### Michigan Public School Employees' Retirement System

A Pension and Other Employee Benefit Trust Fund of the State of Michigan

## Comprehensive Annual Financial Report for the Fiscal Year Ended September 30, 2011



## MPSERS

Prepared by:
Financial Services
for
Office of Retirement Services
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## **INTRODUCTORY SECTION**

Certificate of Achievement Public Pension Standards Award Letter of Transmittal Retirement Board Members Advisors and Consultants Organization Chart

### **Certificate of Achievement**

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Michigan Public School Employees' Retirement System

> For its Comprehensive Annual Financial Report for the Fiscal Year Ended September 30, 2010

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

Affrey R. Enge

Executive Director

### **Public Pension Standards Award**



Public Pension Coordinating Council

## Public Pension Standards Award For Funding and Administration 2011

Presented to

## Michigan Office of Retirement Services

In recognition of meeting professional standards for plan funding and 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

alan Helingle

## **Letter of Transmittal**

Michigan Public School Employees'
Retirement System
P.O. Box 30171
Lansing, Michigan 48909-7671
Telephone 517- 322-5103
Outside Lansing 1-800-381-5111

### STATE OF MICHIGAN

RICK SNYDER, Governor

# DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET

January 20, 2012

The Honorable Rick Snyder Governor, State of Michigan,

Members of the Legislature State of Michigan,

Retirement Board Members and Members, Retirees and Beneficiaries

Ladies and Gentlemen:

We are pleased to present the comprehensive annual financial report of the Michigan Public School Employees' Retirement System (System) for fiscal year 2011.

### INTRODUCTION TO REPORT

The System was established by legislation under Public Act 136 of 1945, and is administered by the Office of Retirement Services (ORS). The number of active and retired members and beneficiaries of the System is presented in Note 1 of the financial statements in the Financial Section of this report. The purpose of the System is to provide benefits for all public school employees. The services performed by the staff provide benefits to members.

### Responsibility

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

#### Internal Control Structure

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

### **Letter of Transmittal (continued)**

The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits likely to be derived and that the valuation of costs and benefits requires estimates and judgments by management. This internal control structure includes maintaining written policies and procedures. Discussion and analysis of net assets and related additions and deductions are presented in the Management Discussion and Analysis which can be found immediately following the Independent Auditor's Report.

### **Independent Auditors and Actuary**

The Office of the Auditor General (OAG), independent auditors, conducted an annual audit of the System. The independent auditor's report on the System's financial statements is included in the Financial Section of this report.

Statute requires that an annual actuarial valuation be conducted. The purpose of the valuation is to evaluate the mortality, service, compensation and other financial experience of the System and to recommend employer-funding rates for the subsequent year. The annual actuarial valuation was completed by Gabriel Roeder Smith & Company for the fiscal year ended September 30, 2010. Actuarial certification and supporting statistics are included in the Actuarial Section of this report.

### Management's Discussion and Analysis (MD&A)

Generally Accepted Accounting Principles (GAAP) require that management provide a narrative introduction, overview, and analysis to accompany the Basic Financial Statements in the form of MD&A. This letter of transmittal is intended to complement MD&A and should be read in conjunction with it. The MD&A can be found immediately following the Independent Auditor's Report.

### PROFILE OF THE GOVERNMENT

In accordance with Public Act 300 of 1980, on October 31, 1980, the Public School Employees' Chapter I Retirement Fund merged with the Public School Employees' Chapter II Retirement Fund to establish the Public School Employees' Retirement System. Public Acts 136 of 1945 and 259 of 1974, respectively, created the two original funds. A twelve-member board governs administrative policy.

Employer contributions and investment earnings provide financing for the System. Under Public Act 91 of 1985, employees may contribute additional amounts into a "member investment plan." Public Act 75 of 2010 established a new Pension Plus Plan which provides all individuals hired on or after July 1, 2010, with a combined Defined Benefit and Defined Contribution benefit structure.

### ECONOMIC CONDITIONS AND OUTLOOK

Despite challenging economic times, the System continues to show steady performance over the long-term.

#### **Investments**

The State Treasurer is the investment fiduciary and custodian of all investments of the System pursuant to State law. The primary investment objective is to maximize the rate of return on the total investment portfolio, consistent with a high degree of prudence and sufficient diversity to eliminate inordinate risks and to meet the actuarial assumption for the investment return rate. The investment activity for the year produced a total rate of return on the portfolio of 6.6%. For the last five years, the System has experienced an annualized rate of return of 2.3%. A summary of asset allocation and rates of return can be found in the Investment Section of this report.

### Accounting System

Transactions of the System are reported on the accrual basis of accounting. Revenues are recorded when earned, and expenses are recorded when incurred. Participants' benefits are recorded when payable by law. We believe that the accounting and administrative internal controls established by the System provide reasonable assurance the System is

## **Letter of Transmittal (continued)**

carrying out its responsibilities in safeguarding its assets, in maintaining the reliability of the financial records for preparing financial statements, and in maintaining accountability for its assets.

### **Funding**

Funds are derived from the excess of additions to plan net assets over deductions from plan net assets. Funds are accumulated by the System to meet future benefit obligations to retirees and beneficiaries. The percentage computed by dividing the actuarial value of assets by the actuarial accrued liability is referred to as the "funded ratio." This ratio provides an indication of the funding status of the System and generally, the greater this percentage, the stronger the System. Effective in fiscal year 2001, the System uses the valuation from the previous fiscal year for this report in accordance with Governmental Accounting Standards Board (GASB) Statement No. 25. Consistent with this approach, the most recent actuarial valuation was performed as of September 30, 2010. The actuarial value of the assets and actuarial accrued liability were \$43.3 billion and \$60.9 billion, respectively, resulting in a funded ratio of 71.1% at September 30, 2010. An historical perspective of funding levels for the System is presented on the Schedule of Funding Progress in the Required Supplementary Information in the Financial Section of this report.

### Postemployment Benefits

An actuarial valuation is completed annually to determine the actuarial accrued liability if the postemployment benefits were to be pre-funded. If these benefits were pre-funded, the actuarial accrued liability as of September 30, 2010, would be \$28.6 billion. GASB Statement No. 43 (implemented in fiscal year 2007) does not require retroactive application of the reporting changes. Therefore, only five valuation years are presented and included in the required supplementary information in this report.

### 2011 MAJOR ACCOMPLISHMENTS

The Michigan Department of Technology, Management and Budget, Office of Retirement Services (ORS) is an innovative retirement organization driven to empower our customers for a successful today and a secure tomorrow. During fiscal year 2011, we refreshed our strategic plan, using input from across the organization. We captured business plan successes and goals for the future, so we can offer our members the highest level of customer service. Below are some of the highlights from the last fiscal year.

### Best in Class Business Practices

Metrics for performance assessment - Each of the five major business processes is developing balanced scorecards that will align across the organization. Our leaders are establishing performance projections and targets to help us measure and manage process performance. The scorecards will also measure performance at different levels within each process, including team-level scorecards and individual scorecards.

<u>Retirement benchmarking survey</u> - In September, we participated in a benchmarking survey with four other retirement systems. The survey helped us gather member satisfaction data, and allowed us to compare our results with those of our peers. We surveyed 1,415 recently retired members of all four of our retirement systems, and had a high response rate of 65.3 percent.

<u>Early Retiree Reinsurance Program (ERRP)</u> - This program allows the retirement system to take advantage of federal funding for health care costs incurred by pre-Medicare retirees and their dependents. We secured funding in the amount of \$101.9 million during fiscal year 2011, which will reduce employer costs.

<u>2012 Healthcare initiative</u> - The Michigan Public School Employees Retirement System board approved the 2012 strategic health plan initiative which will save approximately \$46 million. This initiative keeps the balance between cost and quality, allowing the system to continue to provide a quality healthcare plan that is affordable to members and schools.

<u>Employer contribution rates distribution</u> - For the first time, we provided two years of contribution rates (fiscal year 2011-12 and fiscal year 2012-13) to school employers. This gives schools the ability to plan their budgets more efficiently.

### **Letter of Transmittal (continued)**

### Innovate & Improve Customer Service

<u>Improvements in call center operations</u> - Our focus on people, processes, and technology has resulted in improved efficiency and accuracy in our call center. Improvements in the call routing system means customers can access relevant information faster, and call center representatives can spend more time answering questions. A team of part-time call center staff, coupled with a skills-based call routing system, ensures that customer calls are answered quickly by knowledgeable staff.

<u>Electronic employer payments</u> - We implemented online payments and statements for school employers, eliminating the need for schools to write and mail paper checks. Public school employers can now view the retirement contributions they owe and make payments online. This eliminates mail delays and provides employers their statements the next day. In addition, the payment is now tied to each pay period, making reconciliation of accounts easier for employers.

<u>New online training tutorials for employers</u> - We created two new training tutorials about the wage and contribution process, and other retirement-related information. These provide employers with quick access to "How-To's" for reporting concepts and retirement questions.

<u>Pension Plus 2.0</u>: We updated the Pension Plus website to include a getting started section, tools to help members begin planning for retirement, and links to their online pension and investment accounts. We have also launched two new publications: a Welcome Handout, and Pension Plus News, which is delivered to members twice a year with their defined contribution statements. In addition, employers are now able to report their Pension Plus members through the same process as Member Investment Plan members and Basic members.

<u>Message Board common answers</u> - We created a series of instant answers to common questions on the miAccount message board. Instead of asking a representative technical questions about registration, usernames, and passwords, members can find these answers all in one place, and our representatives can answer more complex, account-specific questions.

### Continuously Renewed Business-Driven Technology

Online member statement delivery - Member Statements are now available in miAccount for active and deferred public school, state, and state police members. Members can access their statements through the Member Statement option on miAccount's left navigation bar. Unlike paper statements printed at the end of the fiscal year, miAccount statements provide up-to-date information. In addition, they provide significant savings in both print and mailing costs and in staff time previously dedicated to the process. With this tool in place, paper statements will no longer be mailed to members.

### **HONORS**

NAGDCA recognition - The Office of Retirement Services is one of three systems to receive a Special Award of Distinction for our achievements in Effective Communication from The National Association of Government Defined Contribution Administrators, Inc (NAGDCA). This recognition was in response to our Personal Evaluation Campaign. Over 4,000 participants took action by getting involved in their retirement accounts and reviewing their asset allocation.

<u>Public Pension Standards Award</u> - The Public Pension Coordinating Council awarded the retirement system with the 2011 Public Pension Standards Award for Funding and Administration.

Orion Development Group highlighted organizational success - Orion Development Group featured the Office of Retirement Services in their fall 2011 newsletter, highlighting the benefits of our process-focused management structure. In 1997, it could take up to six months for applicants to receive their first pension payments. As of July 2011, over 90 percent of initial pension payments are issued in the month of the retiree's effective date.

Government Finance Officers Association award - The Government Finance Officers Association (GFOA) of the United States and Canada awarded the retirement system with the Certificate of Achievement for Excellence in Financial Reporting for our fiscal year 2010 Comprehensive Annual Financial Report (CAFR). This marks the 20th consecutive year ORS has received this prestigious award.

## **Letter of Transmittal (continued)**

### Acknowledgements

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

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

Sincerely,

John E. Nixon, Director

Department of Technology, Management & Budget

Killip & Stoddard

Phillip J. Stoddard, Director Office of Retirement Services

### **Administrative Organization**

### **Retirement Board Members**

Ivy Bailey Active Classroom Teacher Term Expires March 30, 2012

Charles Thomas Retired Finance/Operations Term Expires March 30, 2015

Lenore Croudy Community College Trustee Term Expires March 30, 2012

Diana Osborn, Chair Active Non-Certified Support Term Expires March 30, 2013 Scott Koenigsknecht Active Superintendent Term Expires March 30, 2013

Steven Jagusch General Public - Investments Term Expires March 30, 2012

Timothy Raymer Active Finance/Operations, Non-Superintendent Term Expires March 30, 2012

Edwin Martinson
Reporting Unit Board of
Control

Term Expires March 30, 2012

Jonathon Fielbrandt Active Classroom Teacher Term Expires March 30, 2013

Michael Ringuette General Public -Actuary/Health Insurance Term Expires March 30, 2014

John Olekszyk, Vice Chair Retired Teacher Term Expires March 30, 2014

Michael P. Flanagan Ex-officio Member Representing State Superintendent of Education

### **Administrative Organization**

Department of Technology, Management & Budget
Office of Retirement Services
P.O. Box 30171
Lansing, Michigan 48909-7671
517-322-5103
1-800-381-5111

### **Advisors and Consultants**

Actuaries

Gabriel Roeder Smith & Co. Alan Sonnanstine Southfield, Michigan

**Legal Advisor**Bill Shuette
Attorney General
State of Michigan

**Independent Auditors** 

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

**Medical Advisors** 

Gabriel Roeder Smith & Co. Southfield, Michigan

**Investment Manager and** 

**Custodian** Andy Dillon State Treasurer State of Michigan

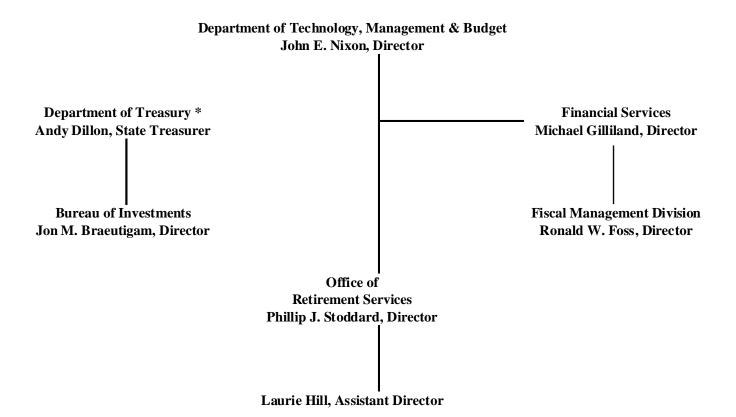
**Investment Performance Measurement** 

State Street Corporation State Street Investment Analytics

Boston, MA

## **Administrative Organization (continued)**

### **Organization Chart**



<sup>\*</sup>The investments of the System are managed by the Michigan Department of Treasury. Information on the investments and the fiduciary, Michigan Department of Treasury, can be found in the Investment Section, Introduction. In addition, see the Investment Section, Schedule of Investment Fees and Schedule of Investment Commissions, for information regarding the investment fees and commissions paid as well as investment professionals utilized by the System.

Independent Auditor's Report
Management's Discussion and Analysis
Basic Financial Statements
Notes to Basic Financial Statements
Required Supplementary Information
Note to Required Supplementary Information
Supporting Schedules

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



STATE OF MICHIGAN
OFFICE OF THE AUDITOR GENERAL
201 N. WASHINGTON SQUARE
LANSING, MICHIGAN 48913
(517) 334-8050
FAX (517) 334-8079

THOMAS H. McTavish, C.P.A. Auditor General

Independent Auditor's Report on the Financial Statements

Ms. Diana Osborn, Chair
Michigan Public School Employees' Retirement System Board
General Office Building
and
John E. Nixon, C.P.A., Director
Department of Technology, Management, and Budget
George W. Romney Building
and
Mr. Phillip J. Stoddard, Director
Office of Retirement Services
Department of Technology, Management, and Budget
General Office Building - Third Floor
Lansing, Michigan

Dear Ms. Osborn, Mr. Nixon, and Mr. Stoddard:

We have audited the accompanying basic financial statements of the Michigan Public School Employees' Retirement System as of and for the fiscal years ended September 30, 2011 and September 30, 2010, as listed in the table of contents. These financial statements are the responsibility of the Michigan Public School Employees' Retirement System'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 the 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 in the first paragraph present fairly, in all material respects, the plan net assets of the Michigan Public School Employees' Retirement System as of September 30, 2011 and September 30, 2010 and the changes in plan net assets for the fiscal years then ended in conformity with accounting principles generally accepted in the United States of America.

### **Independent Auditor's Report (continued)**

In accordance with Government Auditing Standards, we will also issue a report on our consideration of the Michigan Public School Employees' Retirement System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and 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.

The management's discussion and analysis on pages 16 through 20 and the required supplementary information and corresponding note on pages 46 through 48 are not required parts of the basic financial statements but are supplementary information required by the Governmental Accounting Standards Board. 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 basic financial statements taken as a whole. The introductory, investment, actuarial, and statistical sections and the supporting schedules are presented for the purposes of additional analysis and are not a required part of the basic financial statements. The supporting schedules on pages 49 through 55 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.

Sincerely,

Thomas H. Mc Tavish, C.P.A.

Auditor General January 19, 2012

### **Management's Discussion and Analysis**

Our discussion and analysis of the Michigan Public School Employees' Retirement System's (System) financial performance provides an overview of the System's financial activities for the fiscal year ended September 30, 2011. Please read it in conjunction with the transmittal letter in the Introductory Section on page 6 and the basic financial statements, which follow this discussion.

#### FINANCIAL HIGHLIGHTS

- System assets exceeded liabilities at the close of fiscal year 2011 by \$36.1 billion (reported as *net assets*). Net assets are held in trust to meet future benefit payments.
- The System's funding objective is to meet long-term benefit obligations through contributions and investment income. As of September 30, 2010, the funded ratio for pension benefits was approximately 71.1% and the funded ratio for other postemployment benefits (OPEB) was approximately 3.5%.
- Additions for the year were \$4.3 billion, which are comprised primarily of contributions of \$2.8 billion and investment gains of \$1.5 billion.
- Deductions increased over the prior year from \$4.3 billion to \$5.0 billion or 17.1%. Most of this increase represented increased pension and health benefits paid.

## THE STATEMENT OF PLAN NET ASSETS AND THE STATEMENT OF CHANGES IN PLAN NET ASSETS

This Comprehensive Annual Financial Report (CAFR) consists of two financial statements; *The Statements of Pension Plan and Other Postemployment Benefit Plan Net Assets* (page 22) and *The Statements of Changes in Pension Plan and Other Postemployment Benefit Plan Net Assets* (page 23). These financial statements report information about the System, as a whole, and about its financial condition that should help answer the question: Is the System, as a whole, better off or worse off as a result of this year's activities? These statements include all assets and liabilities using the economic resources measurement focus and the accrual basis of accounting. Under the accrual basis of accounting, all revenues and expenses are taken into account regardless of when cash is received or paid.

The Statement of Pension Plan and Other Postemployment Benefit Plan Net Assets presents all of the System's assets and liabilities, with the difference between the two reported as net assets. Over time, increases and decreases in net assets measure whether the System's financial position is improving or deteriorating. The Statement of Changes in Pension Plan and Other Postemployment Benefit Plan Net Assets presents how the System's net assets changed during the most recent fiscal year. These two financial statements should be reviewed along with the Schedules of Funding Progress (page 46) and Schedules of Employer and Other Contributions (page 47) to determine whether the System is becoming financially stronger or weaker and to understand changes over time in the funded status of the System.

### Management's Discussion and Analysis (continued)

### FINANCIAL ANALYSIS

System total assets as of September 30, 2011, were \$41.7 billion and were mostly comprised of cash, investments, and contributions due from employers. Total assets decreased \$393.6 million or (0.9)% between fiscal years 2010 and 2011. Total assets increased \$0.3 billion or 0.8% between fiscal years 2009 and 2010 due to net investment gains.

Total liabilities as of September 30, 2011, were \$5.6 billion and were comprised of warrants outstanding, accounts payable, and obligations under securities lending. Total liabilities increased \$334.2 million or 6.3% between fiscal years 2010 and 2011 primarily due to increased accounts payables and obligations under securities lending. Total liabilities decreased \$1.3 billion or (19.8)% between fiscal years 2009 and 2010 due to decreased obligations under securities lending.

System assets exceeded its liabilities at the close of fiscal year 2011 by \$36.1 billion. Total net assets held in trust for pension and OPEB benefits decreased \$727.8 million or (2.0)% from the previous year, primarily due to increased accounts payables and decreased net investment income. This compares to fiscal year 2010, when net assets increased by \$1.6 billion or 4.7% from the prior year.

## Net Assets (in thousands)

|                           |               | Increase   |               | Increase   |               |
|---------------------------|---------------|------------|---------------|------------|---------------|
|                           | 2011          | (Decrease) | 2010          | (Decrease) | 2009          |
| Assets                    |               |            |               |            |               |
| Cash                      | \$ 121,129    | 128.0 %    | \$ 53,116     | (54.3) %   | \$ 116,225    |
| Receivables               | 347,205       | (35.6)     | 539,253       | 32.7       | 406,507       |
| Investments               | 41,278,590    | (0.6)      | 41,548,173    | 0.6        | 41,281,202    |
| <b>Total Assets</b>       | 41,746,924    | (0.9)      | 42,140,542    | 0.8        | 41,803,934    |
| Liabilities               |               |            |               |            |               |
| Warrants outstanding      | 4,381         | (36.9)     | 6,948         | 16.6       | 5,961         |
| Accounts payable and      |               |            |               |            |               |
| other accrued liabilities | 327,750       | 222.3      | 101,694       | (50.8)     | 206,895       |
| Obligations under         |               |            |               |            |               |
| securities lending        | 5,287,823     | 2.1        | 5,177,097     | (18.8)     | 6,379,350     |
| <b>Total Liabilities</b>  | 5,619,954     | 6.3        | 5,285,739     | (19.8)     | 6,592,206     |
| <b>Total Net Assets</b>   | \$ 36,126,969 | (2.0) %    | \$ 36,854,803 | 4.7 %      | \$ 35,211,728 |

### Management's Discussion and Analysis (continued)

#### ADDITIONS TO PLAN NET ASSETS

The reserves needed to finance pension and other postemployment benefits are accumulated through the collection of employer and employee contributions and through earnings on investments. Contributions and net investment income for fiscal year 2011 totaled approximately \$4.3 billion.

Total additions for fiscal year 2011 decreased approximately \$1.6 billion or (27.6)% from those of fiscal year 2010 due primarily to decreased net investment income. Total additions increased approximately \$6.5 billion or 1,164.4% from fiscal year 2009 to fiscal year 2010 due primarily to increased net investment income. Total contributions increased between fiscal years 2010 and 2011 by \$613 million or 27.6%, while net investment income decreased \$2.2 billion or (60.6)%. Total contributions increased between fiscal years 2009 and 2010 by \$79.1 million or 3.7%, while net investment income increased \$6.4 billion or 237.7%. The Investment Section of this report reviews the results of investment activity for fiscal year 2011.

#### DEDUCTIONS FROM PLAN NET ASSETS

The primary expenses of the System include the payment of pension benefits to members and beneficiaries, payment for health, dental and vision benefits, refund of contributions to former members, and the cost of administering the System. Total deductions for fiscal year 2011 were \$5.0 billion, an increase of 17.1% over fiscal year 2010 expenses. Total deductions for fiscal year 2010 were \$4.3 billion, which was an increase of 3.9% over fiscal year 2009 expenses.

The health, dental, and vision care expenses during the year increased by \$259.3 million or 39.9%, from \$650.7 million to \$910.0 million. This compares to an decrease of \$75.5 million or (10.4)%, from \$726.2 million to \$650.7 million between fiscal years 2009 and 2010. The payment of pension benefits increased by \$417.0 million or 11.8% between fiscal years 2010 and 2011 and by \$246.9 million or 7.5% from fiscal year 2009 to fiscal year 2010. In fiscal year 2011, the increase in pension benefit expenses resulted from an increase in retirees (4,713) and an increase in benefit payments to retirees. In fiscal year 2010, the increase in pension benefit expenses resulted from increases in retirees (15,800) and an increase in benefit payments to retirees. Administrative expenses increased by \$56.3 million or 70.0% between fiscal years 2010 and 2011, primarily due to an increase in OPEB plan administrative expenses. Administrative expenses decreased by \$10.9 million or (11.9)% between fiscal years 2009 and 2010, primarily due to a decrease in OPEB plan administrative expenses.

## Management's Discussion and Analysis (continued)

## Changes in Plan Net Assets (in millions)

|  | <br>2011       | Increase<br>(Decrease) | _ | 2010        | Increase<br>(Decrease) | 2009           |   |
|--|----------------|------------------------|---|-------------|------------------------|----------------|---|
| Additions                              |                |                        |   |             |                        |                |   |
| Member contributions                   | \$<br>717.2    | 42.6 %                 | 5 | \$ 502.9    | 15.8 %                 | \$<br>434.3    |   |
| Employer contributions                 | 1,950.9        | 16.4                   |   | 1,676.4     | (1.7)                  | 1,705.8        |   |
| Other governmental contributions       | 163.9          | 310.1                  |   | 40.0        | 72,270.6               | 0.1            | * |
| Net investment income (loss)           | 1,464.7        | (60.6)                 |   | 3,713.1     | 237.7                  | (2,697.1)      |   |
| Miscellaneous income                   | 0.8            | 1.0                    |   | 0.8         | 34.7                   | 0.6            |   |
| Total additions                        | 4,297.6        | (27.6)                 | _ | 5,933.1     | 1,166.4                | (556.3)        | 1 |
| Deductions                             |                |                        |   |             |                        |                |   |
| Pension benefits                       | 3,942.0        | 11.8                   |   | 3,525.0     | 7.5                    | 3,278.1        |   |
| Health care benefits                   | 910.0          | 39.9                   |   | 650.7       | (10.4)                 | 726.3          |   |
| Refunds and transfers to other systems | 36.7           | 7.8                    |   | 34.0        | 0.0                    | 34.0           |   |
| Administrative expenses                | <br>136.7      | 70.0                   |   | 80.4        | (11.9)                 | <br>91.3       |   |
| Total deductions                       | 5,025.4        | 17.1                   | _ | 4,290.1     | 3.9                    | 4,129.7        |   |
| Net increase (decrease)                | (727.8)        | (144.3)                |   | 1,643.1     | 135.1                  | (4,686.1)      |   |
| Net Assets - Beginning of Year         | <br>36,854.8   | 4.7                    |   | 35,211.7    | (11.7)                 | 39,897.8       |   |
| Net Assets - End of Year               | \$<br>36,127.0 | (2.0) %                | 5 | \$ 36,854.8 | 4.7 %                  | \$<br>35,211.7 |   |

<sup>\*</sup> The amount represents less than \$100,000.

## Management's Discussion and Analysis (continued)

### RETIREMENT SYSTEM AS A WHOLE

The System's combined net assets experienced a decrease in 2011, after an increase in 2010 and a decrease in 2009. The System's rate of return decreased an overall 2.2% from an 8.8% return in fiscal year 2010 to a 6.6% return during fiscal year 2011. Management believes that the system remains financially sound and positioned to meet its ongoing benefit obligations due, in part, to a prudent investment program, cost controls, and strategic planning.

#### CONTACTING SYSTEM FINANCIAL MANAGEMENT

This financial report is designed to provide the Retirement Board, our membership, taxpayers, investors, and creditors with a general overview of the System's finances and to demonstrate the System's accountability for the money it receives. If you have any questions about this report or need additional financial information, contact the Office of Retirement Services, P.O. Box 30171, Lansing, MI 48909-7671.

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## **Statements of Pension Plan and** Other Postemployment Benefit Plan Net Assets As of September 30, 2011 and 2010

|  |                   | September 30, 2011 |                   |                   | September 30, 2010 |                   |
|--|-------------------|--------------------|-------------------|-------------------|--------------------|-------------------|
|  | Pension           | OPEB               |                   | Pension           | OPEB               |                   |
|  | Plan              | Plan               | Total             | Plan              | Plan               | Total             |
| Assets:  |                   |                    |                   |                   |                    |                   |
| Equity in common cash                          | \$ 115,573,063    | \$ 5,555,457       | \$ 121,128,520    | \$ 51,537,845     | \$ 1,578,148       | \$ 53,115,993     |
| Receivables:                                   |                   |                    |                   |                   |                    |                   |
| Amounts due from member                        | 524,868           |                    | 524,868           | 500,232           |                    | 500,232           |
| Amounts due from employer                      | 99,181,151        | 28,695,072         | 127,876,223       | 145,452,585       | 28,467,526         | 173,920,111       |
| Amounts due from federal agencies              |                   | 62,646,622         | 62,646,622        |                   | 9,442,646          | 9,442,646         |
| Amounts due from other funds                   |                   |                    |                   | 59,720,553        |                    | 59,720,553        |
| Amounts due from other                         |                   |                    |                   |                   | 106,540,744        | 106,540,744       |
| Amounts due from employer long term            | 149,912,192       |                    | 149,912,192       | 183,250,331       |                    | 183,250,331       |
| Interest and dividends                         | 6,009,433         | 235,353            | 6,244,786         | 5,729,787         | 148,820            | 5,878,607         |
| Total receivables                              | 255,627,644       | 91,577,047         | 347,204,691       | 394,653,488       | 144,599,736        | 539,253,224       |
| Investments:                                   |                   |                    |                   |                   |                    |                   |
| Short term investment pools                    | 1,246,540,091     | 354,629,547        | 1,601,169,638     | 334,020,337       | 8,675,523          | 342,695,860       |
| Fixed income pools                             | 5,411,702,431     | 211,943,404        | 5,623,645,835     | 6,035,961,419     | 156,772,259        | 6,192,733,678     |
| Domestic equity pools                          | 10,173,927,306    | 398,450,731        | 10,572,378,037    | 12,881,119,105    | 334,561,804        | 13,215,680,909    |
| Real estate pool                               | 3,716,827,115     | 145,565,467        | 3,862,392,582     | 3,118,647,580     | 81,000,754         | 3,199,648,334     |
| Alternative investment pools                   | 8,129,287,277     | 318,374,641        | 8,447,661,918     | 7,928,212,319     | 205,919,765        | 8,134,132,084     |
| International equity pools                     | 4,421,424,526     | 173,160,254        | 4,594,584,780     | 4,903,629,695     | 127,362,163        | 5,030,991,858     |
| Absolute return pools                          | 2,245,174,519     | 87,929,803         | 2,333,104,322     | 1,363,921,000     | 35,425,173         | 1,399,346,173     |
| Securities lending collateral                  | 4,083,718,870     | 159,934,381        | 4,243,653,251     | 3,930,848,298     | 102,096,075        | 4,032,944,373     |
| Total investments                              | 39,428,602,135    | 1,849,988,228      | 41,278,590,363    | 40,496,359,753    | 1,051,813,516      | 41,548,173,269    |
| Total assets                                   | 39,799,802,842    | 1,947,120,732      | 41,746,923,574    | 40,942,551,086    | 1,197,991,400      | 42,140,542,486    |
| Liabilities:                                   |                   |                    |                   |                   |                    |                   |
| Warrants outstanding                           | 4,215,803         | 165,107            | 4,380,910         | 6,771,951         | 175,888            | 6,947,839         |
| Accounts payable and other accrued liabilities | 32,397,230        | 295,352,811        | 327,750,041       | 34,265,275        | 67,429,407         | 101,694,682       |
| Obligations under                              | ,,                | _,,,,,,,,,         | 2=1,123,212       |                   | ·,,,,              | ,,                |
| securities lending                             | 5,088,536,414     | 199,286,961        | 5,287,823,375     | 5,046,036,015     | 131,060,888        | 5,177,096,903     |
| Total liabilities                              | 5,125,149,447     | 494,804,879        | 5,619,954,326     | 5,087,073,241     | 198,666,183        | 5,285,739,424     |
| Net Assets Held in Trust for                   |                   |                    |                   |                   |                    |                   |
| Pension and OPEB Benefits                      | \$ 34,674,653,395 | \$ 1,452,315,853   | \$ 36,126,969,248 | \$ 35,855,477,845 | \$ 999,325,217     | \$ 36,854,803,062 |

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

## **Statements of Changes in Pension Plan** and Other Postemployment Benefit Plan Net Assets For Fiscal Years Ended September 30, 2011 and 2010

|   |                   | September 30, 2011 |                   |                   | September 30, 2010 | )                 |
|---|-------------------|--------------------|-------------------|-------------------|--------------------|-------------------|
|   | Pension           | OPEB               |                   | Pension           | OPEB               |                   |
|   | Plan              | Plan               | Total             | Plan              | Plan               | Total             |
| Additions:                              |                   |                    |                   |                   |                    |                   |
| Contributions:                          |                   |                    |                   |                   |                    |                   |
| Member contributions                    | \$ 332,209,134    | \$ 384,978,107     | \$ 717,187,241    | \$ 377,748,755    | \$ 125,160,304     | \$ 502,909,059    |
| Employer contributions:                 |                   |                    |                   |                   |                    |                   |
| Colleges, universities and federal      | 95,860,639        | 82,554,711         | 178,415,350       | 86,503,717        | 64,319,424         | 150,823,141       |
| School districts and other              | 1,060,200,264     | 712,284,900        | 1,772,485,164     | 914,747,956       | 610,797,729        | 1,525,545,685     |
| Other governmental contributions        |                   | 163,948,595        | 163,948,595       |                   | 39,979,715         | 39,979,715        |
| Total contributions                     | 1,488,270,037     | 1,343,766,313      | 2,832,036,350     | 1,379,000,428     | 840,257,172        | 2,219,257,600     |
| Investment income (loss):               |                   |                    |                   |                   |                    |                   |
| Net appreciation (depreciation) in fair |                   |                    |                   |                   |                    |                   |
| value of investments                    | 670,314,955       | 26,523,048         | 696,838,003       | 2,871,968,729     | 75,472,172         | 2,947,440,901     |
| Interest, dividends, and other          | 730,519,918       | 109,203,369        | 839,723,287       | 754,872,112       | 76,905,104         | 831,777,216       |
| Investment expenses:                    | 750,517,710       | 100,200,500        | 037,723,207       | 73 1,072,112      | 70,505,101         | 651,777,210       |
| Real estate operating expenses          | (1,962,422)       | (77,649)           | (2,040,071)       | (2,006,675)       | (52,733)           | (2,059,408)       |
| Other investment expenses               | (122,942,825)     | (4,864,606)        | (127,807,431)     | (128,129,251)     | (3,367,095)        | (131,496,346)     |
| Securities lending activities:          | (,,)              | (1,000,000)        | (==:,==:, :==)    | (,,)              | (=,==,,===)        | (, 0 0,0)         |
| Securities lending income               | 71,619,453        | 2,833,841          | 74,453,294        | 88,594,301        | 2,328,161          | 90,922,462        |
| Securities lending expenses             | (15,805,411)      | (625,389)          | (16,430,800)      | (22,847,074)      | (600,396)          | (23,447,470)      |
|   |                   |                    |                   |                   |                    |                   |
| Net investment income (loss)            | 1,331,743,668     | 132,992,614        | 1,464,736,282     | 3,562,452,142     | 150,685,213        | 3,713,137,355     |
| Transfers from other systems            | 4,583             |                    | 4,583             | 16,504            |                    | 16,504            |
| Miscellaneous income                    | 703,962           | 84,753             | 788,715           | 573,818           | 195,136            | 768,954           |
| Total additions                         | 2,920,722,250     | 1 476 942 690      | 4 207 5 (5 020    | 4.042.042.902     | 001 127 521        | 5 022 190 412     |
| Total auditors                          | 2,820,722,250     | 1,476,843,680      | 4,297,565,930     | 4,942,042,892     | 991,137,521        | 5,933,180,413     |
| Deductions:                             |                   |                    |                   |                   |                    |                   |
| Benefits and refunds paid to plan       |                   |                    |                   |                   |                    |                   |
| members and beneficiaries:              |                   |                    |                   |                   |                    |                   |
| Retirement benefits                     | 3,942,027,101     |                    | 3,942,027,101     | 3,525,020,341     |                    | 3,525,020,341     |
| Health benefits                         |                   | 815,311,950        | 815,311,950       |                   | 566,550,299        | 566,550,299       |
| Dental/vision benefits                  |                   | 94,711,184         | 94,711,184        |                   | 84,127,158         | 84,127,158        |
| Refunds of contributions                | 36,591,037        | 39,133             | 36,630,170        | 33,873,358        | 52,545             | 33,925,903        |
| Transfers to other systems              | 2,169             |                    | 2,169             | 50,212            |                    | 50,212            |
| Administrative expenses                 | 22,926,393        | 113,790,777        | 136,717,170       | 26,000,699        | 54,431,010         | 80,431,709        |
| Total deductions                        | 4,001,546,700     | 1,023,853,044      | 5,025,399,744     | 3,584,944,610     | 705,161,012        | 4,290,105,622     |
| Net Increase (Decrease)                 | (1,180,824,450)   | 452,990,636        | (727,833,814)     | 1,357,098,282     | 285,976,509        | 1,643,074,791     |
|   | (1,100,024,400)   | 132,770,030        | (121,033,014)     | 1,551,070,202     | 203,710,307        | 1,013,017,171     |
| Net Assets Held in Trust for            |                   |                    |                   |                   |                    |                   |
| Pension and OPEB Benefits:              |                   |                    |                   |                   |                    |                   |
| Beginning of Year                       | 35,855,477,845    | 999,325,217        | 36,854,803,062    | 34,498,379,563    | 713,348,708        | 35,211,728,271    |
| End of Year                             | \$ 34,674,653,395 | \$ 1,452,315,853   | \$ 36,126,969,248 | \$ 35,855,477,845 | \$ 999,325,217     | \$ 36,854,803,062 |

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

### Notes to Basic Financial Statements September 30, 2011 and 2010

### **NOTE 1 - PLAN DESCRIPTION**

#### ORGANIZATION

The Michigan Public School Employees' Retirement System (System) is a cost-sharing, multiple employer, state-wide, defined benefit public employee retirement plan governed by the State of Michigan (State) originally created under Public Act 136 of 1945, recodified and currently operating under the provisions of Public Act 300 of 1980, as amended. Section 25 of this act establishes the board's authority to promulgate or amend the provisions of the System. The System's pension plan was established by the State to provide retirement, survivor and disability benefits to public school employees. In addition, the System's health plan provides all retirees with the option of receiving health, dental and vision coverage under the Michigan Public School Employees' Retirement Act. There are 714 participating employers. A list of employers is provided in the Statistical Section. The System is a qualified pension trust fund under section 401(a) of the Internal Revenue Code. By statute, employees of K-12 public school districts, public school academies, district libraries, tax-supported community colleges and seven universities may be members. The seven universities are: Eastern Michigan, Central Michigan, Northern Michigan, Western Michigan, Ferris State, Michigan Technological and Lake Superior State. Employees, who first become employed by one of the seven universities on or after January 1, 1996, become members of an alternative plan.

The System's financial statements are included as a pension and other employee benefit trust fund in the combined financial statements of the State.

The System is administered by the Office of Retirement Services within the Michigan Department of Technology, Management & Budget. The Department Director appoints the Office Director who serves as Executive Secretary to the System's Board, with whom the general oversight of the System resides. The State Treasurer serves as the investment officer and custodian for the System.

#### **MEMBERSHIP**

At September 30, 2011 and 2010, the System's membership consisted of the following:

| Retirees and beneficiaries                 |                               |                               |
|--|-------------------------------|-------------------------------|
| currently receiving benefits:              | 2011                          | 2010                          |
| Regular benefits                           | 170,961                       | 166,749                       |
| Survivor benefits                          | 15,654                        | 15,308                        |
| Disability benefits                        | 5,820_                        | 5,665                         |
| Total                                      | 192,435                       | 187,722                       |
| Current Employees: Vested Non-vested Total | 114,680<br>121,980<br>236,660 | 113,688<br>128,880<br>242,568 |
| Inactive employees entitled                |                               |                               |
| to benefits and not yet                    |                               |                               |
| receiving them                             | 15,090                        | 15,026                        |
| Total all members                          | 444,185                       | 445,316                       |

### **Notes to Basic Financial Statements (continued)**

Enrollment in the health plan is voluntary. The number of participants is as follows:

| Health, Dental and Vision Plan   | 2011    | 2010    |
|----------------------------------|---------|---------|
| Eligible participants            | 192,435 | 187,722 |
| Participants receiving benefits: |         |         |
| Health                           | 142,863 | 140,771 |
| Dental/Vision                    | 153,822 | 150,352 |

#### **BENEFIT PROVISIONS - PENSION**

#### Introduction

Benefit provisions of the defined benefit pension plan are established by State statute, which may be amended. Public Act 300 of 1980, as amended, establishes eligibility and benefit provisions for the defined benefit pension plan. Retirement benefits are determined by final average compensation and years of service. Members are eligible to receive a monthly benefit when they meet certain age and service requirements. The System also provides disability and survivor benefits.

A member who leaves Michigan public school employment may request a refund of his or her member contribution account. A refund cancels a former member's rights to future benefits. However, returning members who previously received a refund of their contributions may reinstate their service through repayment of the refund upon satisfaction of certain requirements.

### Pension Reform 2010

On May 19, 2010, the Governor signed Public Act 75 of 2010 into law. As a result, any member of MPSERS who became a member of MPSERS after June 30, 2010 is a Pension Plus member. The Pension Plus Plan pairs a guaranteed retirement income (Defined Benefit pension) with a flexible and transferable retirement savings (Defined Contribution) account.

### Regular Retirement

The retirement benefit is based on a member's years of credited service (employment) and final average compensation. Final average compensation is calculated based on the member's highest total wages earned during a specific period of consecutive calendar months divided by the service credit accrued during that same time period. For a Member Investment Plan (MIP) member, who became a member of MPSERS prior to July 1, 2010, the averaging period is 36 consecutive months. For a Pension Plus member, who became a member of MPSERS after June 30, 2010, the averaging period is 60 consecutive months. For a Basic Plan member, this period is the 60 consecutive months yielding the highest total wages. The annual pension is paid monthly for the lifetime of a retiree and equals 1.5% of a member's final average compensation multiplied by the total number of years of credited service.

A MIP member who became a member of MPSERS prior to July 1, 2010 may retire at:

- 1. any age with 30 or more years of credited service; or
- 2. age 60 with 10 or more years of credited service; or
- 3. age 60 with 5 years of credited service provided the member has worked through his or her 60th birthday and has credited service in each of the five school fiscal years immediately preceding the retirement effective date.

A Pension Plus member who became a member of MPSERS after June 30, 2010 may retire at age 60 with 10 or more years of credited service.

### **Notes to Basic Financial Statements (continued)**

A Basic Plan member may retire at:

- 1. age 55 with 30 or more years of credited service; or
- 2. age 60 with 10 or more years of credited service.

There is no mandatory retirement age.

### Early Retirement

A member may retire with an early permanently reduced pension:

- 1. after completing at least 15 but less than 30 years of credited service; and
- 2. after attaining age 55; and
- 3. with credited service in each of the 5 school years immediately preceding the pension effective date.

The early pension is computed in the same manner as a regular pension, but is permanently reduced 0.5% for each full and partial month between the pension effective date and the date the member will attain age 60.

### Deferred Retirement

If a member terminates employment before attaining the age qualification, but after accruing 10 or more years of credited service, the member becomes a deferred member and is eligible for a pension at the time the age qualification is attained.

### Non-Duty Disability Benefit

A member with 10 or more years of credited service who becomes totally and permanently disabled due to any non-duty related cause and who has not met the age requirement for a regular pension is eligible for a non-duty disability pension computed in the same manner as an age and service pension, upon recommendation from the member's personal physician and the Retirement Board physician and the approval of the Retirement Board. An Annual Certification of Disability is conducted each January. Upon prior approval, total disability benefits plus authorized outside earnings are limited to 100% of final average compensation (increased by two percent for each year retired; first year 100%, next year 102%, etc).

#### Duty Disability Benefit

A member who becomes totally and permanently disabled as a result of a duty-related cause, who has not met the age and service requirement for a regular pension, and who is in receipt of weekly workers' compensation is eligible for a duty disability pension computed in the same manner as an age and service pension (but based upon a minimum of 10 years of service) upon recommendation from the member's personal physician and the Retirement Board physician and the approval of the Retirement Board. An Annual Certification of Disability is conducted each January. Upon prior approval, total disability benefits plus authorized outside earnings are limited to 100% of final average compensation (increased by two percent for each year retired; first year 100%, next year 102%, etc).

### Forms of Payment

The election of a pension option is made at the time of application. Once a member has retired, the option choice is irrevocable. The pension effective date is the first of the calendar month following the date the member has satisfied the age and service requirements, has terminated public school employment and has the completed application forms on file with the System for a period of 15 days. A retroactive pension can be paid for no more than 12 calendar months. Thus, delay in filing the application can result in a loss of some retroactive pension benefits. An applicant may select only one of the following options.

### **Notes to Basic Financial Statements (continued)**

<u>Straight Life Pension</u> - The Straight Life Pension pays the largest level pension a retiree can receive during his or her lifetime and stops with the month of a retiree's death. There are no monthly benefits for a beneficiary. The pension benefit is computed with no beneficiary rights. If the retiree made contributions while an employee and has not received the total accumulated contributions before death, a refund of the balance of the contributions is made to the beneficiary of record. If the retiree did not make any contributions, there will not be payments to any beneficiaries.

<u>Survivor Options</u> - Under the Survivor Options, 100% Survivor Pension, 100% Equated, 75% Survivor Pension, 75% Equated, 50% Survivor Pension and 50% Equated, the reduction is an actuarial determination dependent upon the combined life expectancies of a retiree and a beneficiary, and varies from case to case. A beneficiary may only be a spouse, brother, sister, parent or child (including an adopted child) of a retiring member. If the beneficiary pre-deceases a retiree, the pension will revert to either the Straight Life or Straight Life Equated amount ("pop-up" provision). If, however, a retiree was single at the time of retirement and subsequently married, the retiree can request to nominate a new spouse if they elected the straight life option at retirement. Also, if a retiree was married at the time of retirement and has since been widowed and remarried, the retiree can request to nominate a new spouse as a pension beneficiary as long as they elected a survivor option for the spouse at the time of retirement.

<u>100% Survivor Pension</u> - pays a reduced pension to a retiree. The month after a retiree's death, the same amount will be paid to a designated beneficiary for the remainder of his or her lifetime.

<u>75% Survivor Pension</u> - pays a reduced pension to a retiree. The month after a retiree's death, 75% of the pension amount will be paid to a designated beneficiary for the remainder of his or her lifetime.

<u>50% Survivor Pension</u> - pays a reduced pension to a retiree. The month after a retiree's death, 50% of the pension amount will be paid to a designated beneficiary for the remainder of his or her lifetime.

<u>Equated Plan</u> - The Equated Plan may be combined with the Straight Life, 100% Survivor, 75% Survivor, or 50% Survivor Pension by any member under age 61, except a disability applicant. The Equated Plan provides a higher pension every month until age 62, at which time the monthly pension is permanently decreased to a lower amount than the Straight Life, 100%, 75%, or 50% Survivor alone would provide.

The intent of the Equated Plan is for the retiree's pension to decrease at age 62 by approximately the same amount as that person's Social Security benefit will provide. The System pension until age 62 should be about the same as the combined System pension and Social Security after age 62.

The projected Social Security pension the retiring member obtains from the Social Security Administration and furnishes to the System is used in the Equated Plan calculation. The actual Social Security pension may vary from the estimate.

NOTE: The reduction in the pension at age 62 pertains to the Equated Plan only and affects only the retiree. A beneficiary under 100% Equated, 75% Equated or 50% Equated will receive the 100%, 75%, or 50% Survivor amount the month following the retiree's death as if the Equated Plan had not been chosen. A beneficiary does not participate in the Equated Plan.

### **Notes to Basic Financial Statements (continued)**

### Survivor Benefit

A non-duty survivor pension is available if a Member Investment Plan (MIP) member has 10 years of credited service or, if age 60 or older, with five years of credited service; the date they became a MIP member does not matter. The Basic Plan provides a survivor pension with 15 years of credited service or, if age 60 or older, with 10 years of credited service. An active member may nominate as a survivor beneficiary a spouse, child(ren) (including adopted child(ren)), brother, sister, or parent. If other than the spouse is nominated and a spouse exists, the spouse must waive this benefit. If no beneficiary has been nominated, the beneficiary is automatically the spouse; or, if there is no spouse, unmarried children under age 18 share the benefit equally until age 18. The benefit is computed as a regular pension but reduced in accordance with an Option 2 (100% survivor pension factor). The pension begins the first of the month following the member's death. In the event of the death of a deferred member, the System begins payment to the nominated beneficiary at the time the member would have attained the minimum age qualification.

A duty survivor pension is payable if weekly Workers' Compensation is being paid to the eligible beneficiary due to the member's death. A spouse receives the benefit (based on a minimum of 10 years of service credit) reduced in accordance with a 100% survivor pension factor. If there is no spouse, unmarried children under age 18 share the benefit equally until age 18; if there is no spouse or child(ren), a disabled and dependent parent is eligible.

### Post Retirement Adjustments

A retiree who became a Member Investment Plan (MIP) member prior to July 1, 2010, receives an annual post-retirement non-compounded increase of three percent of the initial pension in the October following twelve months of retirement. Basic Plan members do not receive an annual post-retirement increase, but are eligible to receive a supplemental payment in those years when investment earnings exceed actuarial assumptions. Pension Plus members do not receive an annual post-retirement increase.

On January 1, 1990, pre-October 1, 1981, retirees received an increase that ranged from 1% to 22% dependent upon the pension effective date. On October 1, 1990, the base pension of all retirees with an effective pension date of January 1, 1987, or earlier was increased to include all prior post-retirement adjustments.

On January 1, 1986, all recipients through calendar year 1985 received a permanent 8% increase that established the 1986 base pension. In addition, each October, retirees with a pension effective date of January 1, 1987, or earlier receive a fixed increase equal to 3% of the base pension. Both increases are deducted from the distribution of excess investment income, if any. Beginning in 1983, eligible recipients receive an annual distribution of excess investment income, if any.

One time upward adjustments were made in 1972, 1974, 1976, and 1977 for retirees who retired on or after July 1, 1956, and were eligible for Social Security benefits. (Social Security coverage was enacted by referendum in 1956). The minimum base pension of retirees who were unable to qualify for Social Security through their public school employment (essentially pre-July 1, 1956 retirees), was increased in 1965, 1971, 1972, 1974, and 1981 with a percentage increase granted in 1976 and 1977.

### **Notes to Basic Financial Statements (continued)**

#### **Member Contributions**

Mandatory member contributions were phased out between 1974 and 1977, with the plan remaining noncontributory until January 1, 1987, when the Member Investment Plan (MIP) was enacted. MIP members enrolled prior to January 1, 1990, contribute at a permanently fixed rate of 3.9% of gross wages. The MIP contribution rate was 4.0% from January 1, 1987, the effective date of the MIP, until January 1, 1990, when it was reduced to 3.9%. Members first hired between January 1, 1990 and June 30, 2008, and returning members who did not work between January 1, 1987, through December 31, 1989, contribute at the following graduated permanently fixed contribution rates: 3% of the first \$5,000; 3.6% of \$5,001 through \$15,000; 4.3% of all wages over \$15,000. Members first hired July 1, 2008, or later including Pension Plus Plan members, contribute at the following graduated permanently fixed contribution rates: 3% of the first \$5,000; 3.6% of \$5,001 through \$15,000; 6.4% of all wages over \$15,000.

Basic Plan members make no contributions. For a limited period ending December 31, 1992, an active Basic Plan member could enroll in the MIP by paying the contributions that would have been made had enrollment occurred initially on January 1, 1987, or on the date of hire, plus interest. MIP contributions at the rate of 3.9% of gross wages begin at enrollment. Actuarial rate of interest is posted to member accounts on July 1st on all MIP monies on deposit for 12 months. If a member leaves public school service and no pension is payable, the member's accumulated contributions plus interest, if any, are refundable.

### **Employer Contributions**

Each school district or reporting entity is required to contribute the full actuarial funding contribution amount to fund pension benefits.

### BENEFIT PROVISIONS - OTHER POSTEMPLOYMENT

### Introduction

Benefit provisions of the postemployment healthcare plan are established by State statute, which may be amended. Public Act 300 of 1980, as amended, establishes eligibility and benefit provisions. Retirees have the option of health coverage, which is currently funded on a cash disbursement basis. The System has contracted to provide the comprehensive group medical, hearing, dental and vision coverages for retirees and beneficiaries. A significant portion of the premium is paid by the System with the balance deducted from the monthly pension of each retiree health care recipient. Public Act 75 of 2010 requires each actively employed member of MPSERS after June 30, 2010 to contribute 3% (or 1.5%) of their compensation to offset employer contributions for health care benefits of current retirees. For the school fiscal year that began July 1, 2010, members who were employed by a reporting unit and were paid less than \$18,000 in the prior school fiscal year and members who were hired on or after July 1, 2010, with a starting salary less than \$18,000 are required to contribute 1.5% of the member's compensation. For each school fiscal year that begins on or after July 1, 2011, members shall contribute 3% of compensation into the health care funding account.

Pension recipients are eligible for fully paid Master Health Plan coverage and 90% paid Dental Plan, Vision Plan and Hearing Plan coverage with the following exceptions:

- 1. Retirees not yet eligible for Medicare coverage pay an amount equal to the Medicare Part B premiums.
- 2. Retirees with less than 30 years of service, who terminate employment after October 31, 1980, with vested deferred benefits, are eligible for partially employer paid health benefit coverage (no payment for less than 21 years of service).
- 3. To limit future liabilities of Other Postemployment Benefits a graded premium health insurance subsidy has been put into place for all members of the Michigan Public School Employees Retirement System who first work on or after July 1, 2008.

### **Notes to Basic Financial Statements (continued)**

Dependents are eligible for health care coverage if they meet the dependency requirements set forth in Public Act 300 of 1980, as amended.

The number of participants and other relevant financial information are as follows:

|                                    | 2011            | 2010           |
|------------------------------------|-----------------|----------------|
| Health, Dental and Vision Plan     |                 |                |
| Eligible participants              | 192,435         | 187,722        |
| Participants receiving benefits:   |                 |                |
| Health                             | 142,863         | 140,771        |
| Dental/Vision                      | 153,822         | 150,352        |
| Expenses for the year              | \$1,023,853,044 | \$ 705,161,012 |
| Employer payroll contribution rate | 8.50%           | 6.81%          |

The only requirements for health benefits are that the retiree or beneficiary make application and be in receipt of a monthly pension. Applications for enrollment after retirement are accepted anytime during the year, with coverage effective six months following the receipt of the application.

### NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### Basis of Accounting and Presentation

The System's financial statements are prepared using the accrual basis of accounting. Contributions from the employers are recognized as revenue when due and payable. Benefits and refunds are recognized when due and payable in accordance with the terms of the System.

### Reserves

Reserve for Employee Contributions - This reserve represents active member contributions and interest less amounts transferred to the Reserve for Retired Benefit Payments for regular and disability retirement, amounts refunded to terminated members, and amounts transferred to the Reserve for Employer Contributions representing unclaimed funds. Members no longer contribute to this reserve except to purchase eligible service credit or repay previously refunded contributions. At September 30, 2011, and 2010, the balance in this reserve was \$1.5 billion and \$1.5 billion, respectively.

Reserve for Pension Plus Employee Contributions - This reserve represents active member contributions and interest less amounts transferred to the Reserve for Pension Plus Retired Benefit Payments for regular retirement, amounts refunded to terminated members, and amounts transferred to the Reserve for Pension Plus Employer Contributions representing unclaimed funds. This reserve was established under the provisions of Public Act 75 of 2010. At September 30, 2011, and 2010, the balance in this reserve was \$6.3 million and \$16.4 thousand, respectively.

<u>Reserve for Member Investment Plan</u> - This reserve represents MIP contributions and interest less refunds and transfers to the Reserve for Retired Benefit Payments. At September 30, 2011, and 2010, the balance in this reserve was \$4.3 billion and \$4.2 billion, respectively.

Reserve for Employer Contributions – This reserve represents all reporting unit contributions, except payments for health benefits. Interest from the Reserve for Undistributed Investment Income reserve is credited annually. Amounts are transferred annually to the Reserve for Retired Benefit Payments to bring the balance of that reserve into balance with the actuarial present value of retirement allowances. At September 30, 2011, and 2010, the balance in this reserve was (\$25.9) billion and (\$20.6) billion, respectively.

### **Notes to Basic Financial Statements (continued)**

Reserve for Pension Plus Employer Contributions – This reserve represents all reporting unit contributions for Pension Plus members, except payments for health benefits. Interest from the Reserve for Undistributed Investment Income reserve is credited annually at a rate of 7%. Amounts are transferred annually to the Reserve for Retired Pension Plus Benefit Payments to bring the balance of that reserve into balance with the actuarial present value of retirement allowances. This reserve was established under the provisions of Public Act 75 of 2010. At September 30, 2011, and 2010, the balance in this reserve was \$3.6 million and \$151.0 thousand, respectively.

Reserve for Retired Benefit Payments - This reserve represents payments of future retirement benefits to current retirees. At retirement, a member's accumulated contributions plus interest are transferred into this reserve. Monthly benefits, which are paid to the retiree, reduce this reserve. At the end of each fiscal year, an amount, determined by an annual actuarial valuation, is transferred from the Reserve for Employer Contributions to bring the balance of this reserve into balance with the actuarial present value of retirement allowances. At September 30, 2011, and 2010, the balance in this reserve was \$38.7 billion and \$33.2 billion, respectively.

Reserve for Retired Pension Plus Benefit Payments - This reserve represents payments of future retirement benefits to current Pension Plus retirees. At retirement, a member's accumulated contributions plus interest are transferred into this reserve. Monthly benefits, which are paid to the retiree, reduce this reserve. At the end of each fiscal year, an amount, determined by an annual actuarial valuation, is transferred from the Reserve for Pension Plus Employer Contributions to bring the balance of this reserve into balance with the actuarial present value of retirement allowances. This reserve was established under the provisions of Public Act 75 of 2010. Currently, there are no participants qualified to retire under this program. At September, 30, 2011, the balance in this reserve was \$0.

Reserve for Undistributed Investment Income – This reserve represents all investment earnings. Interest is transferred annually to the other reserves. Administrative expenses of the System are paid from the Reserve for Administrative Expenses, which is credited with amounts from the Reserve for Undistributed Investment Income to cover the expenses. For ease of reporting and understanding, the two reserves are presented as one reserve in the supporting schedules. Public Act 143 of 1997 established a stabilization subaccount within the Reserve for Undistributed Investment Income to which any over funding is credited. As of September 30, 2011, the balance in the subaccount was zero. At September 30, 2011, and 2010, the balance in this reserve was \$16.1 billion and \$17.5 billion, respectively.

Reserve for Health (OPEB) Benefits - This reserve represents employee and employer contributions for retirees' health, dental and vision benefits. This reserve includes revenue from the federal government for early retiree reinsurance payment (ERRP) and retiree drug subsidy payment (RDS) pursuant to the provisions of Medicare Part D. In addition to member contributions representing 3% of the member's compensation, the required employer contribution is based on pay-as-you-go funding. It represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and amortize any unfunded actuarial liability (or funding excess) over a period not to exceed thirty years. However, the actual contributions have been less than the annual required contributions (the ARC). Interest is allocated based on the beginning balance of the reserve. Health, dental and vision benefits are paid from this reserve. The System pays 90% of the monthly premium, membership, or subscription fee for dental, vision and hearing benefits. At September 30, 2011, and 2010, the balance in this reserve was \$1,452.3 million and \$999.3 million, respectively.

### Reporting Entity

The System is a pension and other employee benefit trust fund of the State. As such, the System is considered part of the State and is included in the State's Comprehensive Annual Financial Report as a pension and other employee benefit trust fund. The System and its Board are not financially accountable for any other entities or other organizations. Accordingly, the System is the only entity included in this financial report.

### **Notes to Basic Financial Statements (continued)**

### Benefit Protection

Public Act 100 of 2002 was passed by the Michigan Legislature to protect pension benefits of public employees from alienation (being transferred). Alienation is attachment, garnishment, levy, execution, bankruptcy or other legal process except for divorce orders or eligible domestic relation orders. The statutes governing the System contained an "antialienation" clause to provide for this protection; however, many smaller public pension systems did not have the benefit of this protection. Therefore, Public Act 100 of 2002 was passed to establish legal protection of pension assets that encompasses all public employees.

### Fair Value of Investments

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

### **Investment Income**

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

### Costs of Administering the System

Each year a restricted general fund appropriation is requested to fund the on-going business operations of the System. These administrative costs are ultimately funded by the System through the regular transfer of funds from the System to the State's general fund based on either a direct cost or allocation basis depending on the nature of the expense. Costs of administering the System are financed by undistributed investment income of the System.

### Property and Equipment

Office space is leased from the State on a year to year basis. Office equipment is capitalized if the value exceeds \$5,000. These assets are recorded at cost and are reported net of depreciation in the Statement of Pension Plan and Other Postemployment Benefit Plan Net Assets. Such assets are depreciated on a straight-line basis over 10 years. As of September 30, 1998, all capitalized equipment was fully depreciated. No additional equipment has been capitalized for the System since that date.

### **Notes to Basic Financial Statements (continued)**

### **Related Party Transactions**

<u>Leases and Services</u> - The System leases operating space and purchases certain administrative, data processing, legal and investment services from the State. The space and services are not otherwise available by competitive bid. The schedule below summarizes costs incurred by the System for such services.

|                       | 2011       | 2010         |
|-----------------------|------------|--------------|
| Building Rentals      | \$ 898,134 | \$ 1,088,552 |
| Technological Support | 7,683,860  | 9,481,715    |
| Attorney General      | 333,757    | 305,632      |
| Investment Services   | 9,672,298  | 10,077,528   |
| Personnel Services    | 9,281,670  | 10,378,365   |

<u>Cash</u> - On September 30, 2011, and 2010, the System had \$121.1 million and \$53.1 million, respectively, in a common cash investment pool maintained for various State operating funds. The participating funds in the common cash pool earn interest at various rates depending upon prevailing short-term interest rates. Earnings from these activities amounted to \$51 thousand and \$88 thousand for the years ended September 30, 2011, and 2010, respectively.

### **NOTE 3 - CONTRIBUTIONS AND FUNDED STATUS**

#### **Contributions**

The majority of the members currently participate on a contributory basis. Reporting units are required by Public Act 300 of 1980, as amended, to contribute amounts necessary to finance the coverage of members and retiree OPEB. Contribution provisions are specified by State statute and may be amended only by action of the State Legislature.

Employer contributions to the System are determined on an actuarial basis using the entry age normal actuarial cost method. Under this method, the actuarial present value of the projected benefits of each individual included in the actuarial valuation is allocated on a level basis over the service of the individual between entry age and assumed exit age. The portion of this cost allocated to the current valuation year is called the normal cost. The remainder is called the actuarial accrued liability. Normal cost is funded on a current basis. For retirement and OPEB benefits, the unfunded(overfunded) actuarial accrued liability will be amortized over a 25 year period for the 2011 fiscal year and is amortized over a 26 year period for the 2010 fiscal year.

Actual employer contributions for retirement benefits were \$1,156.1 million and \$1,001.3 million for fiscal years 2011 and 2010, respectively, representing 11.3% of annual covered payroll for the year ended September 30, 2010. The fiscal year 2011 annual covered payroll is not yet available. Required employer contributions based on previous year actuarial valuations for pensions included:

- 1. \$364.8 million and \$422.3 million for fiscal years 2011 and 2010, respectively, for the normal cost of pensions representing 4.1% and 4.3% (before reconciliation) of annual covered payroll for fiscal years 2010 and 2009, respectively.
- 2. \$1,306.3 million and \$759.8 million for fiscal years 2011 and 2010, respectively, for amortization of unfunded actuarial accrued liability representing 14.8% and 7.7% (before reconciliation) of annual covered payroll for fiscal years 2010 and 2009, respectively.

### **Notes to Basic Financial Statements (continued)**

Actual employer contributions for other postemployment benefits (OPEB) were \$794.8 million and \$675.1 million for fiscal years 2011 and 2010, respectively, representing 9.0% of annual covered payroll for the year ended September 30, 2010. The fiscal year 2011 annual covered payroll is not yet available. Required employer contributions based on previous year actuarial valuations for OPEB included:

- 1. \$999.4 million and \$1,254.8 million for fiscal years 2011 and 2010, respectively, for the normal cost of OPEB representing 11.3% and 12.7% (before reconciliation) of annual covered payroll for fiscal years 2010 and 2009, respectively.
- 2. \$1,150.1 million and \$1,108.3 million for fiscal years 2011 and 2010, respectively, for amortization of unfunded actuarial accrued liability representing 13.0% and 11.2% (before reconciliation) of annual covered payroll for fiscal years 2010 and 2009, respectively.

The System is required to reconcile with actuarial requirements annually. Any funding excess or deficiency for pension benefits is smoothed over 5 years. One-fifth (20%) of the funding excess or deficiency is included in the subsequent year's contribution, and is not recognized as a payable or receivable in the accounting records.

In May 1996, the Internal Revenue Service issued a private letter ruling allowing the System's members to purchase service credit and repay refunds using tax-deferred (pre-tax) dollars. The program was implemented in fiscal year 1998, and payments began in fiscal year 1999.

The program allows members to purchase service credit and repay refunds on a tax-deferred basis. Members sign an irrevocable agreement that identifies the contract duration, monthly payment, total contract amount and years of service credit being purchased. The duration of the contract can range from 1 to 20 years. The amounts are withheld from members' paychecks and are treated as employer pick-up contributions pursuant to Internal Revenue Code Section 414(h). At September 30, 2011, and 2010, there were 27,485 and 31,916 agreements, respectively. The agreements were discounted using the assumed actuarial rate of return of 8% for September 30, 2011, and 2010. The average remaining length of a contract was approximately 6.9 years and 7.1 years for 2011 and 2010. The short-term receivable was \$47.5 million and the discounted long-term receivable was \$150.8 million at September 30, 2011. At September 30, 2010, the short-term receivable was \$55.6 million and the discounted long-term receivable was \$183.3 million.

#### Funded Status

Participating employers are required to contribute at an actuarially determined rate for both pension benefits and OPEB. For fiscal year 2010, the actuarial accrued liability (AAL) for pension benefits was \$60.9 billion, and the actuarial value of assets was \$43.3 billion, resulting in an unfunded actuarial accrued liability (UAAL) of \$17.6 billion and a funded ratio of 71.1%. The covered payroll (annual payroll of active employees covered by the plan) was \$8.8 billion, and the ratio of the UAAL to the covered payroll was 199.4%.

For fiscal year 2010, the actuarial accrued liability (AAL) for OPEB benefits was \$28.6 billion, and the actuarial value of assets was \$999.3 million, resulting in an unfunded actuarial accrued liability (UAAL) of \$27.6 billion and a funded ratio of 3.5%. The covered payroll (annual payroll of active employees covered by the plan) was \$8.8 billion, and the ratio of the UAAL to the covered payroll was 312.4%.

### **Notes to Basic Financial Statements (continued)**

### **Actuarial Valuations and Assumptions**

Actuarial valuations for both the pension and OPEB plans involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contributions (ARC) are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The schedule of funding progress, presented as required supplementary information following the notes to the financial statements, presents multi-year trend information about whether the actuarial value of plan assets for both pension and OPEB plans is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

The accompanying schedules of employer contributions present trend information about the amounts contributed to the plan by employers in comparison to the ARC, an amount that is actuarially determined in accordance with the parameters of GASB Statement No. 25 for pension contributions and GASB Statement No. 43 for OPEB contributions.

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

### **Notes to Basic Financial Statements (continued)**

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

### **Summary of Actuarial Assumptions**

Valuation Date 9/30/2010
Actuarial Cost Method Entry Age, Normal
Amortization Method - Pension Level Percent of Payroll, Closed
Amortization Method - OPEB Level Percent of Payroll, Closed

Remaining Amortization Period - Pension 26 years\*
Remaining Amortization Period - OPEB 26 years

Asset Valuation Method - Pension 5-Year Smoothed Market
Asset Valuation Method - OPEB Market

**Actuarial Assumptions:** 

Wage Inflation Rate 3.5%

Investment Rate of Return - Pension

MIP and Basic Plans
 Pension Plus Plan
 Investment Rate of Return - OPEB
 Projected Salary Increases
 3.5 - 15.9%

Cost-of-Living Pension Adjustments 3% Annual Non-Compounded for MIP Members Healthcare Cost Trend Rate 8.5% Year 1 graded to 3.5% Year 11

Other Assumptions OPEB only:

Survivor Coverage

Opt Out Assumption 21% of eligible participants hired before 7/1/2008

and 30% of those hired after 6/30/2008 are assumed to opt out of the retiree health plan 80% of male retirees and 67% of female retirees are assumed to have coverage continuing after the

retiree's death

Coverage Election at Retirement 75% of male and 60% of female future retirees are assumed to elect coverage for 1 or more dependents

\*Based on the provisions of GASB Statement Nos. 25, 43 and 45 when the actuarial accrued liability for a defined benefit pension plan is underfunded or overfunded, the difference should be amortized over a period not to exceed thirty years for the fiscal periods beginning on or after June 15, 2006.

### **NOTE 4 - INVESTMENTS**

#### **Investment Authority**

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

Under Public Act 314 of 1965, as amended, the State Treasurer may invest up to 5% of the System's assets in small businesses having more than one-half of assets or employees in Michigan as described in section 20(a) of the Act and up to 20% of the System's assets in investments not otherwise qualified under the Act as described in section 20(d).

### **Notes to Basic Financial Statements (continued)**

Alternative investments include limited partnerships and distributions from these partnerships in the form of bonds, preferred stock, common stock and direct investments.

#### Derivatives

The State Treasurer employs the use of derivatives in the investment of the pension and other employee benefit trust funds (the trust funds).

Derivatives are used in managing the trust fund portfolios, but uses do not include speculation or leverage of investments. Less than 12% of the total trust funds' portfolio has been invested from time to time in future contracts, structured notes, option and forward contracts. State investment statutes limit total derivative exposure to 15% of a fund's total asset value, and restrict uses to replication of returns and hedging of assets. Swap agreements represent the largest category of derivatives used, and they represented 4.2% of market value of total pooled assets on September 30, 2011 and 6.2% of market value of total pooled assets on September 30, 2010. Structured notes represented 0.7% of market value of total pooled assets on September 30, 2011 and 0.3% of market value of total pooled assets on September 30, 2010. Future contracts represented 0.0% of market value of total pooled assets on September 30, 2011 and 2010. Option contracts represented 0.0% of market value of total pooled assets on September 30, 2011, and 2010. Forward contracts represented 0.0% of market value of total pooled assets on September 30, 2011. The derivative fair values are reported on the Statements of Pension Plan and Other Postemployment Benefit Plan Net Assets as of September 30, 2011, and 2010 statements, in their respective investment pools market value. Derivative net appreciation and depreciation are reported on the Statement of Changes in Pension Plan and Other Postemployment Benefit Plan Net Assets for fiscal years ended September 30, 2011 and 2010 statements, under "Investment income (loss)", in "Net appreciation (depreciation) in fair value of investments". Swap interest, payments, and dividends are reported under "Investment Income (loss)", in "Interest, Dividends, and other"

To diversify the trust funds' portfolio, the State Treasurer has entered into international swap agreements with investment grade counterparties, which are tied to stock market indices in twenty-two foreign countries. In May 2011, to provide downside protection and enhance cash returns in equity investments, swap agreements tied to domestic stock indices were added.

International Investments' swap equity agreement notional amounts at September 30, 2011, and 2010, were \$1,423.5 million and \$2,371.6 million, respectively. Approximately one quarter of the notional amount tied to foreign stock market indices is hedged against foreign currency fluctuations. The swap agreements provide that the System will pay quarterly over the term of the swap agreements, interest indexed to the three month London Inter Bank Offer Rate (LIBOR), adjusted for an interest rate spread, on the notional amount stated in the agreements. International equity swap agreement maturity dates range from October 2011 to July 2012. The U.S. Domestic LIBOR based floating rate notes and other investments earning short-term interest are held to correspond with the notional amount of the international swap agreements. The value of the international synthetic equity structures is a combination of the value of the swap agreements and the value of the notes and short-term investments. The book value represents the cost of the notes and short-term investments and the change in the value of the underlying indices from the inception of the swap agreements. The current value \$1,556.6 million is used as a representation of the fair value based on the intention to hold all swap agreements until maturity. At the maturity of the swap agreements, the trust funds will either receive the increase in the value of the equity indices from the level at the inception of the agreements, or pay the decrease in the value of the indices. The combined swap structure generally realizes gains and losses on a rolling multi-year basis.

For fiscal years ending September 30, 2011, and 2010, international equity investment programs involving swaps, incurred an investment income loss of (\$114.5) million and an investment income gain of \$164.2 million, respectively.

International swaps appreciation/(depreciation) for fiscal years ending September 30,2011, and 2010, was (\$129.2) million and \$113.8 million, respectively, primarily reflects fluctuations in currency exchange rates and increases in bond market values.

### **Notes to Basic Financial Statements (continued)**

In May 2011, domestic equity swaps were added to the trust funds' portfolio for the Domestic Equity Pools. Equity Investments' domestic swap agreements notional amounts at September 30, 2011 were 638.6 million. Domestic equity swap agreement maturity dates range from October 2011 to July 2014. The swap agreements provide that the System will pay interest quarterly or annually over the term of the swap agreements, interest indexed to the LIBOR, adjusted for an interest rate spread, on the notional amount stated in the agreements. Domestic equity swaps value is a combination of the value of the swap agreements and the value of short-term investments. Book value represents the cost of short-term investments. Current value represents the fair value of the short-term investments and the change in the value of the underlying indices from the inception of the swap agreements. The current value \$17.4 million is used as a representation of the fair value based on the intention to hold all swap agreements until maturity. For fiscal year ending September 30, 2011, the domestic equity investment swap program incurred an investment income loss of (\$22.5) million.

Domestic equity swaps' appreciation/(depreciation) of (\$22.4) million for the fiscal year ending September 30, 2011, primarily reflects the net changes in the domestic indices and increases in short-term investments.

The maximum loss due to counterparty credit risk is the amount that would be incurred if the counterparties to the derivative instrument failed to perform according to the terms of the contract, without respect to any collateral or other security, or netting arrangement. Counterparty credit risk will always be significantly less than the swap agreement notional totals. On September 30, 2011, and 2010, the maximum amount of counterparty credit risk for international equity swaps was \$178.8 million and \$284.4 million, respectively. Domestic equity swaps counterparty credit risk at September 30, 2011, was \$18.5 million.

The respective September 30, 2011, and 2010, swap values are as follows:

|                     |                                 | Notional Value | Current Value |
|---------------------|---------------------------------|----------------|---------------|
| International Swaps | 9/30/2011 (dollars in millions) | \$ 1,423.5     | \$ 1,556.6    |
| International Swaps | 9/30/2010 (dollars in millions) | 2,371.6        | 2,341.9       |
| Domestic Swaps      | 9/30/2011 (dollars in millions) | 638.6          | 17.4          |

In July 2011, an international currency forward investment agreement was added to the trust funds' portfolio for the Absolute Return Pools. The international currency forward had a notional value of \$8.0 million. Fair value at September 30, 2011 was \$0.3 million. This currency forward agreement will mature in July 2012. The value of this investment is the change in the forward rate. For fiscal year ending September 30, 2011, the swap currency forward had appreciation/(depreciation) of \$0.3 million. Investment income for fiscal year ending September 30, 2011 was \$0.3 million. Counterparty credit risk for the international currency forward is \$0.3 million.

To get enhanced passive exposure to the Dow Jones UBS Commodity Total Return Index, the State Treasurer purchased structured notes from investment grade counterparties for the Absolute Return Pools. These notes are fully collateralized and pay cash rates on the underlying collateral, as well as, providing the enhanced index return. Similar to a swap agreement with prices changing with the underlying index fluctuations, the notes differ due to their daily put option which allows the structure to end and settle before its final maturity in November 2016. For the fiscal years ending September 30, 2011 and 2010, the notional value was \$271.3 million and \$115.5 million, respectively. The fair value of the structured notes for the fiscal years ending September 30, 2011 and 2010 was \$262.5 million and \$119.7 million, respectively. The structured notes' counterparty credit risk for fiscal year ending September 30, 2011, and 2010, the structured notes had appreciation/(depreciation) of (\$12.9) million and \$2.8 million, respectively. Investment income for fiscal years ending September 30, 2011, and 2010, was (\$12.9) million and \$2.8 million, respectively.

#### **Notes to Basic Financial Statements (continued)**

To enhance management flexibility, the State Treasurer traded U. S. Treasury bond future contracts for the Fixed Income Pools. The U. S. Treasury bond future contracts were used to manage duration and yield curve exposure. U.S. Treasury bond future contracts' notional values at September 30, 2011 and 2010, were \$9.0 million and \$8.2 million, respectively. For the fiscal years ending September 30, 2011, and 2010, the fair values were \$26.6 thousand and \$17.6 thousand, respectively. The net investment income for fiscal years ending September 30, 2011, and 2010, was \$0.2 million and \$0.2 million, respectively. For fiscal years ending September 30, 2011, and 2010, appreciation/(depreciation) was \$0.2 million and \$0.2 million, respectively.

To provide downside protection and enhance current income, the State Treasurer traded covered equity options on single securities for the Absolute Return pools. Put options are used to protect against large negative moves in single stocks, as well as to express interest in a security that is trading well below its intrinsic value. Call options have been used to achieve current income on single equity securities that are trading near their intrinsic value. Equity options' notional values on September 30, 2011, and 2010, were \$0.7 million and \$0, respectively. For fiscal years ended September 30, 2011, and 2010, the fair values of the equity options were (\$72.9) thousand and \$0, respectively. The investment income on options for fiscal years ending September 30, 2011, and 2010, was \$0.1 million and \$2.0 million, respectively. Appreciation/(depreciation) for fiscal years ending September 30, 2011, and 2010, was \$0.1 million and \$2.0 million, respectively.

#### Securities Lending

State statutes allow the System to participate in securities lending transactions, and the System has, by way of an Agreement, authorized Credit Suisse, the agent bank, to lend the System's securities to broker-dealers and banks pursuant to a form of loan agreement.

During the fiscal years, the agent bank lent, at the direction of the State Treasurer, the System's securities and received cash (United States) as collateral. The types of securities lent were equity, and fixed income, which includes government and corporate bonds and notes. Borrowers were required to deliver collateral for each loan equal to (i) in case of loaned securities denominated in United States dollars or whose primary trading market was located in the United States or sovereign debt issued by foreign governments, 102% of the fair value of the loaned securities; and (ii) in the case of loaned securities not denominated in United States dollars or whose primary trading market was not located in the United States, 105% of the fair value of the loaned securities.

The agent bank agreed to indemnify the System by purchasing replacement securities, or returning cash collateral in the event borrower failed to return the loaned security or pay distributions thereon, due to the borrower's insolvency.

Under Master Securities Lending Agreements between the System and each borrower, the System and the borrowers have the right to terminate all securities lending transactions on demand. The cash collateral received on each loan was invested in assets held in a collateral account dedicated to the System. As of September 30, 2011 and 2010, such assets had an average weighted maturity to next reset of 3.3 years and 3.8 years respectively and an average weighted maturity of 10.8 years and 12.6 years respectively. Because the loans are terminable at will, their duration did not generally match the duration of the investments made with cash collateral. On September 30, 2011 and 2010, the System had no credit risk exposure to borrowers. The cash received for securities on loan for the System as of September 30, 2011 and 2010, was \$5,287,823,375 and \$5,177,096,903 respectively. The fair market value of assets held in the dedicated collateral account at the custodian for the System as of September 30, 2011 and 2010, was \$4,243,653,251 and \$4,032,944,373 respectively. The carrying amount, which is the fair market value, of securities on loan for the System as of September 30, 2011 and 2010, was \$5,164,407,340 and \$5,052,573,776 respectively.

Gross income, including capital gains and losses, from security lending for fiscal years ended September 30, 2011 and 2010 with Credit Suisse was \$74,453,294 and \$90,922,462 respectively. Expenses associated with this income were the borrower's rebate of \$2,958,394 and \$8,014,960 and fees paid to the agent bank of \$13,472,406 and \$15,432,509 respectively.

### **Notes to Basic Financial Statements (continued)**

#### Risk

In accordance with GASB Statement No. 40, investments require certain disclosures regarding policies and practices and the risks associated with them. The credit risk, (including custodial credit risk and concentration of credit risk), the interest rate risk, and the foreign currency risk are discussed in the following paragraphs. Amounts represent the pro rata share of the underlying investments as required by GASB Statement No. 40. These are held in internal investment pools and reported as such in the financial statements.

Credit Risk - Credit risk is the risk that an issuer will not fulfill its obligations.

- Short-Term Fixed Income Investments Prime commercial paper investments must be rated A-1 or P-1 at the time of purchase as rated by the two major rating services Standard and Poor's Corporation (S&P) and Moody's Investor Service (Moody's), respectively. Borrowers must have at least \$400.0 million in commercial paper outstanding, and the State Treasurer may not invest in more than 10% of the borrower's outstanding debt. The investments are further limited to \$200.0 million in any borrower, unless the borrower has an A-1+ rating in which case the investment is not to exceed \$300.0 million.
- Long-Term Fixed Income Investments These investments must be investment grade or better at the time of purchase unless specific requirements are met as defined in Public Act 314 of 1965, as amended, and the State Treasurer's investment policy. Law defines investment grade as investments in the top four major grades, rated by two national rating services, S&P (AAA, AA, A, BBB) and Moody's (Aaa, Aa, A, Baa). At September 30, 2011 and 2010, the System was in compliance with the policy in all material aspects.

### **Notes to Basic Financial Statements (continued)**

Rated Debt Investments (in thousands) As of September 30, 2011, and 2010

|                               |               |     | 2011          |         |               |     | 2010          |         |
|-------------------------------|---------------|-----|---------------|---------|---------------|-----|---------------|---------|
| Investment Type               | Fair Value    | S&P | Fair Value    | Moody's | Fair Value    | S&P | Fair Value    | Moody's |
| Short Term                    | \$ 2,051,212  | A-1 | \$ 2,010,553  | P-1     | \$ 1,103,960  | A-1 | \$ 1,085,232  | P-1     |
|                               | -             | A-2 | 40,659        | P-2     | -             | A-2 | 18,728        | P-2     |
| Government Securities         |               |     |               |         |               |     |               |         |
| U.S. Agencies - Sponsored     | -             | AAA | 405,873       | Aaa     | 478,954       | AAA | 478,954       | Aaa     |
|                               | 405,873       | AA  | -             | Aa      | -             | AA  | -             | Aa      |
| Corporate Bonds & Notes       |               |     |               |         |               |     |               |         |
| •                             | 69,053        | AAA | 93,236        | Aaa     | 106,961       | AAA | 108,174       | Aaa     |
|                               | 679,806       | AA  | 547,187       | Aa      | 750,160       | AA  | 575,460       | Aa      |
|                               | 1,951,911     | A   | 2,022,401     | A       | 2,000,692     | A   | 2,126,434     | A       |
|                               | 1,017,209     | BBB | 983,243       | Baa     | 1,155,352     | BBB | 1,152,497     | Baa     |
|                               | 113,936       | BB  | 98,816        | Ba      | 76,549        | BB  | 50,826        | Ba      |
|                               | 15,817        | В   | 21,388        | В       | 16,030        | В   | 13,704        | В       |
|                               | 8,314         | CCC | 7,188         | Caa     | 6,610         | CCC | 10,429        | Caa     |
|                               | 188           | CC  | 835           | Ca      | 2             | CC  | 1,311         | Ca      |
|                               | _             | C   | 10            | C       | _             | C   | 17            | C       |
|                               | 317           | D   | _             | D       | 649           | D   | -             | D       |
|                               | 373,645       | NR  | 455,891       | NR      | 206,641       | NR  | 280,793       | NR      |
| International *               |               |     |               |         |               |     |               |         |
|                               | -             | AAA |               | Aaa     | -             | AAA | -             | Aaa     |
|                               | 639,684       | AA  | 851,963       | Aa      | 825,034       | AA  | 1,116,570     | Aa      |
|                               | 512,512       | A   | 345,452       | A       | 1,034,325     | A   | 820,689       | A       |
|                               |               | BBB | 143,817       | Baa     | 117,048       | BBB | 265,897       | Baa     |
|                               | 74,124        | BB  | -             | Ba      | 148,849       | BB  | -             | Ba      |
|                               | 267,054       | NR  | 152,142       | NR      | 77,900        | NR  | -             | NR      |
| Securities Lending Collateral |               |     |               |         |               |     |               |         |
| Seeds ares Beinding connectus | 408,335       | A-1 | 408,335       | P-1     | 35,147        | A-1 | 35,147        | P-1     |
|                               | 792,583       | AAA | 768,748       | Aaa     | 1,123,322     | AAA | 1,084,510     | Aaa     |
|                               | 487,841       | AA  | 1,888,618     | Aa      | 511,130       | AA  | 1,726,888     | Aa      |
|                               | 281,904       | A   | 258,453       | A       | 479,275       | A   | 605,723       | A       |
|                               | 1,518,602     | BBB | 141,255       | Baa     | 1,419,982     | BBB | 31,685        | Baa     |
|                               | -,,           | BB  | 23,856        | Ba      | -,,           | BB  | 22,087        | Ba      |
|                               | 11,152        | В   | 11,152        | В       | 199,357       | В   | 8,606         | В       |
|                               | 220,274       | CCC | 171,161       | Caa     | 52,026        | CCC | 273,613       | Caa     |
|                               | ,             | CC  | 49,113        | Ca      | ,             | cc  | 31,981        | Ca      |
|                               | 508,100       | NR  | 508,100       | NR      | 197,923       | NR  | 197,923       | NR      |
| Mutual Funds                  | 4,229         | A   | -             | A       | _             | A   | -             | A       |
|                               |               | NR  | 4,229         | NR      |               | NR  |               | NR      |
| Total                         | \$ 12,413,674 |     | \$ 12,413,674 |         | \$ 12,123,878 |     | \$ 12,123,878 |         |
|                               |               |     |               |         |               |     |               |         |

NR - not rated

<u>Custodial Credit Risk</u> - Custodial credit risk for investments is the risk that, in the event of a failure of the counterparty, the State will not be able to recover the value of the investment or collateral securities that are in the possession of an outside party.

Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the government and are held by either:

- The counterparty or
- The counterparty's trust department or agent but not in the government name.

The State Treasurer does not have a policy for custodial credit risk. However, the State's custodial bank had a credit rating of A+ at September 30, 2011. As of September 30, 2011 and September 30, 2010, no securities were exposed to custodial credit risk.

<sup>\*</sup> International Investment types consist of domestic floating rate note used as part of a Swap strategy.

### **Notes to Basic Financial Statements (continued)**

<u>Concentration of Credit Risk</u> - Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investment in a single issuer.

Other than obligations issued, assumed or guaranteed by the United States, its agencies or United States government sponsored enterprises, the System is prohibited by Public Act 314 of 1965, as amended, from investing in more than 5% of the outstanding obligations of any one issuer or investing more than 5% of a System's assets in the obligations of any one issuer.

At September 30, 2011 and 2010, there were no investments in any single issuer that accounted for more than 5% of the System's assets nor were there any investments totaling more than 5% of the obligations of any one issuer, other than U.S. Government Securities as described above.

<u>Interest Rate Risk - Fixed Income Investments</u> - Interest rate risk is the risk that changes in interest rates of debt investments will adversely affect the fair value of an investment.

The State Treasurer's policy states that cash equivalents are invested in short-term fixed income securities with an average weighted maturity of less than one year to provide liquidity and safety of principal from capital market and default risk. At September 30, 2011 and 2010, the fair value of the System's prime commercial paper was \$2,051.2 million and \$1,103.9 million with the weighted average maturity of 13 days and 8 days, respectively.

The State Treasurer does not have a policy regarding interest rate risk for long-term debt investments. However, the trust funds are invested with a long-term strategy. The goal is to balance higher returns while accepting minimum risk for the return. Analyzing the yield curve on individual securities as compared to U.S. Treasuries determines, in part, what is an acceptable risk for the return. Therefore, market conditions such as lower interest rates result in shorter duration and higher interest rates result in longer duration.

#### Debt Securities (in thousands) As of September 30, 2011, and 2010

|                            | 2011 |           |                                   | 2010 |           |                                   |  |
|----------------------------|------|-----------|-----------------------------------|------|-----------|-----------------------------------|--|
|                            | F    | air Value | Effective<br>Duration in<br>Years | F    | air Value | Effective<br>Duration in<br>Years |  |
| Government                 |      |           |                                   |      |           |                                   |  |
| U. S. Treasury             | \$   | 117,506   | 8.3                               | \$   | 179,288   | 5.6                               |  |
| U. S. Agencies - Backed    |      | 932,026   | 3.9                               |      | 1,136,365 | 4.4                               |  |
| U. S. Agencies - Sponsored |      | 405,873   | 3.0                               |      | 478,954   | 2.5                               |  |
| Corporate                  |      | 4,230,195 | 4.3                               |      | 4,319,645 | 4.7                               |  |
| International*             |      |           |                                   |      |           |                                   |  |
| Corporate                  |      | 1,493,374 | 0.2                               |      | 2,203,156 | 0.2                               |  |
| Mutual Funds               |      | 4,229     | 4.4                               |      |           |                                   |  |
| Total                      | \$   | 7,183,203 |                                   | \$   | 8,317,408 |                                   |  |

Debt securities are exclusive of securities lending collateral.

<sup>\*</sup>International contains Corporate Debt Securities as a part of their derivative strategies.

The interest rates reset on a quarterly basis for these securities.

### **Notes to Basic Financial Statements (continued)**

<u>Foreign Currency Risk</u> - Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or deposit.

The System invests in various securities denominated in foreign currencies. These investments are limited to 20% of the total assets of the System with an additional limit of 5% of the outstanding foreign securities of any single issuer. No investment is allowed in a country that has been identified by the United States State Department as engaging in or sponsoring terrorism. These limits are set forth in Public Act 314 of 1965, as amended. The types of foreign investments include equities, fixed income, mutual funds, real estate, and limited partnerships. At September 30, 2011, and 2010, the total amount of foreign investment subject to foreign currency risk was \$4,620.0 million and \$4,059 million which amounted to 12.4% and 10.8% of total investments (exclusive of securities lending collateral) of the System, respectively.

#### Foreign Currency Risk (in thousands) As of September 30, 2011

|                |                |          |    |             |     |           |     |            |    | Intern      | ational |            |
|----------------|----------------|----------|----|-------------|-----|-----------|-----|------------|----|-------------|---------|------------|
|                |                |          | A  | lt. Invest. | ]   | Equity    | Re  | al Estate  |    | Equities    | De      | rivatives  |
|                |                |          | Ma | rket Value  | Mar | ket Value | Mai | rket Value |    | arket Value | Mar     | rket Value |
| Region         | Country        | Currency |    | in U.S. \$  | iı  | nU.S.\$   |     | n U.S. \$  |    | in U.S. \$  |         | U.S. \$*   |
|                | Journal        |          |    |             |     |           |     |            |    |             |         | -          |
| <b>AMERICA</b> |                |          |    |             |     |           |     |            |    |             |         |            |
|                | Canada         | Dollar   |    |             |     |           |     |            |    |             | \$      | 4,571      |
|                | Mexico         | Peso     |    |             | \$  | 1,534     |     |            |    |             |         |            |
| <b>EUROPE</b>  |                |          |    |             |     |           |     |            |    |             |         |            |
|                | European Union | Euro     | \$ | 898,489     |     | 5,968     |     |            | \$ | 7,792       |         | (7,305)    |
|                | Switzerland    | Franc    |    |             |     | 68,889    |     |            |    |             |         | 14,397     |
|                | Sweden         | Krona    |    |             |     |           |     |            |    | 6,476       |         | 11,178     |
|                | Denmark        | Krone    |    |             |     |           |     |            |    | 1,191       |         | 916        |
|                | Norway         | Krone    |    |             |     |           |     |            |    |             |         | 3,769      |
|                | U.K.           | Sterling |    | 11,638      |     | 74,674    |     |            |    | 2,551       |         | 16,866     |
| PACIFIC        |                |          |    |             |     |           |     |            |    |             |         |            |
|                | Australia      | Dollar   |    |             |     |           |     |            |    |             |         | 13,851     |
|                | China          | Renminbi |    |             |     | 552       |     |            |    |             |         |            |
|                | Hong Kong      | Dollar   |    |             |     | 6,465     |     |            |    |             |         | 110        |
|                | Japan          | Yen      |    | 667         |     |           |     |            |    | 293         |         | 30,006     |
|                | New Zealand    | Dollar   |    |             |     |           |     |            |    |             |         | 2,773      |
|                | Singapore      | Dollar   |    |             |     | 7,461     |     |            |    | 7,316       |         | (1,304)    |
|                | South Korea    | Won      |    |             |     |           |     |            |    | 5,466       |         | 6.018      |
| MIDDLE EAST    |                |          |    |             |     |           |     |            |    | .,          |         | -,-        |
|                | Israel         | Shekel   |    |             |     | 14,089    |     |            |    |             |         |            |
| AFRICA         |                |          |    |             |     |           |     |            |    |             |         |            |
|                | South Africa   | Rand     |    |             |     | 247       |     |            |    |             |         |            |
| VARIOUS        |                |          |    |             |     |           | \$  | 699,629    |    | 2,702,814   |         |            |
|                | Total          |          | \$ | 910,794     | \$  | 179,879   | \$  | 699,629    | \$ | 2,733,899   | s       | 95,846     |
|                | 1000           |          | Ψ  | 710,774     | Ψ   | 117,017   | Ψ   | 077,027    | Ψ  | 4,133,077   | Ψ       | 75,040     |

<sup>\*</sup> International derivatives' market value exposure to foreign currency risk is the net amount of unrealized gains and unrealized losses. Maturity dates on these investments range from October 2011 through July 2012 with an average maturity of .3 years.

## **Notes to Basic Financial Statements (continued)**

Foreign Currency Risk (in thousands) As of September 30, 2010

|                 |                |            |    |            |     |           |     |            |    | Intern      | ational |            |
|-----------------|----------------|------------|----|------------|-----|-----------|-----|------------|----|-------------|---------|------------|
|                 |                |            | Al | t. Invest. | 1   | Equity    | Re  | al Estate  |    | Equities    | De      | rivatives  |
|                 |                |            | Ma | rket Value | Mar | ket Value | Mai | rket Value | Ma | arket Value | Mai     | rket Value |
| Region          | Country        | Currency   | i  | n U.S. \$  | in  | U.S. \$   | i   | n U.S. \$  |    | in U.S. \$  | in      | U.S. \$*   |
| <b>AMERICA</b>  |                |            |    |            |     |           |     |            |    |             |         |            |
|                 | Brazil         | Real       |    |            | \$  | 1,819     |     |            |    |             |         |            |
|                 | Canada         | Dollar     |    |            |     |           |     |            |    |             | \$      | 5,307      |
| <b>EUROPE</b>   |                |            |    |            |     |           |     |            |    |             |         |            |
|                 | European Union | Euro       | \$ | 815,823    |     | 29,320    |     |            | \$ | 12,823      |         | (21,532)   |
|                 | Switzerland    | Franc      |    |            |     | 118,742   |     |            |    |             |         | 8,954      |
|                 | Sweden         | Krona      |    |            |     |           |     |            |    | 8,127       |         | 17,307     |
|                 | Denmark        | Krone      |    |            |     |           |     |            |    | 1,174       |         | 1,829      |
|                 | Norway         | Krone      |    |            |     |           |     |            |    |             |         | 4,573      |
|                 | U.K.           | Sterling   |    | 11,549     |     | 100,646   |     |            |    | 2,401       |         | 14,027     |
| PACIFIC PACIFIC |                |            |    |            |     |           |     |            |    |             |         |            |
|                 | Australia      | Dollar     |    |            |     |           |     |            |    |             |         | 24,698     |
|                 | China          | Renminbi   |    |            |     | 3,701     |     |            |    |             |         |            |
|                 | Hong Kong      | Dollar     |    |            |     | 6,207     |     |            |    |             |         | 6,830      |
|                 | Japan          | Yen        |    | 1,290      |     | 229       |     |            |    | 267         |         | (1,002)    |
|                 | New Zealand    | Dollar     |    |            |     |           |     |            |    |             |         | 1,640      |
|                 | Singapore      | Dollar     |    |            |     | 6,341     |     |            |    | 4,430       |         | 2,204      |
|                 | South Korea    | Won        |    |            |     |           |     |            |    | 6,252       |         | 11,539     |
| MIDDLE EAST     |                |            |    |            |     |           |     |            |    |             |         |            |
|                 | Israel         | Shekel     |    |            |     | 2,521     |     |            |    |             |         |            |
| <u>AFRICA</u>   | a 1 10:        | <b>.</b> . |    |            |     | 220       |     |            |    |             |         |            |
|                 | South Africa   | Rand       |    |            |     | 320       |     |            |    |             |         |            |
| <u>VARIOUS</u>  |                |            |    |            |     |           | \$  | 526,552    |    | 2,322,124   |         |            |
|                 | Total          |            | \$ | 828,662    | \$  | 269,846   | \$  | 526,552    | \$ | 2,357,598   | \$      | 76,374     |

<sup>\*</sup> International derivatives' market value exposure to foreign currency risk is the net amount of unrealized gains and unrealized losses. Maturity dates on these investments range from October 2010 through April 2012 with an average maturity of .8 years.

### **Notes to Basic Financial Statements (continued)**

### **NOTE 5 - ACCOUNTING CHANGES**

During fiscal year 2010, the System implemented GASB Statement No. 53, *Accounting and Financial Reporting for Derivatives Instruments*. This statement addresses the recognition, measurement, and disclosure of information regarding derivative instruments. Note 4 includes disclosure regarding derivative instruments held as investments by the System; no other types of derivative instruments were used by System during the fiscal years.

As a result of the implementation, the System made additional note disclosures regarding the investment derivative instrument; however, since the derivative instruments were held and accounted for as investments, there were no accounting changes or restatements required.

#### NOTE 6 - COMMITMENTS AND CONTINGENCIES

Under the Administrative Procedures Act, members may appeal a decision made by the Board. Once the administrative procedure has been exhausted, the decision may be appealed in Michigan's court system. Various cases that have exhausted the administrative procedures have been appealed in the court system. These cases are in the normal course of business and the System does not anticipate any material loss as a result of the contingent liabilities.

#### **Pending Litigation**

Three cases have been consolidated and are pending in the Michigan Court of Appeals (COA). Plaintiffs are contesting the 3% contribution required by MCL 38.1343e to be made by members of the Michigan Public School Employees Retirement System. The trial court entered a preliminary injunction on July 13, 2010, requiring that the Plaintiff's contributions not be used and be placed in an interest bearing escrow account. The injunction remains in place while the case is pending in the COA. The 3% contribution has an annualized fiscal year projection of \$300.0 million each year; there is no limit on the amount in controversy because the money is still being collected. Contributions totaled \$296.4 million at September 30, 2011.

## **Required Supplementary Information**

## **Schedules of Funding Progress**

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

#### **Pension Benefits (\$ in millions)**

| Valuation<br>Date<br>Sept 30 | _ | Actuarial<br>Value of<br>Assets<br>(a) | <i>I</i> | Actuarial<br>Accrued<br>Liability<br>L) Entry Age<br>(b) | (0 | Unfunded<br>Overfunded)<br>rued Liability<br>(UAAL)<br>(b-a) | Funded<br>Ratio<br>(a/b) | Covered Payroll (c) | UAAL as a % of Covered Payroll ((b-a)/c) |
|------------------------------|---|--|----------|--|----|--|--------------------------|---------------------|--|
| 2001                         |   | \$ 38,399                              | \$       | 39,774   | \$ | 1,375  | 96.5 %                   | \$ 9,264            | 14.8 %                                   |
| 2002                         |   | 38,382                                 |          | 41,957   |    | 3,575  | 91.5                     | 9,707               | 36.8                                     |
| 2003                         |   | 38,726                                 |          | 44,769   |    | 6,043  | 86.5                     | 10,044              | 60.2                                     |
| 2004                         | 1 | 38,784                                 |          | 46,317   |    | 7,533  | 83.7                     | 10,407              | 72.4                                     |
| 2005                         |   | 38,211                                 |          | 48,206   |    | 9,995  | 79.3                     | 10,206              | 97.9                                     |
| 2006                         |   | 39,893                                 |          | 49,136   |    | 9,243  | 81.2                     | 9,806               | 94.3                                     |
| 2006                         | 2 | 42,995                                 |          | 49,136   |    | 6,141  | 87.5                     | 9,806               | 62.6                                     |
| 2007                         |   | 45,335                                 |          | 51,107   |    | 5,771  | 88.7                     | 9,851               | 58.6                                     |
| 2008                         |   | 45,677                                 |          | 53,555   |    | 7,878  | 85.3                     | 9,958               | 79.1                                     |
| 2008                         | 3 | 45,677                                 |          | 54,608   |    | 8,931  | 83.6                     | 9,958               | 89.7                                     |
| 2009                         |   | 44,703                                 |          | 56,685   |    | 11,982   | 78.9                     | 9,884               | 121.2                                    |
| 2010                         |   | 43,294                                 |          | 58,543   |    | 15,250   | 74.0                     | 8,845               | 172.4                                    |
| 2010                         | 1 | 43,294                                 |          | 59,877   |    | 16,583   | 72.3                     | 8,845               | 187.5                                    |
| 2010                         | 3 | 43,294                                 |          | 60,927   |    | 17,633   | 71.1                     | 8,845               | 199.4                                    |

<sup>&</sup>lt;sup>1</sup> Revised actuarial assumptions

#### **Other Postemployment Benefits (\$ in millions)**

| Valuation<br>Date<br>Sept 30 | Va | tuarial<br>due of<br>ssets<br>(a) | A<br>L | ctuarial<br>.ccrued<br>iability<br>) Entry Age<br>(b) | (Ov<br>Accru | nfunded<br>erfunded)<br>led Liability<br>UAAL)<br>(b-a) | Funded<br>Ratio<br>(a/b) | Covered Payroll (c) | UAAL as a % of Covered Payroll ((b-a)/c) |
|------------------------------|----|-----------------------------------|--------|---|--------------|---|--------------------------|---------------------|--|
| 2006                         | \$ | 630                               | \$     | 25,387  | \$           | 24,757  | 2.5 %                    | \$ 9,806            | 252.5 %                                  |
| 2007                         |    | 776                               |        | 25,733  |              | 24,957  | 3.0                      | 9,851               | 253.3                                    |
| 2008                         |    | 832                               |        | 26,811  |              | 25,979  | 3.1                      | 9,958               | 260.9                                    |
| 2009                         |    | 713                               |        | 28,295  |              | 27,582  | 2.5                      | 9,884               | 279.1                                    |
| 2010                         |    | 999                               |        | 28,627  |              | 27,627  | 3.5                      | 8,845               | 312.4                                    |

<sup>&</sup>lt;sup>2</sup> Revised asset valuation method

<sup>&</sup>lt;sup>3</sup> Revised benefit provisions

# **Required Supplementary Information (continued)**

## **Schedules of Employer and Other Contributions**

#### **Pension Benefits**

| Fiscal Year<br>Ended<br>Sept. 30 | Annual<br>Required<br>Contribution<br>(ARC) <sup>1</sup> | Actual<br>Contribution <sup>2</sup> | Percentage<br>Contributed |
|----------------------------------|--|-------------------------------------|---------------------------|
| 2002                             | \$ 668,956,633   | \$ 603,949,327                      | 90.3 %                    |
| 2003                             | 812,891,416  | 697,906,265                         | 85.9                      |
| 2004                             | 978,035,492  | 697,647,338                         | 71.3                      |
| 2005                             | 1,023,336,739  | 774,277,778                         | 75.7                      |
| 2006                             | 1,161,843,239  | 995,932,425                         | 85.7                      |
| 2007                             | 919,560,821  | <sup>3</sup> 835,366,382            | 90.8                      |
| 2008                             | 904,409,331  | 999,374,879                         | 110.5                     |
| 2009                             | 989,150,149  | 1,000,375,355                       | 101.1                     |
| 2010                             | 1,182,164,061  | 1,001,251,673                       | 84.7                      |
| 2011                             | 1,418,354,753  | 1,156,060,903                       | 81.5                      |

<sup>&</sup>lt;sup>1</sup> The ARC has been recalculated for all years presented in order to reflect only the employer's share of the annual required contributions and current assumptions.

#### **Other Postemployment Benefits**

| Fiscal Year       | Annual<br>Required |                         | Other                      |                           |
|-------------------|--------------------|-------------------------|----------------------------|---------------------------|
| Ended<br>Sept. 30 | Contribution (ARC) | Actual<br>Contributions | Governmental Contributions | Percentage<br>Contributed |
| 2007              | \$ 2,497,157,802   | \$ 671,680,400          | \$ 63,054                  | 26.9 %                    |
| 2008              | 2,425,676,758      | 649,571,071             | 102,115                    | 26.8                      |
| 2009              | 2,501,979,818      | 705,464,357             | 55,243                     | 28.2                      |
| 2010              | 2,363,039,053      | 675,117,153             | 39,979,715                 | 30.3                      |
| 2011              | 2,149,488,837      | 794,839,611             | 118,255,275                | 42.5                      |

<sup>&</sup>lt;sup>2</sup> Differences between the ARC and the actual contributions are the result of a timing difference between when the actuarial valuation is completed and the contributions are made. In addition, for fiscal years 2004, 2005, and 2006, transfers from the stabilization sub-account in the amount of \$143.0 million, \$187.4 million, and \$54.2 million, respectively, were made to intentionally stabilize the contribution rates. The sub-account has no balance or activity since 2006.

<sup>&</sup>lt;sup>3</sup> Pursuant to Public Act 15 of 2007, the System's assets were revalued to their actual market value as of September 30, 2006. The five-year smoothing began again in fiscal year 2008.

### **Note to Required Supplementary Information**

### **NOTE A - DESCRIPTION**

Ten year historical trend information designed to provide information about the System's progress made in accumulating sufficient assets to pay benefits when due is presented in the preceding schedules. Other ten year historical trend information related to the System is presented in the Statistical and Actuarial Sections of the report. This information is presented to enable the reader to assess the progress made by the System in accumulating sufficient assets to pay pension and other postemployment benefits as they become due. Because this is the fifth year the System is reporting other postemployment benefits in accordance with GASB Statement No. 43, only five years of historical trend information is provided.

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

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

# **Supporting Schedules**

## Comparative Summary Schedule of Pension Plan Administrative Expenses For Fiscal Years Ended September 30, 2011, and 2010

|  | 2011          | 2010          |
|--|---------------|---------------|
| Personnel Services:                          |               |               |
| Staff Salaries                               | \$ 5,936,898  | \$ 6,884,991  |
| Retirement and Social Security               | 1,977,027     | 2,064,333     |
| Other Fringe Benefits                        | 1,367,745     | 1,429,041     |
| Total  | 9,281,670     | 10,378,365    |
| Professional Services:                       |               |               |
| Accounting                                   | 1,339,485     | 1,175,842     |
| Actuarial                                    | 241,792       | 237,481       |
| Attorney General                             | 333,757       | 305,632       |
| Audit  | 64,361        | 61,081        |
| Consulting                                   | 513,653       | 253,983       |
| Medical                                      | 377,922       | 469,184       |
| Total  | 2,870,970     | 2,503,203     |
| Building and Equipment:                      |               |               |
| Building Rentals                             | 898,134       | 1,088,552     |
| Equipment Purchase, Maintenance, and Rentals | 52,910        | 33,630        |
| Total  | 951,044       | 1,122,182     |
| Miscellaneous:                               |               |               |
| Travel and Board Meetings                    | 24,369        | 24,562        |
| Office Supplies                              | 36,662        | 40,996        |
| Postage, Telephone, and Other                | 1,610,827     | 1,914,723     |
| Printing                                     | 466,991       | 534,953       |
| Technological Support                        | 7,683,860     | 9,481,715     |
| Total  | 9,822,709     | 11,996,949    |
| Total Administrative Expenses                | \$ 22,926,393 | \$ 26,000,699 |

### Comparative Summary Schedule of OPEB Plan Administrative Expenses For Fiscal Years Ended September 30, 2011, and 2010

|                               | 2011           | 2010          |
|-------------------------------|----------------|---------------|
| Health Fees                   | \$ 108,753,107 | \$ 50,000,427 |
| Dental Fees                   | 5,037,670      | 4,430,583     |
| Total Administrative Expenses | \$ 113,790,777 | \$ 54,431,010 |

# **Supporting Schedules (continued)**

# Schedule of Investment Expenses For Fiscal Years Ended September 30, 2011, and 2010

|   | 2011   | 2010  |
|---|--|---|
| Real Estate Operating Expenses Securities Lending Expenses Other Investment Expenses <sup>1</sup> | \$ 2,040,071<br>16,430,800                       | \$ 2,059,408<br>23,477,470                        |
| ORS-Investment Expenses <sup>2</sup> Custody Fees Management Fees Research Fees                   | 9,672,298<br>678,752<br>115,573,395<br>1,882,986 | 10,077,528<br>658,247<br>118,987,927<br>1,772,644 |
| Total Investment Expenses   | \$ 146,278,302                                   | \$ 157,033,224                                    |

<sup>&</sup>lt;sup>1</sup> Refer to the Investment Section for fees paid to investment professionals

## Schedule of Payments for Professional Services For Fiscal Years Ended September 30, 2011, and 2010

|                                       | 2011                       |   | 2010                       |
|---------------------------------------|----------------------------|---|----------------------------|
| Accounting<br>Actuary                 | \$<br>1,339,485<br>241,792 |   | \$<br>1,175,842<br>237,481 |
| Attorney General Independent Auditors | 333,757<br>64,361          |   | 305,632<br>61,081          |
| Consulting                            | 513,653                    |   | 253,983                    |
| Medical Advisor                       | 377,922                    |   | 469,184                    |
| Total Payments                        | \$<br>2,870,970            | į | \$<br>2,503,203            |

<sup>&</sup>lt;sup>2</sup> Does not exclude Treasury Civil Service fees of \$116,586 recorded as a pass through in the Schedule of Investment Fees - State Treasurer.

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## **Supporting Schedules (continued)**

Detail of Changes in Plan Net Assets (Pension and Other Postemployment Benefits) For the Year Ended September 30,2011

|  | (  | Employee<br>Contributions | Employee<br>Contributions<br>Pension Plus | Member<br>Investment<br>Plan | (  | Employer<br>Contributions |
|--|----|---------------------------|---|------------------------------|----|---------------------------|
| Additions:                                   |    |                           |   |                              |    |                           |
| Contributions:                               |    |                           |   |                              |    |                           |
| Member contributions                         | \$ | 27,531,703                | \$ 6,351,179                              | \$<br>298,326,252            |    |                           |
| Employer contributions:                      |    |                           |   |                              |    |                           |
| Colleges, universities and federal           |    |                           |   |                              | \$ | 95,354,642                |
| School districts and other                   |    |                           |   |                              |    | 1,057,258,126             |
| Other governmental contributions             |    |                           |   | <br>                         |    |                           |
| Total contributions                          |    | 27,531,703                | 6,351,179                                 | <br>298,326,252              |    | 1,152,612,768             |
| Investment income (loss):                    |    |                           |   |                              |    |                           |
| Net appreciation (depreciation) in fair      |    |                           |   |                              |    |                           |
| value of investments                         |    |                           |   |                              |    |                           |
| Interest, dividends, and other               |    |                           |   |                              |    |                           |
| Investment expenses:                         |    |                           |   |                              |    |                           |
| Real estate operating expenses               |    |                           |   |                              |    |                           |
| Other investment expenses                    |    |                           |   |                              |    |                           |
| Securities lending activities:               |    |                           |   |                              |    |                           |
| Securities lending income                    |    |                           |   |                              |    |                           |
| Securities lending expenses                  |    |                           |   | <br>                         |    |                           |
| Net investment income (loss)                 |    |                           |   | <br>                         |    | _                         |
| Transfers from other systems                 |    | 4,583                     |   |                              |    |                           |
| Miscellaneous income                         |    |                           |   | 4,680                        |    | 3,748                     |
| Total additions                              |    | 27,536,286                | 6,351,179                                 | <br>298,330,932              |    | 1,152,616,516             |
| Deductions:                                  |    |                           |   |                              |    |                           |
| Benefits and refunds paid to plan            |    |                           |   |                              |    |                           |
| members and beneficiaries:                   |    |                           |   |                              |    |                           |
| Retirement benefits                          |    |                           |   |                              |    |                           |
| Health benefits                              |    |                           |   |                              |    |                           |
| Dental/vision benefits                       |    |                           |   |                              |    |                           |
| Refund of contributions                      |    | 3,415,667                 | 34,159                                    | 31,799,548                   |    | 1,311,729                 |
| Transfers to other systems                   |    | 2,169                     |   |                              |    |                           |
| Administrative expenses                      |    | 2.417.026                 | 24150                                     | <br>21.700.740               |    | 1 211 720                 |
| Total deductions                             |    | 3,417,836                 | 34,159                                    | <br>31,799,548               |    | 1,311,729                 |
| Net Increase (Decrease) before other changes |    | 24,118,450                | 6,317,020                                 | 266,531,384                  |    | 1,151,304,787             |
| Other Changes in Net Assets:                 |    | 56 276 202                |   | 72 120 400                   |    |                           |
| Interest allocation                          |    | 56,376,302                |   | 73,139,490                   |    |                           |
| Transfers upon retirement                    |    | (87,160,689)              |   | (226,180,694)                |    | (6.464.206.027)           |
| Transfers of employer shares                 |    | (20.704.207)              |   | <br>(152.041.204)            |    | (6,464,296,037)           |
| Total other changes in net assets            |    | (30,784,387)              |   | <br>(153,041,204)            |    | (6,464,296,037)           |
| Net Increase (Decrease)                      |    | (6,665,937)               | 6,317,020                                 | 113,490,180                  |    | (5,312,991,250)           |
| Net Assets Held in Trust for Pension         |    |                           |   |                              |    |                           |
| and OPEB Benefits:                           |    |                           |   |                              |    |                           |
| Beginning of Year                            |    | 1,507,095,849             | 16,400                                    | <br>4,219,847,710            |    | (20,572,339,999)          |
| End of Year                                  | \$ | 1,500,429,912             | \$ 6,333,420                              | \$<br>4,333,337,890          | \$ | (25,885,331,249)          |
|  |    |                           |   |                              |    |                           |

# **Supporting Schedules (continued)**

| Employer<br>Contributions<br>Pension Plus | Retired<br>Benefit<br>Payments      | Retired<br>Benefit Payments<br>Pension Plus | Undistributed<br>Investment<br>Income | ОРЕВ                                     | Total                                       |
|---|-------------------------------------|---|---------------------------------------|--|---|
|   |                                     |   |                                       | \$ 384,978,107                           | \$ 717,187,241                              |
| \$ 505,997<br>2,942,138                   |                                     |   |                                       | 82,554,711<br>712,284,900<br>163,948,595 | 178,415,350<br>1,772,485,164<br>163,948,595 |
| 3,448,135                                 |                                     |   |                                       | 1,343,766,313                            | 2,832,036,350                               |
|   |                                     |   | \$ 670,314,955<br>730,519,918         | 26,523,048<br>109,203,369                | 696,838,003<br>839,723,287                  |
|   |                                     |   | (1,962,422)<br>(122,942,825)          | (77,649)<br>(4,864,606)                  | (2,040,071)<br>(127,807,431)                |
|   |                                     |   | 71,619,453<br>(15,805,411)            | 2,833,841<br>(625,389)                   | 74,453,294<br>(16,430,800)                  |
|   |                                     |   | 1,331,743,668                         | 132,992,614                              | 1,464,736,282                               |
|   | ¢ 551 120                           |   | 144.406                               | 94752                                    | 4,583                                       |
| 3,448,135                                 | \$ 551,128<br>551,128               |   | 144,406<br>1,331,888,074              | 84,753<br>1,476,843,680                  | 788,715<br>4,297,565,930                    |
|   | 3,942,027,101                       |   |                                       | 815,311,950                              | 3,942,027,101<br>815,311,950                |
|   | 29,934                              |   |                                       | 94,711,184<br>39,133                     | 94,711,184<br>36,630,170<br>2,169           |
|   |                                     |   | 22,926,393                            | 113,790,777                              | 136,717,170                                 |
| 3,448,135                                 | 3,942,057,035 (3,941,505,907)       |   | 22,926,393<br>1,308,961,681           | 1,023,853,044<br>452,990,636             | 5,025,399,744 (727,833,814)                 |
| 10,573                                    | 2,653,946,159<br>313,341,383        |   | (2,783,472,524)                       | .62,550,666                              | (127,000,011)                               |
| 10,573                                    | 6,464,296,037<br>9,431,583,579      |   | (2,783,472,524)                       |  |   |
| 3,458,708                                 | 5,490,077,672                       | -   | (1,474,510,843)                       | 452,990,636                              | (727,833,814)                               |
| 151,048<br>\$ 3,609,756                   | 33,174,326,990<br>\$ 38,664,404,662 | - \$ -                                      | 17,526,379,847<br>\$ 16,051,869,004   | 999,325,217<br>\$ 1,452,315,853          | 36,854,803,062<br>\$ 36,126,969,248         |
|   |                                     | <u> </u>                                    |                                       | . , - ,,                                 | , , ,                                       |

# **Supporting Schedules (continued)**

Detail of Changes in Plan Net Assets (Pension and Other Postemployment Benefits) For the Year Ended September 30, 2010

|  | Employee<br>ontributions | Con | nployee<br>tributions<br>sion Plus | Member<br>Investment<br>Plan |               | Employer<br>Contributions |
|--|--------------------------|-----|------------------------------------|------------------------------|---------------|---------------------------|
| Additions:                                   |                          |     |                                    |                              |               |                           |
| Contributions:                               |                          |     |                                    |                              |               |                           |
| Member contributions                         | \$<br>58,263,354         | \$  | 16,400                             | \$                           | 319,469,001   |                           |
| Employer contributions:                      |                          |     |                                    |                              |               |                           |
| Colleges, universities and federal           |                          |     |                                    |                              |               | \$<br>86,500,219          |
| School districts and other                   |                          |     |                                    |                              |               | 914,600,406               |
| Other governmental contributions             | <br>                     |     |                                    |                              |               |                           |
| Total contributions                          | <br>58,263,354           |     | 16,400                             |                              | 319,469,001   | <br>1,001,100,625         |
| Investment income (loss):                    |                          |     |                                    |                              |               |                           |
| Net appreciation (depreciation) in fair      |                          |     |                                    |                              |               |                           |
| value of investments                         |                          |     |                                    |                              |               |                           |
| Interest, dividends, and other               |                          |     |                                    |                              |               |                           |
| Investment expenses:                         |                          |     |                                    |                              |               |                           |
| Real estate operating expenses               |                          |     |                                    |                              |               |                           |
| Other investment expenses                    |                          |     |                                    |                              |               |                           |
| Securities lending activities:               |                          |     |                                    |                              |               |                           |
| Securities lending income                    |                          |     |                                    |                              |               |                           |
| Securities lending expenses                  |                          |     |                                    |                              |               |                           |
| Net investment income (loss)                 | <br>                     |     |                                    |                              |               | _                         |
| Transfers from other systems                 | 16,504                   |     |                                    |                              |               |                           |
| Miscellaneous income                         |                          |     |                                    |                              | 36,697        | 355                       |
| Total additions                              | 58,279,858               |     | 16,400                             |                              | 319,505,698   | 1,001,100,980             |
| <b>Deductions:</b>                           |                          |     |                                    |                              |               |                           |
| Benefits and refunds paid to plan            |                          |     |                                    |                              |               |                           |
| members and beneficiaries:                   |                          |     |                                    |                              |               |                           |
| Retirement benefits                          |                          |     |                                    |                              |               |                           |
| Health benefits                              |                          |     |                                    |                              |               |                           |
| Dental/vision benefits                       |                          |     |                                    |                              |               |                           |
| Refund of contributions                      | 4,284,864                |     |                                    |                              | 29,077,445    | 507,347                   |
| Transfers to other systems                   | 34,848                   |     |                                    |                              | 15,364        |                           |
| Administrative expenses                      |                          |     |                                    |                              |               |                           |
| Total deductions                             | <br>4,319,712            |     | -                                  |                              | 29,092,809    | 507,347                   |
| Net Increase (Decrease) before other changes | 53,960,146               |     | 16,400                             |                              | 290,412,889   | 1,000,593,633             |
| Other Changes in Net Assets:                 |                          |     |                                    |                              |               |                           |
| Interest allocation                          | 61,939,189               |     |                                    |                              | 84,050,039    |                           |
| Transfers upon retirement                    | (246,868,852)            |     |                                    |                              | (649,142,546) |                           |
| Transfers of employer shares                 | <br>                     |     |                                    |                              |               | <br>(13,612,846,880)      |
| Total other changes in net assets            | <br>(184,929,663)        |     |                                    |                              | (565,092,507) | <br>(13,612,846,880)      |
| Net Increase (Decrease)                      | (130,969,517)            |     | 16,400                             |                              | (274,679,618) | (12,612,253,247)          |
| Net Assets Held in Trust for Pension         |                          |     |                                    |                              |               |                           |
| and OPEB Benefits:                           |                          |     |                                    |                              |               |                           |
| Beginning of Year                            | 1,638,065,366            |     | -                                  |                              | 4,494,527,328 | (7,960,086,752)           |
| End of Year                                  | \$<br>1,507,095,849      | \$  | 16,400                             | \$                           | 4,219,847,710 | \$<br>(20,572,339,999)    |
|  |                          |     |                                    |                              |               |                           |

# **Supporting Schedules (continued)**

| Employer<br>Contributions<br>Pension Plus | Retired<br>Benefit<br>Payments | Retired<br>Benefit Payments<br>Pension Plus | Undistributed<br>Investment<br>Income | ОРЕВ                                    | Total                                      |
|---|--------------------------------|---|---------------------------------------|---|--|
|   |                                |   |                                       | \$ 125,160,304                          | \$ 502,909,059                             |
| \$ 3,498<br>147,550                       |                                |   |                                       | 64,319,424<br>610,797,729<br>39,979,715 | 150,823,141<br>1,525,545,685<br>39,979,715 |
| 151,048                                   | _                              |   |                                       | 840,257,172                             | 2,219,257,600                              |
|   |                                |   |                                       |   |  |
|   |                                |   | \$ 2,871,968,729<br>754,872,112       | 75,472,172<br>76,905,104                | 2,947,440,901<br>831,777,216               |
|   |                                |   | (2,006,675)<br>(128,129,251)          | (52,733)<br>(3,367,095)                 | (2,059,408)<br>(131,496,346)               |
|   |                                |   | 88,594,301<br>(22,847,074)            | 2,328,161<br>(600,396)                  | 90,922,462<br>(23,447,470)                 |
|   |                                |   | 3,562,452,142                         | 150,685,213                             | 3,713,137,355                              |
|   | \$ 484,833                     |   | 51,933                                | 195,136                                 | 16,504<br>768,954                          |
| 151,048                                   | 484,833                        |   | 3,562,504,075                         | 991,137,521                             | 5,933,180,413                              |
|   |                                |   |                                       |   |  |
|   | 3,525,020,341                  |   |                                       | 566,550,299<br>84,127,158               | 3,525,020,341<br>566,550,299<br>84,127,158 |
|   | 1,755                          |   | 1,947                                 | 52,545                                  | 33,925,903                                 |
|   |                                |   | 26,000,699                            | 54,431,010                              | 50,212<br>80,431,709                       |
|   | 3,525,022,096                  |   | 26,002,646                            | 705,161,012                             | 4,290,105,622                              |
| 151,048                                   | (3,524,537,263)                | -   | 3,536,501,429                         | 285,976,509                             | 1,643,074,791                              |
|   | 1,643,704,146<br>896,011,398   |   | (1,789,693,374)                       |   |  |
|   | 13,612,846,880                 | -   |                                       |   |  |
|   | 16,152,562,424                 |   | (1,789,693,374)                       |   |  |
| 151,048                                   | 12,628,025,161                 | -   | 1,746,808,055                         | 285,976,509                             | 1,643,074,791                              |
|   | 20,546,301,829                 |   | 15,779,571,792                        | 713,348,708                             | 35,211,728,271                             |
| \$ 151,048                                | \$ 33,174,326,990              | \$ -  | \$ 17,526,379,847                     | \$ 999,325,217                          | \$ 36,854,803,062                          |

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Prepared by Michigan Department of Treasury, Bureau of Investments Jon M. Braeutigam, Director

Report on Investment Activity
Asset Allocation
Investment Results
List of Largest Stock Holdings
List of Largest Bond Holdings
Schedule of Investment Fees
Schedule of Investment Commissions
Investment Summary

### **Report on Investment Activity**

#### INTRODUCTION

The State Treasurer reports investment activity quarterly to the Investment Advisory Committee (Committee), which reviews the investments, goals, and objectives of the retirement funds and may submit recommendations regarding them to the State Treasurer. The Investment Advisory Committee may also, by a majority vote, direct the State Treasurer to dispose of any holdings that, in the Committee's judgment, are not suitable for the funds involved, and may, by unanimous vote, direct the State Treasurer to make specific investments.

The Investment Advisory Committee was created by Act 380 of the Public Acts of 1965. The three public members of the five-member committee are appointed by the Governor with the advice and consent of the Senate for three-year terms. The Director of the Department of Licensing and Regulatory Affairs and the Director of the Department of Technology, Management and Budget are ex-officio members. As of September 30, 2011, members of the Committee were as follows: David G. Sowerby, CFA (public member), James B. Nicholson (public member), Roger D. Robinson (public member), Steven H. Hilfinger (ex-officio member), and John E. Nixon, CPA (ex-officio member). The public members serve without pay, but may be paid actual and necessary travel and other expenses.

#### **INVESTMENT POLICY & GOALS**

Investment policy states that the fiduciary will operate within standard investment practices of the prudent person and in accordance with Public Employee Retirement System Investment Act 314 of 1965. The fiduciary is authorized to invest in government obligations, corporate obligations, various short-term obligations, corporate (domestic and international) stocks, private equity interests, mutual funds, real estate interests, and other investments subject to specific parameters. Above all, trust fund assets are to be invested for the exclusive benefit of the members of the System, in a fiduciary capacity.

The System's Proxy Voting Policy sets forth directives on the following issues: Boards of Directors, corporate governance, social issues, corporate restructurings and defenses. All proxies are reviewed and voted in accordance with the System's policy.

The primary function of the System is to provide retirement, survivor and disability benefits along with health and other postemployment benefits to its members. The State Treasurer is the sole investment fiduciary and custodian of the System's investments pursuant to State law. The goals of the System are:

- 1. Achieve the optimal rate of return possible within prudent levels of risk.
- 2. Maintain sufficient liquidity to pay benefits.
- 3. Diversify assets to preserve capital and avoid large losses.
- 4. Meet or exceed the actuarial assumption over the long term.
- 5. Perform in the top half of the public plan universe over the long term.
- 6. Exceed individual asset class benchmarks over the long term.
- 7. Operate in a cost-effective manner.

The strategy for achieving these goals is carried out by investing the assets of the System according to a two-year asset allocation model. The System currently invests in seven different asset classes, which provides for a well-diversified portfolio.

### **Report on Investment Activity (continued)**

# Asset Allocation (Excludes Collateral on Loaned Securities)

| Investment Category          | As of 9/30/11<br>Actual % | Two-Year<br>Target % |
|------------------------------|---------------------------|----------------------|
| Domestic Equity Pools        | 28.5 %                    | 33.0 %               |
| International Equity Pools   | 12.4                      | 16.0                 |
| Alternative Investment Pools | 22.7                      | 14.0                 |
| Real Estate Pool             | 10.4                      | 9.0                  |
| Fixed Income Pools           | 15.1                      | 16.0                 |
| Absolute Return Pools        | 6.3                       | 10.0                 |
| Short Term Investment Pools  | 4.6                       | 2.0                  |
| TOTAL                        | 100.0 %                   | 100.0 %              |

### INVESTMENT AUTHORITY

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

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

### INVESTMENT RESULTS

#### **Total Portfolio Results**

For the fiscal year ended September 30, 2011, the total System's rate of return was 6.6% as compiled by State Street Investment Analytics. Annualized rates of return for the three, five, seven, and ten year periods ending September 30, 2011 were: 2.9%, 2.3%, 5.2%, and 5.1% respectively.

At the beginning of the 2011 fiscal year, the health of the United States' economy was in question. The unemployment rate was 9.7%, GDP was growing only at a 2% annualized rate, and inflation (CPI) was measured at 1.1%. On November 3, 2010 the Federal Open Market Committee (FOMC) determined that a second round of quantitative easing was necessary in order to reduce the unemployment rate and to fight a threat of deflation. The policy, sometimes referred to as QE2, called for a purchase of \$600 billion of longer-term Treasury securities by the end of June 30, 2011. The adoption of the policy was controversial and its overall effectiveness is likely to be debated for years to come. However, during the first three quarters of the fiscal year, when QE2 was implemented, the System's rate of return was 13.6% earning a positive rate of return in each quarter.

In February, the 10-Year U.S. Treasury hit its highest yield for the fiscal year at just over 3.7%. Global equity markets peaked in the spring of 2011 and the S&P 500 hit its closing fiscal year high at 1363.61 on April 29, 2011. On March 11, 2011 a massive 9.1-magnitude earthquake struck an area of the Pacific Ocean east of Japan. As a result of the earthquake, a giant tsunami devastated parts of the country. Hit especially hard was the Fukushima Daiichi nuclear power plant, the largest nuclear accident since the 1986 Chernobyl disaster. As a result, many Japanese companies were

### **Report on Investment Activity (Continued)**

unable to operate. Since Japan is a major supplier to the global economy, manufacturers reported shortages for key components, crimping global output.

The price paid for a barrel of crude oil was especially volatile in the winter months due to a loosely-linked series of demonstrations, government protests, and revolutions known as "Arab Spring". These events occurred across a number of Middle East and North African countries, many of which are oil producing exporters. In one instance, oil prices jumped by over 8.5% as unrest in Libya intensified.

By early summer, many economists came to believe that the Arab Spring and the Japanese tsunami caused a temporary weakness in the global economy that would resolve itself in the second half of the year. About the same time, however, European sovereign debt concerns began to re-emerge. Soaring interest rates in some highly indebted countries were forcing politicians to adopt various austerity measures. Adding complexity to the situation, many large European banks are holding sovereign debt as low-risk capital, placing an enormous strain on the health of the European banking industry.

At home, U.S. politicians were debating the wisdom for raising the federal debt ceiling as the legal limit would be reached by July 31. After tense negotiations, a last hour compromise was reached, but not without consequence. Five days later Standard & Poor's, a major debt rating agency, down-graded the credit rating of U.S. debt from AAA to AA.

The prospects of slower global growth, austerity measures, sovereign credit risks, and the end of QE2 apparently were too much for the capital markets to bear. In the final two months of the fiscal year, the S&P 500 lost over 12% of its value while foreign markets lost over 18% in value. Despite the downgrade by Standard & Poor's, the 10-year U.S. Treasury hit an all-time low of 1.72% on September 22, as it remained a global safe-haven. The System ended the fiscal 2011 year with a positive 6.6% return.

At the end of Fiscal 2011, the health of the U.S. economy remained a top concern. The unemployment rate is still over 9% and GDP is barely growing at a rate of 1.3%. The inflation rate has increased to 3.8%, though many economists believe the elevated inflation rate to be transitory given the employment situation and the sluggish economy. In response to the weak economic backdrop, the FOMC is again attempting to stimulate growth. On September 21, 2011 a plan to purchase \$400 billion of bonds with maturities of 6 to 30 years by selling bonds with maturities of less than 3 years was announced. Like QE2, the plan known as "Operation Twist" is an attempt to lower longer-term borrowing rates. However, unlike QE2 this plan is not an expansion for the Federal Reserve's balance sheet or seen as printing money. While it is still too early to determine the effects of Operation Twist; it will be important to closely monitor its success, the 2012 presidential election, the European debt situation, the Arab Spring, and the slowing global growth well into the 2012 fiscal year.

#### **Domestic Equity Pools**

The objective for investments made in domestic equities is to meet or exceed the total return of the S&P 1500 Super Composite for one, three, and five-year periods and a market cycle.

For active management strategies, the objective is to earn returns that exceed the most relevant S&P Index (or the most relevant Russell Index), adjusting for market capitalization and style, for one, three, and five-year periods and a market cycle. Rank above median in a universe of managers possessing a similar market cap and style characteristics.

For index, or passive return strategies, the objective is to return within 20 basis points of the S&P 500 Index, 50 basis points for the S&P 400 mid-cap, and 60 basis points for the S&P 600 small-cap over one, three, and five-year periods and a market cycle.

The pools are invested primarily in equities or equity-related securities of U.S. companies through internal and externally managed strategies. The goal is to build a portfolio of strategies that will provide excess returns relative to

### **Report on Investment Activity (continued)**

the S&P 1500 while providing minimal tracking error to the index. At times a portion of these pools may be invested in exchange traded funds (ETFs) and fixed-income short-term securities with maturities of less than one year.

The pools invest in equities and equity related securities that are listed on U.S. national securities exchanges, including American Depository Receipts (ADRs). They may also invest in stocks that are traded over-the-counter. The pools diversify their investments by allocating their equity strategies with consideration of the capitalization weightings of the S&P 1500 Index.

The following summarizes the weightings of the pools as of September 30, 2011:

| Active    | 60.3 %      |
|-----------|-------------|
| Passive   | 39.7        |
| Total     | 100.0 %     |
|           | <del></del> |
|           |             |
| Large Cap | 82.7 %      |
| Mid Cap   | 9.4         |
| Small Cap | 7.9         |
| Total     | 100.0 %     |

The System's Domestic Equity pools total rate of return was (1.5) % for fiscal year 2011. This compared with 0.9% for the S&P 1500 Index.

At the close of fiscal year 2011, the Domestic Equity pools represented 28.5% of total investments. This compares to 35.2% for fiscal year 2010. The following summarizes the System's 77.3% ownership share of the Domestic Equity pools at September 30, 2011:

# Domestic Equity Pools (in thousands)

| Short Term Pooled Investments    | \$<br>254,919    |
|----------------------------------|------------------|
| Equities                         | 10,338,761       |
| Market Value of Equity Contracts | (22,341)         |
| Settlement Principal Payable     | (37,799)         |
| Settlement Proceeds Receivable   | 28,100           |
| Accrued Dividends                | <br>10,738       |
| Total                            | \$<br>10,572,378 |

### **Report on Investment Activity (Continued)**

#### International Equity Pools

The objective for investments made in International Equity pools is to meet or exceed the total return of the MSCI ACWI Ex-US Gross for one, three, and five-year periods and a market cycle.

For active management strategies, the objective is to earn returns that exceed the most relevant S&P Index (or the most relevant Russell Index), adjusting for market capitalization, style and geography for one, three, and five-year periods and a market cycle. Rank above median in a universe of managers possessing a similar market capitalization, style and geography characteristics.

For index, or passive return strategies, the objective is to return within 250 basis points of the S&P/Citigroup BMI-EPAC Index with 25% of the currency hedged for one, three, and five-year periods and a market cycle. Return within 400 basis points of the MSCI Emerging Markets Index, for one, three, and five-year periods and a market cycle.

Active exposure is invested primarily in equities or equity-related securities of non-U.S. companies through externally managed strategies.

Passive exposure to International Equity returns is achieved primarily by investing in a combination of fixed income LIBOR notes, short-term fixed income investments, and equity swap agreements on foreign stock indices in developed markets. Interest on the dedicated notes and short-term fixed income investments is exchanged for international stock returns, and the total notional amount of the swap agreements is invested in the approximate proportions of the S&P Broad Market Index (BMI) Europe and Pacific Composite (EPAC) country weightings in related indices. Use of swap agreements for a core position began in 1993, an American Depository Receipts (ADR) and index-related security portfolio was added in June of 1999 to increase portfolio management flexibility, and a multiple country fund portfolio with smaller capitalization stocks was added in September of 2002 to improve exposure to the smallest companies in the BMI index. Use of futures as an investment to hedge cash flows and balances began in December of 2008, and this use is expected to continue in the future. The combined Swap agreements, notes and short-term investments together continue to perform like a stock index fund that realizes all gains and losses on a rolling three year basis.

The pools diversify their investments by allocating their equity strategies with consideration of the economic development status weightings of the S&P/Citigroup BMI -World ex-US Index.

The following summarizes the weightings of the pools as of September 30, 2011:

| Active    | 38.9 %  |
|-----------|---------|
| Passive   | 61.1    |
| Total     | 100.0 % |
|           |         |
| Developed | 82.6 %  |
| Emerging  | 17.4    |
| Total     | 100.0 % |

### **Report on Investment Activity (continued)**

The System's International Equity pools total rate of return was (9.9)% for fiscal year 2011. This compared with (10.4)% for the MSCI ACWI Ex US Gross.

At the close of fiscal year 2011, the International Equity pools represented 12.4% of total investments. This compares to 13.4% for fiscal year 2010. The following summarizes the System's 77.6% ownership share of the International Equity Pools at September 30, 2011:

# International Equity Pools (in thousands)

| Short Term Pooled Investments    | \$<br>88,637    |
|----------------------------------|-----------------|
| Equities                         | 2,947,127       |
| Fixed Income Securities          | 1,493,374       |
| Market Value of Equity Contracts | 62,531          |
| Accrued Dividends and Interest   | <br>2,916       |
| Total                            | \$<br>4,594,585 |

#### **Alternative Investment Pools**

The Alternative Investment pools objective is to meet or exceed the benchmark for all private equity investments over long time periods. The benchmark is a blend of the S&P 500 Index plus 300 basis points and the 10 Year Yield plus 300 basis points using ending weights of equity and fixed income holdings within the portfolio.

Alternative Investments are investments in the private equity market, primarily through limited partnerships. The following summarizes the weightings of the pools as of September 30, 2011:

| Buyout Funds            | 55.6 %  |
|-------------------------|---------|
| Special Situation Funds | 20.0    |
| Venture Capital Funds   | 10.8    |
| Fund of Funds           | 5.1     |
| Liquidation Portfolio   | 3.8     |
| Other                   | 2.5     |
| Mezzanine Funds         | 2.2     |
| Total                   | 100.0 % |

The Alternative Investment pools had a return of 29.9% for the fiscal year ended September 30, 2011, versus the benchmark of 33.2%.

At the close of fiscal year 2011, the Alternative Investment pools represented 22.7% of total investments. This compares to 21.6% for fiscal year 2010. The following summarizes the System's 79.2% ownership share of the Alternative Investment pools at September 30, 2011:

### **Report on Investment Activity (Continued)**

# Alternative Investment Pools (in thousands)

 Short Term Pooled Investments
 \$ 98,787

 Equities
 8,348,875

 Total
 \$ 8,447,662

#### Real Estate Pool

The Real Estate pool seeks favorable returns primarily through rental income and appreciation of real estate investments. Real estate investments are typically held through various legal investment entities, such as limited partnerships or limited liability companies, established for the specific purpose of owning, leasing, managing, financing, or developing real estate and real estate related investments. Independent third parties regularly value the real estate investments to establish market values.

The Real Estate pool diversifies its holdings by:

- Geography The pool is diversified geographically with emphasis placed upon domestic (U.S.) real estate investments. Foreign real estate investments are limited to 20% of the value of the pool.
- Property Size and Value The pool diversifies its holdings by size so that it is not concentrated in a limited number of large real estate investments.
- Property Type The pool is diversified by type of property as summarized in the table below.

| 22.4 %  |
|---------|
| 19.2    |
| 22.5    |
| 17.0    |
| 7.6     |
| 6.5     |
| 2.5     |
| 1.1     |
| 1.2     |
| 100.0 % |
|         |

The Real Estate pool generated a return of 16.9% for fiscal year 2011. The two benchmark returns from the National Council of Real Estate Investment Fiduciaries (NCREIF): the National Property Blended Index (less 130 basis points) was 14.6% and the Open-End Diversified Core Equity Index was 17.2%. The Real Estate pool benefited from increased valuations as commercial real estate fundamentals improved in all property types. Transaction activity increased from historical low levels as investors bid up property prices on top quality cash flowing assets in major markets.

### **Report on Investment Activity (continued)**

At the close of fiscal year 2011, the Real Estate pool represented 10.4% of total investments. This compares to 8.5% for fiscal year 2010. The following summarizes the System's 77.7% ownership share of the Real Estate pool at September 30, 2011:

# Real Estate Pool (in thousands)

| Short Term Pooled Investments | \$<br>50,758    |
|-------------------------------|-----------------|
| Equities                      | 3,811,635       |
| Total                         | \$<br>3,862,393 |

#### Fixed Income Pools

The objective for investments made in the Fixed Income pools is to meet or exceed the total blended return of 50% of the Barclays U.S. Government Index and 50% of the Barclays U.S. Credit Index over one, three, and five-year periods and market cycles. Rank above median in a nationally recognized universe of managers possessing a similar style.

For Fixed Income sub-strategies, the objective return is to meet or exceed the most relevant Barclays benchmark index.

The pools are invested primarily in fixed income securities of U.S. companies through internal and externally managed strategies. The goal is to build a portfolio of strategies that will provide excess returns relative to the blended benchmark while providing minimal tracking error to the index. At times a portion of the pools may be invested in exchange traded funds (ETFs) and fixed-income short-term securities with maturities of less than one year.

The pools invest in fixed income and related securities in a diversified portfolio of investment grade corporate issues, treasuries, agencies, government sponsored enterprises and government guaranteed mortgages. The pools diversify its investments by allocating its strategies with consideration of credit risk.

The System's Fixed Income pools total rate of return was 4.5% for fiscal year 2011. This compared with 5.1% for the blended return of 50% of the Barclays U.S. Government Index and 50% of the Barclays U.S. Credit Index.

At the close of fiscal year 2011, the Fixed Income pools represented 15.1% of total investments. This compares to 16.5% for fiscal year 2010. The following summarizes the System's 77.6% ownership share of the Fixed Income pools at September 30, 2011:

# Fixed Income Pools (in thousands)

| Short Term Pooled Investments  | \$<br>217,744   |
|--------------------------------|-----------------|
| Fixed Income Securities        | 5,415,654       |
| Settlement Proceeds Receivable | 117             |
| Settlement Principal Payable   | (51,757)        |
| Accrued interest               | 41,888          |
| Total                          | \$<br>5,623,646 |

### **Report on Investment Activity (Continued)**

#### Absolute Return Pools

The Absolute Return Pools consist of the Absolute Return Strategies Pool and the Real Return and Opportunistic Investment Pool.

The primary investment objective of the Absolute Return Strategies Pool is to generate a rate of return that meets or exceeds T-bills by 400 basis points net of fees over the one, three, and five-year periods and a market cycle. Also, exceed the appropriate HFN Fund of Funds median net of fees over one, three, and five-year periods and a market cycle.

The Absolute Return Strategies pool rate of return for the fiscal year was 1.9% versus the benchmark's 2.4%.

The primary investment objective of the Real Return and Opportunistic Pool is to generate a rate of return that meets or exceeds the increase in the CPI by at least five percent (5%) annually net of fees over one, three, and five-year periods and a market cycle. If a peer universe is available, rank above median in a nationally recognized universe of managers possessing a similar style.

For sub-strategies targeting a commodities index, the objective is to generate a rate of return that meets or exceeds the Dow Jones-AIG Total Return Commodities Index over one, three, and five year periods and a market cycle. Rank above median in a nationally recognized universe of managers possessing a similar style.

The Real Return and Opportunistic Investments pool rate of return for the fiscal year was 5.5%.

At the close of fiscal year 2011, the Absolute Return Pools represented 6.3% of total investments. This compares to 3.7% for fiscal year 2010. The following summarizes the System's 78.7% ownership share of the Absolute Return Pools at September 30, 2011:

# Absolute Return Pools (in thousands)

| Absolute Return Strategies Pool               | \$<br>1,329,727 |
|---|-----------------|
|   |                 |
| Real Return and Opportunistic Investment Pool |                 |
| Short Term Pooled investments                 | \$<br>28,327    |
| Equities                                      | 948,511         |
| Market Value of Equity Contracts              | 268             |
| Fixed Income Securities                       | 27,750          |
| Settlement Principal Payable                  | (2,325)         |
| Accrued Dividends and Interest                | 846             |
| Total   | \$<br>2,333,104 |

### **Short Term Investment Pools**

The objective of the Short Term Investment pools is to closely match the return performance of its benchmark, the 30 day Treasury bill. The Short Term Investment pools return for the fiscal year was 0.3% versus the benchmark's 0.1%.

Potential areas of investment are:

- Obligations of the United States or its agencies.
- Banker's acceptances, commercial accounts, certificates of deposit or depository receipts.
- Repurchase agreements for the purchase of securities issued by the US government or its agencies.
- Commercial paper rated at the time of purchase within the two highest classifications established by not less than two national rating services as determined by the State Treasurer.
- Short duration investment grade corporate issues.

### **Report on Investment Activity (continued)**

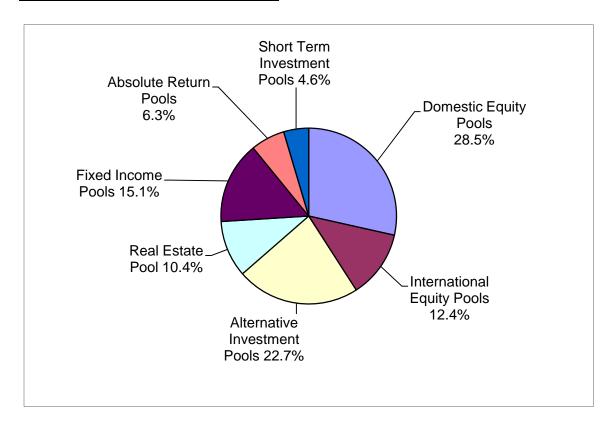
At the close of fiscal year 2011, the Short Term Investment pools represented 4.6% of total investments. This compares to 1.1% for fiscal year 2010. The following summarizes the System's 70.6% ownership share of the Short Term Investment pools at September 30, 2011:

# Short Term Investment Pools (in thousands)

| Short Term Pooled Investments | \$<br>1,433,169 |
|-------------------------------|-----------------|
| Healthcare Contribution*      | 281,193         |
| Fixed Income Securities       | 7,929           |
| Accrued interest              | 7               |
| Total                         | \$<br>1,722,298 |

<sup>\*</sup>PA 75 of 2010 requires each actively employed member of MPSERS to contribute toward health care benefits. Contributions to this account are held and invested separately.

### <u>Asset Allocation – Security Type Only</u>



### **Report on Investment Activity (Continued)**

### **Investment Results for the Period Ending September 30, 2011**

|  |              | Annualized Rate of Return <sup>1</sup> |         |          |  |
|--|--------------|--|---------|----------|--|
| Investment Category                          | Current Year | 3 Years                                | 5 Years | 10 Years |  |
| Total Portfolio                              | 6.6 %        | 2.9 %                                  | 2.3 %   | 5.1 %    |  |
| Domestic Equity Pools                        | (1.5)        | 1.3                                    | (1.0)   | 3.0      |  |
| S&P 1500 Index                               | 0.9          | 1.4                                    | 0.9     | 3.3      |  |
| International Equity Pools                   | (9.9)        | 0.8                                    | (3.4)   | 4.5      |  |
| International Blended Benchmark <sup>2</sup> | (10.4)       | (1.2)                                  | (4.1)   | 4.3      |  |
| Alternative Investment Pools                 | 29.9         | 6.7                                    | 10.8    | 10.2     |  |
| Alternative Blended Benchmark <sup>3</sup>   | 33.2         | 13.3                                   | 7.3     | 8.8      |  |
| Real Estate Pool                             | 16.9         | (9.2)                                  | (0.8)   | 5.0      |  |
| NCREIF Property Blended Index <sup>4</sup>   | 14.6         | (2.7)                                  | 2.1     | 6.7      |  |
| Fixed Income Pools                           | 4.5          | 9.3                                    | 7.3     | 6.0      |  |
| Barclays Government/Credit                   | 5.1          | 8.4                                    | 6.5     | 5.7      |  |
| Absolute Return Pools                        |              |  |         |          |  |
| Total Absolute Return                        | 1.9          | (3.4)                                  |         |          |  |
| HFRI Fund of Funds Cons 1 month lag          | 2.4          | (1.9)                                  |         |          |  |
| Total Real Return and Opportunistic          | 5.5          |  |         |          |  |
| Short Term Investment Pools                  | 0.3          | 1.1                                    | 1.4     | 1.9      |  |
| 30 Day Treasury Bill                         | 0.1          | 0.1                                    | 1.5     | 1.8      |  |

<sup>1</sup> Calculations used a time-weighted rate of return based on the market rate of return in accordance with industry standards. Excludes income and investment gains and losses from securities lending.

<sup>2</sup> As of 10/1/10, index is MSCI ACWI Ex-US Gross. History 1/1/10 to 9/30/10 is S&P Developed BMI-EPAC Net 75/25. History prior to 1/1/10 is S&P Developed BMI-EPAC Net 50/50.

<sup>3</sup> As of 1/1/07, index is blend of S&P 500 plus 300 bps and 10 year yield plus 300 bps based on ending weights. History prior to 1/1/07 is S&P500 plus 300 bps.

<sup>4</sup> As of 10/1/05, index is NCREIF less 130 bp. History prior to 10/1/05 reflects NCREIF1ess 75 bp.

# Largest Assets Held<sup>1</sup>

### Largest Stock Holdings (By Market Value) September 30, 2011

| Rank | Shares    | Stocks                  | Market Value   |
|------|-----------|-------------------------|----------------|
| 1    | 836,553   | Apple Inc.              | \$ 318,877,339 |
| 2    | 408,787   | Google Inc.             | 210,271,832    |
| 3    | 3,058,181 | Johnson & Johnson       | 194,836,713    |
| 4    | 2,241,155 | Exxon Mobil Corporation | 162,775,118    |
| 5    | 5,954,327 | Microsoft Corp          | 148,203,197    |
| 6    | 2,886,186 | Abbott Laboratories     | 147,599,540    |
| 7    | 4,424,071 | Merck & Company Inc.    | 144,711,354    |
| 8    | 7,758,415 | Pfizer Inc.             | 137,168,778    |
| 9    | 2,363,211 | Amgen Inc.              | 129,858,431    |
| 10   | 1,070,992 | SPDR S&P 500 ETF Trust  | 121,204,157    |

### Largest Bond Holdings (By Market Value)<sup>2</sup> September 30, 2011

| Rank | Par Amount     | Bonds & Notes                                       | M  | larket Value |
|------|----------------|---|----|--------------|
| 1    | \$ 195,616,159 | JPMorgan Chase & Co .40395% FRN Due 11-1-2012       | \$ | 195,109,513  |
| 2    | 200,948,635    | General Electric Cap Corp .45617% FRN Due 2-15-2017 |    | 179,368,158  |
| 3    | 136,931,311    | Wachovia Corp .383% FRN Due 4-23-2012               |    | 136,949,112  |
| 4    | 117,369,695    | Toyota Motor Credit Corp 3.74605% Due 1-9-2012      |    | 118,437,055  |
| 5    | 117,369,695    | JPMorgan Chase & Co .8525% FRN Due 9-21-2012        |    | 117,460,422  |
| 6    | 76,455,734     | Barclays Bank PLC Due 11-7-2016                     |    | 85,668,650   |
| 7    | 78,246,464     | Wells Fargo & Company .343% FRN Due 1-24-2012       |    | 78,253,349   |
| 8    | 78,246,464     | Rabobank Nederland .59975% FRN Due 1-17-2014        |    | 78,247,794   |
| 9    | 78,246,464     | Barclays Bank PLC 1.10605% FRN Due 1-13-2014        |    | 75,668,243   |
| 10   | 78,246,464     | Textron Financial Corp 1.21428% FRN Due 2-26-2013   |    | 74,124,127   |

<sup>1</sup> A complete list of holdings is available from the Michigan Department of Treasury.

The System's investments are commingled in various pooled accounts. Amounts, par value and number of shares represents the System's pro-rata share based on its ownership of the investment pools.

<sup>2</sup> Largest Bond Holdings are exclusive of securities lending collateral.

## **Schedule of Investment Fees**

The State Treasurer is the investment fiduciary and custodian of the System's funds pursuant to State law. Outside advisors are utilized to augment the State Treasurer's internal staff. 55.62% of the total investment portfolio is managed by fully discretionary outside advisors. The Michigan Department of Treasury's cost of operations applicable to the System for the fiscal year amounted to \$9,672 thousand or five and nine tenths basis points (.059%) of the market value of the Assets under Management of the State Treasurer.

Act 380 of the Public Acts of 1965 created an Investment Advisory Committee (Committee) comprised of the directors of the Department of Licensing and Regulatory Affairs and the Department of Technology, Management & Budget, or their duly authorized representatives, and three public members appointed by the Governor with the advice and consent of the Senate. The public members serve without pay, but may be paid actual and necessary travel and other expenses. The Committee meets quarterly to review investments, goals and objectives and may submit recommendations to the State Treasurer. The Committee may also, by a majority vote, direct the State Treasurer to dispose of any holding which, in the Committee's judgment, is not suitable for the fund involved, and may by unanimous vote direct the State Treasurer to make specific investments.

#### Schedule of Investment Fees

#### Investment Managers' Fees:

| <u> </u>      | sands) Points*    |
|---------------|-------------------|
| 189,724 \$    | 9,672 5.9         |
|               |                   |
| 110,368       | 2,209 19.9        |
| 214,139       | 7,769 35.1        |
| 215,614       | 5,156 23.3        |
| 316,165       | 21,276 75.5       |
| 147,662       | 66,547 78.8       |
| 362,393       | 12,615 32.7       |
| 156,065 \$ 1  | 25,244            |
| 752.963    \$ | 2,562             |
| 1             | 47,662<br>862,393 |

<sup>\*</sup> Alternative Investment partnership agreements that define the management fees, the asset management fees range from 75 basis points on remaining assets under management to 250 basis points of the committed capital. For Real Estate, the asset management fees range from 50 to 200 basis points. For Absolute Return, the asset management fees range from 20 to 200 basis points. These fees, in most cases, are netted against income.

# **Schedule of Investment Commissions**

|   | Fiscal Year Ended September 30, 2011       |  |                                    |  |   |                             |                                |
|---|--|--|------------------------------------|--|---|-----------------------------|--------------------------------|
|   | Actual<br>Commissions<br>Paid <sup>1</sup> | Actual<br>Number of<br>Shares<br>Traded <sup>1</sup> | Average<br>Commission<br>Per Share | Estimated<br>Trade<br>Costs<br>Per Share | Estimated<br>Research<br>Costs<br>Per Share | Estimated<br>Trade<br>Costs | Estimated<br>Research<br>Costs |
| Investment Brokerage Firms:                                   | ¢ 22.427                                   | 056 705  | Φ 0.04                             | Φ 0.01                                   | e 0.02                                      | e 0.560                     | d 25.704                       |
| Banc Of America Securities LLC                                | \$ 33,427                                  | 856,795  | \$ 0.04                            | \$ 0.01                                  | \$ 0.03                                     | \$ 8,568                    | \$ 25,704                      |
| Barclays Capital Inc.   | 174,646                                    | 6,141,595  | 0.03                               | 0.01                                     | 0.02  | 61,416                      | 122,832                        |
| BNY Convergex Execution Solutions LLC<br>BTIG LLC             | 33,138                                     | 1,666,736  | 0.02<br>0.01                       | 0.01                                     | 0.01  | 16,667                      | 16,667                         |
|   | 395,327<br>105,218                         | 35,216,403<br>3,507,282                              | 0.01                               | 0.01<br>0.01                             | 0.02  | 352,164<br>35,073           | 70,146                         |
| The Buckingham Research Group Inc.<br>Cantor Fitzgerald & Co. | 251,764                                    | 3,507,282<br>12,588,105                              | 0.03                               | 0.01                                     | 0.01  | 125,881                     | 125,881                        |
|   | 189,986                                    |  | 0.02                               | 0.01                                     | 0.02  | ,                           |                                |
| Capital Institutional Services Inc.                           |  | 6,332,859  |                                    |  |   | 63,329                      | 126,657                        |
| Citigroup Global Markets Inc. Cowen & Company LLC             | 262,418<br>170,546                         | 9,705,303<br>5,684,871                               | 0.03<br>0.03                       | 0.01<br>0.01                             | 0.02<br>0.02                                | 97,052<br>56,849            | 194,106                        |
| Credit Suisse Securities LLC                                  | 501,187                                    |  | 0.03                               | 0.01                                     | 0.01  | 224,656                     | 113,697<br>224,656             |
| Deutsche Bank - Alex Brown                                    | 301,187                                    | 22,465,574<br>10,588                                 | 0.02                               | 0.01                                     | 0.01  | 106                         | 212                            |
| Deutsche Bank Securities Inc.                                 | 1,833                                      | 61,110   | 0.03                               | 0.01                                     | 0.02  | 611                         | 1,222                          |
|   |  |  | 0.03                               | 0.01                                     | 0.02  |                             | ,                              |
| Goldman, Sachs & Co.<br>The Griswold Company Inc.             | 159,199<br>120,862                         | 5,306,651<br>8,774,609                               | 0.03                               | 0.01                                     | 0.02  | 53,067<br>87,746            | 106,133                        |
| ISI Capital LLC   | 210,533                                    | 7,189,421  | 0.01                               | 0.01                                     | 0.02  | 71,894                      | 143,788                        |
| J. P. Morgan Securities Inc.                                  | 173,834                                    | 7,189,421  | 0.03                               | 0.01                                     | 0.02  | 71,894<br>78,651            | 78,651                         |
| Keefe, Bruyette & Woods Inc.                                  | 6,750                                      | 198,522  | 0.02                               | 0.01                                     | 0.01  | 1,985                       | 3,970                          |
| •   |  | 10.071.930   | 0.03                               | 0.01                                     | 0.02  |                             | ,                              |
| Merrill Lynch,Pierce,Fenner & Smith Inc. MF Global Inc.       | 302,159<br>36,001                          | 1,200,032  | 0.03                               | 0.01                                     | 0.02  | 100,719<br>12,000           | 201,439<br>24,001              |
| Mischler Financial Group Inc.                                 | 87,366                                     | 2,912,205  | 0.03                               | 0.01                                     | 0.02  | 29,122                      | 58,244                         |
| Morgan Stanley & Co. Inc.                                     | 146,931                                    | 4,714,599  | 0.03                               | 0.01                                     | 0.02  | 47,146                      | 94,292                         |
| Oppenheimer & Co. Inc.  | 4,231                                      | 141,022  | 0.03                               | 0.01                                     | 0.02  | 1,410                       | 2,820                          |
| OTA LLC   | 95,295                                     | 3,176,492  | 0.03                               | 0.01                                     | 0.02  | 31,765                      | 63,530                         |
| Raymond James and Associates Inc.                             | 38,506                                     | 1,156,553  | 0.03                               | 0.01                                     | 0.02  | 11,566                      | 23,131                         |
| Sanford C. Bernstein & Co. LLC                                | 189,249                                    | 6,354,690  | 0.03                               | 0.01                                     | 0.02  | 63,547                      | 127,094                        |
| Soleil Securities Corporation                                 | 22,564                                     | 752,119  | 0.03                               | 0.01                                     | 0.02  | 7,521                       | 15,042                         |
| Stifel. Nicolaus & Co. Inc.                                   | 10,138                                     | 256,423  | 0.03                               | 0.01                                     | 0.02  | 2,564                       | 7,693                          |
| UBS Securities LLC  | 89,330                                     | 3,314,364  | 0.04                               | 0.01                                     | 0.02  | 33,144                      | 66,288                         |
| Weeden & Co. LP   | 503,075                                    | 50,306,569   | 0.03                               | 0.01                                     | 0.02  | 503.066                     | 00,200                         |
| Western International Securities Inc.                         | 23,964                                     | 1,198,215  | 0.02                               | 0.01                                     | 0.01  | 11,982                      | 11,982                         |
| Total   | \$ 4,339,795                               | 219,126,725  | \$ 0.03                            | 2 \$ 0.01                                | <sup>2</sup> \$ 0.02                        | <sup>2</sup> \$ 2,191,267   | \$ 2,049,878                   |

<sup>1</sup> Commissions are included in purchase and sale prices of investments. The commissions and shares represent the System's pro-rata share based on ownership of commission and share transactions in the investment pools.

 $<sup>^{2}\,</sup>$  The average per share for all brokerage firms.

# **Investment Summary**

Fiscal Year Ended September 30, 2011

|                              | Market Value <sup>1</sup> | Percent of Total Investment & Interest Income <sup>2</sup> |                  | Percent of Total Investment & |  | Percent of Total Investment & In |  | Percent of Total Investment & Investment |  | Percent of Total Investment & Investmen |  | Percent of Total<br>Investment &<br>Interest Income |
|------------------------------|---------------------------|--|------------------|-------------------------------|--|----------------------------------|--|--|--|---|--|---|
| Fixed Income Pools           | \$ 5,623,645,834          | 15.1 %   | \$ 244,638,235   | 17.0 %                        |  |                                  |  |  |  |   |  |   |
| Domestic Equity Pools        | 10,572,378,037            | 28.5   | (78,178,173)     | (5.4)                         |  |                                  |  |  |  |   |  |   |
| Real Estate Pool             | 3,862,392,582             | 10.4   | 425,249,304      | 29.6                          |  |                                  |  |  |  |   |  |   |
| Alternative Investment Pools | 8,447,661,918             | 22.7   | 1,338,883,301    | 93.2                          |  |                                  |  |  |  |   |  |   |
| International Equity Pools   | 4,594,584,780             | 12.4   | (515,334,872)    | (35.9)                        |  |                                  |  |  |  |   |  |   |
| Absolute Return Pools        | 2,333,104,322             | 6.3  | 19,063,263       | 1.3                           |  |                                  |  |  |  |   |  |   |
| Short Term Investment Pools  | 1,722,298,158             | 4.6  | 2,257,825        | 0.2                           |  |                                  |  |  |  |   |  |   |
| Total                        | \$ 37,156,065,631         | 100.0 %  | \$ 1,436,578,883 | 100.0 %                       |  |                                  |  |  |  |   |  |   |

<sup>&</sup>lt;sup>1</sup> Market value excludes \$4,243,653,251 in securities lending collateral for fiscal year 2011.

Total Investment & Interest Income excludes net security lending income of \$58,022,494 and gain of \$99,982,406 for securities lending collateral.

# **INVESTMENT SECTION**

# **Investment Summary**

Fiscal Year Ended September 30, 2010

|                              | Market Value <sup>1</sup> | Percent of Total  Market Value | Investment & Interest Income <sup>2</sup> | Percent of Total<br>Investment &<br>Interest Income |
|------------------------------|---------------------------|--------------------------------|---|---|
| Fixed Income Pools           | \$ 6,192,733,678          | 16.5 %                         | \$ 617,176,046                            | 17.6 %  |
| Domestic Equity Pools        | 13,215,680,909            | 35.2                           | 1,327,052,280                             | 37.9  |
| Real Estate Pool             | 3,199,648,334             | 8.5                            | (58,190,522)                              | (1.7)   |
| Alternative Investment Pools | 8,134,132,084             | 21.6                           | 1,198,202,543                             | 34.2  |
| International Equity Pools   | 5,030,991,858             | 13.4                           | 334,837,159                               | 9.6   |
| Absolute Return Pools        | 1,399,346,173             | 3.7                            | 76,959,195                                | 2.2   |
| Short Term Investment Pools  | 395,811,853               | 1.1                            | 7,880,639                                 | 0.2   |
| Total                        | \$ 37,568,344,889         | 100.0 %                        | \$ 3,503,917,340                          | 100.0 %   |

<sup>&</sup>lt;sup>1</sup> Market value excludes \$4,032,944,373 in securities lending collateral for fiscal year 2010.

 $<sup>^2</sup>$  Total Investment & Interest Income excludes net security lending income of \$67,474,992 and unrealized gain of \$275,300,778 for securities lending collateral.

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Actuary's Certification
Summary of Actuarial Assumptions and Methods
Schedule of Active Member Valuation Data
Schedule of Changes in the Retirement Rolls
Prioritized Solvency Test
Analysis of System Experience
Summary of Plan Provisions

## **Actuary's Certification**



Gabriel Roeder Smith & Company Consultants & Actuaries One Towne Square Suite 800 Southfield, MI 48076-3723 248.799.9000 phone 248.799.9020 fax www.gabrielroeder.com

October 21, 2011

Mr. John E. Nixon, Director
 Department of Technology, Management and Budget and
 The Retirement Board
 Michigan Public School Employees' Retirement System
 P.O. Box 30171
 Lansing, Michigan 48909

#### Ladies and Gentlemen:

The basic financial objective of the Michigan Public School Employees' Retirement System (MPSERS) is to establish and receive contributions which when combined with present assets and future investment return will be sufficient to meet the financial obligations of the System to present and future benefit recipients.

The purpose of the September 30, 2010 annual actuarial valuations was to determine the contribution requirements for the fiscal year ending September 30, 2011, to measure the System's funding progress, and to provide actuarial information in connection with applicable Governmental Accounting Standards Board statements. The valuations should not be relied upon for any other purpose. The valuation process develops employer contributions that are sufficient to fund the System's normal cost (i.e., the costs assigned by the valuation method to the year of service about to be rendered), as well as to fund any unfunded accrued liabilities over a reasonable period. The valuation was completed based upon population data, asset data and plan provisions in effect on September 30, 2010.

The valuation was based upon information provided by the System's administrative staff concerning System benefit provisions, financial transactions, and individual members, terminated members, retirees and beneficiaries. We checked the data for internal and year to year consistency, but did not otherwise audit the data. As a result, we do not assume responsibility for the accuracy or completeness of the data provided by the System's administrative staff. The actuary summarizes and tabulates population data in order to analyze long term trends. The System's external auditor audits the actuarial data annually.

Annual actuarial valuations are based upon assumptions regarding future activity in specific risk areas including the rate of investment return and payroll growth, eligibility for the various classes of benefits and longevity among retired lives. These assumptions are adopted by the Board and the Department after considering the advice of the actuary and other professionals. The assumptions and the methods comply with the disclosure requirements of GASB Statement Nos. 25 and 43. Each actuarial valuation takes into account all prior differences between actual and assumed experience in each risk area and adjusts the contribution requirements as needed.

## Actuarial Section

## **Actuary's Certification (continued)**

Mr. John E. Nixon October 21, 2011 Page 2

Our firm provided the following supporting schedules for use in the Comprehensive Annual Financial Report:

#### Financial Section

- Note 1 Table of System's Membership
- Note 3 Summary of Actuarial Assumptions
- Schedules of Funding Progress
- Schedules of Employer Contributions (Annual Required Contribution)

#### Actuarial Section

- Summary of Actuarial Assumptions and Methods
- Percent of Eligible Active Members Retiring Within Next Year
- Separation from Active Employment Before Age and Service Retirement and Individual Pay Increase Assumptions
- Schedule of Active Member Valuation Data
- Schedule of Changes in the Retirement Rolls
- Prioritized Solvency Tests
- Analysis of System Experience

#### Statistical Section

- Schedule of Retired Members by Type of Pension Benefit (Retirement Type and Option)
- Schedule of Retired Members by Type of Health Benefit
- Schedules of Average Benefit Payments Pension, Medical and Dental/Vision

Although our firm provided supporting schedules in connection with GASB Statement Nos. 43 and 45, we recommend consultation with legal counsel and the auditors to determine whether Statement No. 43 applies.

The September 30, 2010 valuations were based upon assumptions that were recommended in connection with a study of System experience covering the period from October 1, 2002 through September 30, 2007. Future actuarial measurements may differ significantly from those presented in the annual valuations due to such factors as experience differing from that anticipated by actuarial assumptions, or changes in plan provisions, actuarial assumption/methods or applicable law. Due to the limited scope of the assignment, we did not perform an analysis of the potential range of future measurements.

Gabriel Roeder Smith & Company

# **Actuary's Certification (continued)**

Mr. John E. Nixon October 21, 2011 Page 3

The signing actuaries are independent of the plan sponsor. The spouse of one of the undersigned is a retiree of the System, but we believe that this circumstance in no way alters the ability of the undersigned to fairly and accurately report the results of the valuation.

The actuarial valuations of MPSERS as of September 30, 2010 were performed by qualified actuaries in accordance with standards of practice prescribed by the Actuarial Standards Board and in compliance with applicable state statutes. The undersigned are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. It is our opinion that the calculated employer contribution meets the financial objective of the Retirement System.

Respectfully submitted,

Curtis Powell, EA, MAAA

Alan Sonnanstine, ASA, MAAA

Alm E. Somanster

CP:AS:mrb

Gabriel Roeder Smith & Company

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

- 1. The investment return rate used in the valuations of the MIP and Basic Pension plans was 8% per year (7% for the Pension Plus plan) net of expenses, compounded annually. This rate of return is not the assumed real rate of return. The real rate of return is the rate of investment return in excess of the inflation rate. Considering other financial assumptions, this investment return rate translates to an assumed long-term real rate of return of 4.5% (3.5% for the Pension Plus plan). Adopted 2004 (2010 for the Pension Plus plan).
- The healthy life mortality table used in evaluating allowances to be paid was the RP-2000 Combined Healthy Mortality Table adjusted for improvements to 2020 using projection scale AA. Adopted 2010
- 3. Sample probabilities of regular, unreduced retirement are shown in Schedule 1 on the next page. Adopted 2010.
- 4. Sample probabilities of withdrawal from service and disability, together with individual pay increase assumptions, are shown in Schedule 2 on the next page of this report. Adopted 2010.
- 5. Total active member payroll is assumed to increase 3.5% per year. This represents the portion of the individual pay increase assumptions attributable to inflation. In effect, this assumes no change in the number of active members. Adopted 2004.
- 6. An individual entry age actuarial cost method of valuation was used in determining age and service and deferred retirement actuarial liabilities and normal cost. Adopted 1975. Unfunded actuarial accrued liabilities, are financed over a declining 40-year period beginning October 1, 1996. Adopted 1996.
- 7. The Department of Technology, Management & Budget approved the use of market value of assets as of September 30, 2006, for valuation purposes. For investment gains and losses that occur after that date, a 5-year smoothing technique will be used. Specifically, the excess (shortfall) of actual investment income (including interest, dividends, realized and unrealized gains or losses) over the imputed-income at the valuation interest rate is considered the gain (loss), which is spread over five years. Adopted 2007.
- 8. The data about persons now covered and about present assets was furnished by the System's administrative staff. Although examined for general reasonableness, the data was not audited by the actuary.
- 9. The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries (MAAA). The assumptions used in the actuarial valuations were adopted by the System's Board and the Department of Technology, Management & Budget after consulting with the actuary.
- 10. A 5-year experience investigation, covering the period from October 1, 2002, through September 30, 2007, was completed in 2010. The purpose of the study was to analyze the actual experience of the System versus that anticipated by actuarial assumptions then in use. Adopted 2010.
- 11. Gabriel Roeder Smith and Co. was awarded the actuarial and consulting services contract beginning October 4, 2006.

## **Summary of Actuarial Assumptions and Methods (continued)**

### **SCHEDULE 1**

Percent of Eligible Active Members Retiring Within Next Year

| Retirement  | ]        | Basic        | MIP <sup>1</sup> and Pe | nsion Plus   | Years of    | 3 mp²            |  |
|-------------|----------|--------------|-------------------------|--------------|-------------|------------------|--|
| Ages        | Teachers | Non-Teachers | Teachers                | Non-Teachers | Service     | MIP <sup>2</sup> |  |
| 55          | 25 %     | 30 %         |                         |              | 30          | 55 %             |  |
| 58          | 16       | 22           |                         |              | 32          | 25               |  |
| 61          | 20       | 21           | 20 %                    | 19 %         | 34          | 23               |  |
| 64          | 23       | 24           | 22                      | 21           | 36          | 26               |  |
| 67          | 24       | 28           | 22                      | 20           | 38          | 29               |  |
| 70          | 21       | 25           | 15                      | 18           | 40          | 33               |  |
| 71          | 21       | 25           | 15                      | 18           | 42          | 33               |  |
| 72          | 21       | 25           | 15                      | 18           | 44          | 33               |  |
| 73          | 21       | 25           | 15                      | 18           | 46          | 33               |  |
| 74          | 21       | 25           | 15                      | 18           | 48          | 33               |  |
| 75 and over | 100      | 100          | 100                     | 100          | 50 and over | 100              |  |

<sup>&</sup>lt;sup>1</sup> Applies to MIP members with fewer than 30 years of service

**SCHEDULE 2** 

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

| Sample | Years of |          | tive Members Wi<br>than \$20,000 | 0        | ithin Next Year<br>than \$20,000 | Percent<br>Becoming Disabled<br>Within | Percent<br>Increase<br>In Pay During |
|--------|----------|----------|----------------------------------|----------|----------------------------------|--|--------------------------------------|
| Ages   | Service  | Teachers | Non-Teachers                     | Teachers | Non-Teachers                     | Next Year                              | Next Year                            |
| All    | 0        | 28.00 %  | 30.00 %                          | 36.00 %  | 37.50 %                          |  |                                      |
|        | 1        | 12.50    | 13.00                            | 22.00    | 22.50                            |  |                                      |
|        | 2        | 7.75     | 8.50                             | 14.50    | 13.50                            |  |                                      |
|        | 3        | 6.20     | 6.80                             | 13.50    | 11.00                            |  |                                      |
|        | 4        | 5.00     | 5.30                             | 12.50    | 9.00                             |  |                                      |
| 25     | 5 & Over | 3.70     | 4.70                             | 12.50    | 9.00                             | .01 %                                  | 12.30 %                              |
| 35     |          | 2.52     | 2.96                             | 11.00    | 6.90                             | .02                                    | 7.20                                 |
| 45     |          | 1.46     | 1.85                             | 7.40     | 4.70                             | .10                                    | 5.20                                 |
| 55     |          | 1.25     | 1.25                             | 6.00     | 4.00                             | .26                                    | 3.80                                 |
| 60     |          | 1.25     | 1.25                             | 6.00     | 4.00                             | .36                                    | 3.50                                 |

<sup>&</sup>lt;sup>2</sup> Applies to MIP members with 30 or more years of service.

# **Actuarial Valuation Data**

Schedule of Active Member Valuation Data

| Valuation<br>Date<br>Sept. 30 | Number  | Reported<br>Annual<br>Payroll* | Average<br>Annual<br>Pay | % Increase | Average<br>Age | Average<br>Service |
|-------------------------------|---------|--------------------------------|--------------------------|------------|----------------|--------------------|
| 2001                          | 318,538 | \$ 9,264,183                   | \$ 29,083                | 1.2 %      | 43.6           | 9.6                |
| 2002                          | 326,350 | 9,707,281                      | 29,745                   | 2.3        | 43.6           | 9.5                |
| 2003                          | 326,938 | 10,043,862                     | 30,721                   | 3.3        | 43.8           | 9.7                |
| 2004                          | 322,494 | 10,407,072                     | 32,271                   | 5.0        | 43.8           | 9.7                |
| 2005                          | 316,151 | 10,205,972                     | 32,282                   | 0.0        | 43.7           | 9.7                |
| 2006                          | 308,233 | 9,806,452                      | 31,815                   | (1.4)      | 44.1           | 9.9                |
| 2007                          | 295,984 | 9,851,471                      | 33,284                   | 4.6        | 44.5           | 10.3               |
| 2008                          | 278,642 | 9,958,132                      | 35,738                   | 7.4        | 44.9           | 10.8               |
| 2009                          | 268,208 | 9,883,674                      | 36,851                   | 3.1        | 45.4           | 11.4               |
| 2010                          | 242,568 | 8,845,019                      | 36,464                   | (1.1)      | 45.2           | 11.1               |

<sup>\*</sup> In thousands of dollars.

# Schedule of Changes in the Retirement Rolls

| Year              | Add    | led to | Rolls              | Remov | ed fr | om Rolls           | Rolls-1 | End       | of Year   | % Increase              | A                    | verage |
|-------------------|--------|--------|--------------------|-------|-------|--------------------|---------|-----------|-----------|-------------------------|----------------------|--------|
| Ended<br>Sept. 30 | No.    |        | Annual<br>owances* | No.   |       | Annual<br>owances* | No.     | No. Alloy |           | in Annual<br>Allowances | Annual<br>Allowances |        |
| 2001              | 8,125  | \$     | 146,907            | 3,450 | \$    | 1,491              | 130,790 | \$        | 1,943,444 | 8.1 %                   | \$                   | 14,859 |
| 2002              | 8,187  |        | 154,958            | 3,700 |       | 4,020              | 135,277 |           | 2,094,382 | 7.8                     |                      | 15,482 |
| 2003**            | 8,512  |        | 163,752            | 3,975 |       | 6,368              | 139,814 |           | 2,251,766 | 7.5                     |                      | 16,105 |
| 2004              | 9,824  |        | 197,680            | 4,260 |       | 17,810             | 145,378 |           | 2,431,636 | 8.0                     |                      | 16,726 |
| 2005              | 10,165 |        | 249,907            | 3,837 |       | 36,843             | 151,706 |           | 2,644,700 | 8.8                     |                      | 17,433 |
| 2006              | 9,853  |        | 248,852            | 4,396 |       | 65,092             | 157,163 |           | 2,828,460 | 6.9                     |                      | 17,997 |
| 2007              | 9,704  |        | 247,807            | 4,023 |       | 63,192             | 162,844 |           | 3,013,075 | 6.5                     |                      | 18,503 |
| 2008              | 9,091  |        | 234,047            | 4,670 |       | 75,861             | 167,265 |           | 3,171,261 | 5.3                     |                      | 18,960 |
| 2009              | 8,817  |        | 239,774            | 4,160 |       | 74,870             | 171,922 |           | 3,336,165 | 5.2                     |                      | 19,405 |
| 2010              | 19,946 |        | 553,900            | 4,146 |       | 75,310             | 187,722 |           | 3,814,755 | 14.3                    |                      | 20,321 |

<sup>\*</sup> In thousands of dollars.

<sup>\*\*</sup> Revised actuarial data.

## **Prioritized Solvency Test**

The System's funding objective is to meet long-term benefit promises through contributions that remain approximately level from year to year as a percent of member payroll. If the contributions to the System are level in concept and soundly executed, the System will pay all promised benefits when due, the ultimate test of financial soundness. Testing for level contribution rates is the long-term solvency test.

A prioritized solvency test is another means of checking a system's progress under its funding program. In a short condition test, the plan's present assets (cash and investments) are compared with: (1) active member contributions on deposit; (2) the liabilities for future benefits to present retired lives; and (3) the liabilities for service already rendered by active and inactive members. In a system that has been following the discipline of level percent of payroll financing, the liabilities for active member contributions on deposit (liability 1) and the liabilities for future benefits to present retired lives (liability 2) will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by active members (liability 3) are normally partially covered by the remainder of present assets. Generally, if the System has been using level-cost financing, the funded portion of liability 3 will increase over time. Liability 3 being fully funded is not necessarily a by-product of level percent of payroll funding methods.

The schedules that follow illustrate the history of the liabilities of the System and are indicative of the System's policy of following the discipline of level percent of payroll financing.

# Pension Benefits (\$ in millions)

|                 |                           | Actuarial Accrued Liability (AAL) |             |                           |                     |        |           |        |                                  |       |                  |        |  |
|-----------------|---------------------------|-----------------------------------|-------------|---------------------------|---------------------|--------|-----------|--------|----------------------------------|-------|------------------|--------|--|
|                 |                           | (1)                               |             | (2)                       | •                   | (3)    |           |        |                                  |       |                  |        |  |
| Valuation       | I                         | Active                            |             | etirants                  | Active and Inactive |        |           |        |                                  |       |                  |        |  |
| Date            | $\mathbf{M}$              | lember                            |             | and                       | Members (Employer   |        | Valuation |        | Portion of AAL Covered by Assets |       |                  |        |  |
| <b>Sept. 30</b> | Sept. 30 Contributions Be |                                   | neficiaries | <b>Financed Portion</b> ) |                     | Assets |           | (1)    | (2)                              | (3)   | (4) <sup>1</sup> |        |  |
| 2001            | \$                        | 3,244                             | \$          | 20,943                    | \$                  | 15,587 | \$        | 38,399 | 100 %                            | 100 % | 91.2 %           | 96.5 % |  |
| 2002            |                           | 3,490                             |             | 22,480                    |                     | 15,987 |           | 38,382 | 100                              | 100   | 77.6             | 91.5   |  |
| 2003            |                           | 3,720                             |             | 24,080                    |                     | 16,969 |           | 38,726 | 100                              | 100   | 64.4             | 86.5   |  |
| 2004            |                           | 3,800                             |             | 26,178                    |                     | 16,339 |           | 38,784 | 100                              | 100   | 53.9             | 83.7   |  |
| 2005            |                           | 3,898                             |             | 28,047                    |                     | 16,261 |           | 38,211 | 100                              | 100   | 38.5             | 79.3   |  |
| 2006            |                           | 4,082                             |             | 29,505                    |                     | 15,549 |           | 39,893 | 100                              | 100   | 40.6             | 81.2   |  |
| $2006^{2}$      |                           | 4,082                             |             | 29,505                    |                     | 15,549 |           | 42,995 | 100                              | 100   | 60.5             | 87.5   |  |
| 2007            |                           | 4,376                             |             | 31,254                    |                     | 15,477 |           | 45,335 | 100                              | 100   | 62.7             | 88.7   |  |
| 2008            |                           | 5,168                             |             | 32,723                    |                     | 15,664 |           | 45,677 | 100                              | 100   | 49.7             | 85.3   |  |
| $2008^{3}$      |                           | 5,168                             |             | 32,723                    |                     | 16,717 |           | 45,677 | 100                              | 100   | 46.6             | 83.6   |  |
| 2009            |                           | 5,449                             |             | 34,159                    |                     | 17,077 |           | 44,703 | 100                              | 100   | 29.8             | 78.9   |  |
| 2010            |                           | 5,055                             |             | 38,315                    |                     | 15,173 |           | 43,294 | 100                              | 99.8  | 0.0              | 74.0   |  |
| $2010^{-2}$     |                           | 5,055                             |             | 38,589                    |                     | 16,233 |           | 43,294 | 100                              | 99.1  | 0.0              | 72.3   |  |
| $2010^{3}$      |                           | 5,055                             |             | 39,639                    |                     | 16,233 |           | 43,294 | 100                              | 96.5  | 0.0              | 71.1   |  |

<sup>&</sup>lt;sup>1</sup> Percents funded on a total valuation asset and total actuarial accrued liability basis.

<sup>&</sup>lt;sup>2</sup> Revised asset valuation method.

<sup>&</sup>lt;sup>3</sup> Revised benefit provisions.

# **Prioritized Solvency Test (continued)**

# Other Postemployment Benefits (\$ in millions)

|           |        | Actua   | uarial Accrued Liability (AAL) |             |   |             |     |        |      |            |            |                  |
|-----------|--------|---------|--------------------------------|-------------|---|-------------|-----|--------|------|------------|------------|------------------|
|           | (      | 1)      |                                | (2)         | (3) Active and Inactive Members (Employer |             |     |        |      |            |            |                  |
| Valuation | Ac     | tive    | R                              | etirants    |   |             |     |        |      |            |            |                  |
| Date      | Mei    | nber    |                                | and         |   |             | Val | uation | Port | ion of AAL | Covered by | vered by Assets  |
| Sept. 30  | Contri | butions | Ber                            | neficiaries | Financ                                    | ed Portion) | A   | ssets  | (1)  | (2)        | (3)        | (4) <sup>1</sup> |
| 2007      | \$     | _       | \$                             | 13,977      | \$  | 11,755      | \$  | 776    | 0 %  | 5.6 %      | 0 %        | 3.0%             |
| 2008      |        | -       |                                | 14,553      |   | 12,258      |     | 832    | 0    | 5.7        | 0          | 3.1              |
| 2009      |        | -       |                                | 13,805      |   | 14,490      |     | 713    | 0    | 5.2        | 0          | 2.5              |
| 2010      |        | -       |                                | 15,591      |   | 13,036      |     | 999    | 0    | 6.4        | 0          | 3.5              |

 $<sup>^{\</sup>rm 1}$  Percents funded on a total valuation asset and total actuarial accrued liability basis.

# **Analysis of System Experience**

# Gains/(Losses) in Accrued Liabilities During Year Ended September 30, 2010 Resulting from Differences Between Assumed Experience & Actual Experience

|    | Type of Activity   | Gain/(Loss)        |
|----|--|--------------------|
| 1. | <b>Retirements</b> (including Disability Retirement). If members retire at older ages or with lower final average pay than assumed, there is a gain. If younger ages or higher average pays, a loss. | \$ (19,645,766)    |
| 2. | <b>Withdrawal From Employment</b> (including death-in-service). If more liabilities are released by withdrawals and deaths than assumed, there is a gain. If smaller releases, a loss.               | (528,385)          |
| 3. | <b>Pay Increases.</b> If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.  | 114,123,581        |
| 4. | <b>Investment Income.</b> If there is greater investment income than assumed, there is a gain. If less income, a loss.   | (2,718,208,285)    |
| 5. | <b>Death After Retirement</b> . If retirants live longer than assumed, there is a loss. If not as long, a gain.  | (259,583,254)      |
| 6. | <b>New entrants/Rehires.</b> New entrants into the System will generally result in an actuarial loss.  | (60,048,594)       |
| 7. | <b>Other.</b> Miscellaneous gains and losses resulting from data adjustments, timing of financial transactions, etc.   | 216,498,446        |
| 8. | Composite Gain (or Loss) During Year   | \$ (2,727,392,257) |

## **Summary of Plan Provisions**

Our actuarial valuation of the System as of September 30, 2010, is based on the present provisions of the Michigan Public School Employees' Retirement Act (Public Act 300 of 1980, as amended).

### Regular Retirement (no reduction factor for age)

<u>Eligibility</u> - Age 55 with 30 years credited service; or age 60 with 10 years credited service. For Member Investment Plan (MIP) members, any age with 30 years credited service; or age 60 with 10 years credited service; or age 60 with 5 years of credited service provided member worked through 60th birthday and has credited service in each of the last 5 years.

Mandatory Retirement Age - None.

Annual Amount - Total credited service times 1.5% of final average compensation.

<u>Final Average Compensation</u> - Average of highest 5 consecutive years (3 years for MIP members).

#### Early Retirement (age reduction factor used)

Eligibility - Age 55 with 15 or more years credited service and earned credited service in each of the last 5 years.

Annual Amount - Regular retirement benefit, reduced by 0.5% for each month by which the commencement age is less than 60.

### Deferred Retirement (vested benefit)

Eligibility - 10 years of credited service. Benefit commences at the time age qualification is met.

Annual Amount - Regular retirement benefit based on service and final average compensation at time of termination.

### **Duty Disability Retirement**

Eligibility - No age or service requirement; in receipt of workers' disability compensation.

<u>Annual Amount</u> - Computed as regular retirement benefit with minimum benefit based on 10 years credited service. Additional limitation such that disability benefits plus authorized outside earnings limited to 100% of final average compensation (increased by 2% each year retired).

### Non-Duty Disability Retirement

Eligibility - 10 years of credited service.

<u>Annual Amount</u> - Computed as regular retirement benefit based on credited service and final average compensation at time of disability. Additional limitation such that disability benefits plus authorized outside earnings limited to 100% of final average compensation (increased by 2% each year retired).

### **Duty Death Before Retirement**

<u>Eligibility</u> - No age or service requirement. Beneficiary is in receipt of workers' compensation. Also applies to "duty disability" retirees during first three years of disability.

<u>Annual Amount</u> - Spouse benefit computed as regular retirement benefit with minimum benefit based on ten years of credited service, reduced for 100% joint and survivor election. If no surviving spouse, children under 18 share in benefit; if no spouse or children, a disabled and dependent parent is eligible.

## **Summary of Plan Provisions (continued)**

### Non-Duty Death Before Retirement

<u>Eligibility</u> - 15 years of credited service, or age 60 and 10 years of credited service. 10 years of credited service, or age 60 and 5 years of credited service for MIP members.

<u>Annual Amount</u> - Computed as regular retirement benefit, reduced in accordance with a 100% joint and survivor election, with payments commencing first of month following death. For the beneficiary of a deferred member, benefit commences at the time a member would have attained the minimum age qualification.

### Post-Retirement Cost-of-Living Adjustments

One-time upward adjustments have been made in 1972, 1974, 1976 and 1977 for members retired on or after July 1, 1956, and prior to July 1, 1976, who were eligible for Social Security benefits. For members who retired prior to July 1, 1956, and not eligible for Social Security benefits based upon membership service, the minimum base pension was increased in 1965, 1971, 1972, 1974 and 1981, and in 1976 and 1977 one-time upward adjustments were made.

Beginning in 1983, eligible recipients received an annual distribution of investment earnings in excess of 8% (supplemental payment). On January 1, 1986, all members who retired prior to January 1, 1986, were given a permanent 8% increase. On January 1, 1990, a one-time upward adjustment for members who retired prior to October 1, 1981, was made.

Currently members receive annual increases based on the following schedule:

Retired before January 1, 1987 - Greater of Supplemental payment or automatic 3% increase Retired on or after January 1, 1987 under MIP - Automatic 3% increase only Retired on or after January 1, 1987 not under MIP - Supplemental payment only

### Post-Retirement Health Benefits

Members in receipt of pension benefits are eligible for fully System paid Master Health Care Plan coverage (90% System paid Dental Plan, Vision Plan and Hearing Plan coverage) with the following exceptions:

- 1. Members not yet eligible for Medicare coverage pay an amount equal to the Medicare Part B premiums.
- 2. Members with less than 30 years of service, who terminate employment after October 31, 1980, with vested deferred benefits, are eligible for partially System paid health benefit coverage (no System payment if less than 21 years of service).

Dependents are eligible for 90% System paid health benefit coverage (partial System payment for dependents of deferred vested members who had 21 or more years of service).

### **Member Contributions**

<u>Basic Participants</u> – None.

MIP Participants hired before January 1, 1990 - 3.9% of pay.

MIP Participants hired on or after January 1, 1990 and before July 1, 2008 - 3.0% of first \$5,000 of pay, plus 3.6% of next \$10,000 of pay, plus 4.3% pay in excess of \$15,000.

MIP and PPP Participants hired on or after July 1, 2008 - 3.0% of first \$5,000 of pay, plus 3.6% of next \$10,000 of pay, plus 6.4% pay in excess of \$15,000.

Schedules of Additions by Source
Schedules of Deductions by Type
Schedules of Changes in Net Assets
Schedules of Benefits and Refunds by Type
Schedules of Retired Members by Type of Benefit
Schedule of Other Postemployment Benefits
Schedules of Average Benefit Payments
Schedule of Principal Participating Employers
Ten Year History of Membership
Schedule of Participating Employers

This part of the System's comprehensive annual financial report presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information says about the System's overall financial health.

#### **Contents**

### Financial Trends

These schedules contain trend information to help the reader understand how the System's financial performance and fiscal health has changed over time. The schedules are presented for the last ten fiscal years. Schedules included are:

- Schedule of Pension Plan Additions by Source
- Schedule of OPEB Plan Additions by Source
- Schedule of Pension Plan Deductions by Type
- Schedule of OPEB Plan Deductions by Type
- Schedule of Changes in Net Assets Pension Plan
- Schedule of Changes in Net Assets OPEB Plan
- Schedule of Pension Benefit and Refunds by Type
- Schedule of OPEB Benefits and Refunds by Type

### **Operating Information**

These schedules contain contextual information to assist the reader's understanding of how the System's financial information relates to the combination of participating members and the benefits it provides. Schedules are presented for the last ten fiscal years, except where noted. Schedules included are:

- Schedule of Retired Members by Type of Pension Benefit
- Schedule of Retired Members by Type of Other Postemployment Benefits
- Schedule of Other Postemployment Benefits
- Schedule of Average Benefit Payments Pension
- Schedule of Average Benefit Payments Health
- Schedule of Average Benefit Payments Dental/Vision
- Schedule of Principal Participating Employers
- Ten Year History of Membership
- Schedule of Participating Employers

### Schedule of Pension Plan Additions by Source

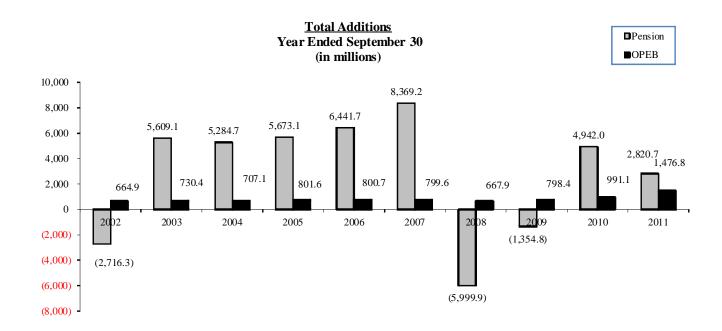
Last Ten Years

| Fiscal Year        |                         |             |         | Employer C    | ontributions                   |                                     |                       |
|--------------------|-------------------------|-------------|---------|---------------|--------------------------------|-------------------------------------|-----------------------|
| En ded<br>Sept. 30 | Member<br>Contributions |             | Dollars |               | % of Annual<br>Covered Payroll | <br>et Investment &<br>Other Income | <br>Total             |
| 2002               | \$                      | 413,163,871 | \$      | 603,949,327   | 6.22 %                         | \$<br>(3,733,441,844)               | \$<br>(2,716,328,646) |
| 2003               |                         | 379,084,549 |         | 697,906,265   | 6.95                           | 4,532,071,835                       | 5,609,062,649         |
| 2004               |                         | 456,352,606 |         | 697,647,338   | 6.70                           | 4,130,661,746                       | 5,284,661,690         |
| 2005               |                         | 368,240,837 |         | 774,277,778   | 7.59                           | 4,530,621,088                       | 5,673,139,703         |
| 2006               |                         | 518,599,720 |         | 995,932,425   | 10.15                          | 4,927,180,143                       | 6,441,712,288         |
| 2007               |                         | 356,761,212 |         | 835,366,382   | 8.48                           | 7,177,120,534                       | 8,369,248,128         |
| 2008               |                         | 399,256,616 |         | 999,374,879   | 10.04                          | (7,398,546,831)                     | (5,999,915,336)       |
| 2009               |                         | 357,249,466 |         | 1,000,375,355 | 10.12                          | (2,712,414,549)                     | (1,354,789,728)       |
| 2010               |                         | 377,748,755 |         | 1,001,251,673 | 11.32                          | 3,563,042,464                       | 4,942,042,892         |
| 2011               |                         | 332,209,134 |         | 1,156,060,903 | N/A                            | 1,332,452,213                       | 2,820,722,250         |

### **Schedule of OPEB Plan Additions by Source**

Last Ten Years

| Fiscal Year        |          |                         |    | Employer C  | ontributions                   |                                  |              |                   |
|--------------------|----------|-------------------------|----|-------------|--------------------------------|----------------------------------|--------------|-------------------|
| En ded<br>Sept. 30 | <u> </u> | Member<br>Contributions |    | Dollars     | % of Annual<br>Covered Payroll | Net Investment &<br>Other Income |              | Total             |
| 2002               | \$       | 43,217,520              | \$ | 604,628,018 | 6.23 %                         | \$                               | 17,043,097   | \$<br>664,888,635 |
| 2003               |          | 47,394,003              |    | 657,408,261 | 6.55                           |                                  | 25,584,076   | 730,386,340       |
| 2004               |          | 52,765,881              |    | 618,831,102 | 5.95                           |                                  | 35,482,578   | 707,079,561       |
| 2005               |          | 62,507,616              |    | 700,366,743 | 6.86                           |                                  | 38,718,254   | 801,592,613       |
| 2006               |          | 71,813,553              |    | 686,929,558 | 7.00                           |                                  | 41,974,561   | 800,717,672       |
| 2007               |          | 77,206,778              |    | 671,680,400 | 6.85                           |                                  | 50,740,885   | 799,628,063       |
| 2008               |          | 78,088,861              |    | 649,571,071 | 6.52                           |                                  | (59,710,277) | 667,949,655       |
| 2009               |          | 77,034,085              |    | 705,464,357 | 7.14                           |                                  | 15,917,554   | 798,415,996       |
| 2010               |          | 125,160,304             |    | 675,117,153 | 7.63                           |                                  | 190,860,064  | 991,137,521       |
| 2011               |          | 384,978,107             |    | 794,839,611 | N/A                            |                                  | 297,025,962  | 1,476,843,680     |



## Schedule of Pension Plan Deductions by Type

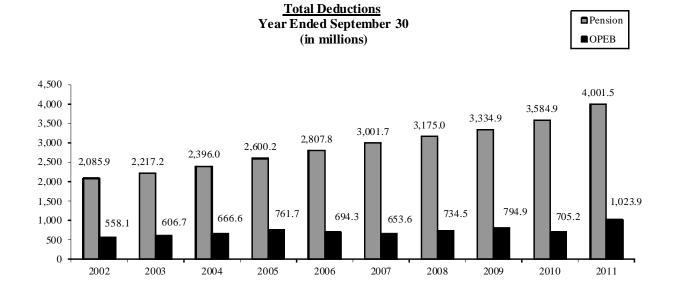
**Last Ten Years** 

| Fiscal Year<br>Ended<br>Sept. 30 | Benefit<br>Payments |               |    |            | <br>ministrative<br>Expenses | Total               |
|----------------------------------|---------------------|---------------|----|------------|------------------------------|---------------------|
| 2002                             | \$                  | 2,041,439,863 | \$ | 20,813,845 | \$<br>23,610,482             | \$<br>2,085,864,190 |
| 2003                             |                     | 2,180,574,193 |    | 13,642,300 | 23,016,963                   | 2,217,233,456       |
| 2004                             |                     | 2,358,216,073 |    | 18,422,941 | 19,374,673                   | 2,396,013,687       |
| 2005                             |                     | 2,558,017,710 |    | 22,181,312 | 19,997,954                   | 2,600,196,976       |
| 2006                             |                     | 2,761,292,217 |    | 24,026,881 | 22,501,098                   | 2,807,820,196       |
| 2007                             |                     | 2,944,920,179 |    | 32,247,524 | 24,489,202                   | 3,001,656,905       |
| 2008                             |                     | 3,117,434,847 |    | 32,803,284 | 24,740,628                   | 3,174,978,759       |
| 2009                             |                     | 3,278,118,116 |    | 33,958,382 | 22,793,011                   | 3,334,869,509       |
| 2010                             |                     | 3,525,020,341 |    | 33,923,570 | 26,000,699                   | 3,584,944,610       |
| 2011                             |                     | 3,942,027,101 |    | 36,591,206 | 22,926,393                   | 4,001,544,700       |

### Schedule of OPEB Plan Deductions by Type

**Last Ten Years** 

| Fiscal Year<br>Ended<br>Sept. 30 | Benefit<br>Payments |             | Refunds<br>and Transfers |         | <br>ministrative<br>Expenses | Total |               |  |
|----------------------------------|---------------------|-------------|--------------------------|---------|------------------------------|-------|---------------|--|
| 2002                             | \$                  | 513,171,821 | \$                       | 67,115  | \$<br>44,853,969             | \$    | 558,092,905   |  |
| 2003                             |                     | 558,682,921 |                          | 64,411  | 47,907,745                   |       | 606,655,077   |  |
| 2004                             |                     | 615,416,903 |                          | 97,849  | 51,118,851                   |       | 666,633,603   |  |
| 2005                             |                     | 705,983,783 |                          | 192,144 | 55,520,031                   |       | 761,695,958   |  |
| 2006                             |                     | 634,811,847 |                          | 42,370  | 59,459,690                   |       | 694,313,907   |  |
| 2007                             |                     | 590,226,465 |                          | 30,580  | 63,315,419                   |       | 653,572,464   |  |
| 2008                             |                     | 666,380,643 |                          | 41,786  | 68,078,508                   |       | 734,500,937   |  |
| 2009                             |                     | 726,235,152 |                          | 63,247  | 68,551,804                   |       | 794,850,203   |  |
| 2010                             |                     | 650,677,457 |                          | 52,545  | 54,431,010                   |       | 705,161,012   |  |
| 2011                             |                     | 910,023,134 |                          | 39,133  | 113,790,777                  |       | 1,023,853,044 |  |



### Schedule of Changes in Net Assets - Pension Plan

**Last Ten Years** 

(in thousands)

|                                    | Fiscal Year    |              |              |              |              |              |                |                |              |                |  |
|------------------------------------|----------------|--------------|--------------|--------------|--------------|--------------|----------------|----------------|--------------|----------------|--|
|                                    | 2002           | 2003         | 2004         | 2005         | 2006         | 2007         | 2008           | 2009           | 2010         | 2011           |  |
| Member contributions               | \$ 413,164     | \$ 379,085   | \$ 456,353   | \$ 368,241   | \$ 518,600   | \$ 356,761   | \$ 399,257     | \$ 357,249     | \$ 377,749   | \$ 332,209     |  |
| Employer contributions             | 603,949        | 697,906      | 697,647      | 774,277      | 995,932      | 835,366      | 999,375        | 1,000,375      | 1,001,252    | 1,156,061      |  |
| Net investment income              | (3,733,567)    | 4,532,030    | 4,130,610    | 4,530,600    | 4,926,708    | 7,174,561    | (7,399,527)    | (2,712,841)    | 3,562,452    | 1,331,744      |  |
| Transfer from other systems        |                |              | 20           | 15           | 3            | 6            | 83             | 15             | 16           | 5              |  |
| Miscellaneous income               | 125            | 42           | 32           | 7            | 469          | 2,553        | 897            | 412            | 574          | 704            |  |
| Total Additions                    | (2,716,329)    | 5,609,063    | 5,284,662    | 5,673,140    | 6,441,712    | 8,369,247    | (5,999,915)    | (1,354,790)    | 4,942,042    | 2,820,722      |  |
| Pension benefits Refunds of member | 2,041,440      | 2,180,574    | 2,358,216    | 2,558,018    | 2,761,292    | 2,944,920    | 3,117,435      | 3,278,118      | 3,525,020    | 3,942,027      |  |
| contributions                      | 20,814         | 13,642       | 18,397       | 22,062       | 23,904       | 32,142       | 32,613         | 33,865         | 33,873       | 36,591         |  |
| Tranfer to other systems           | 20,01          | 10,0.2       | 26           | 119          | 123          | 106          | 190            | 93             | 50           | 2              |  |
| Administrative expenses            | 23,610         | 23,017       | 19,375       | 19,998       | 22,501       | 24,489       | 24,741         | 22,793         | 26,001       | 22,926         |  |
| Total Deductions                   | 2,085,864      | 2,217,233    | 2,396,014    | 2,600,197    | 2,807,820    | 3,001,657    | 3,174,979      | 3,334,869      | 3,584,945    | 4,001,547      |  |
| Changes in net assets              | \$ (4,802,193) | \$ 3,391,830 | \$ 2,888,648 | \$ 3,072,943 | \$ 3,633,892 | \$ 5,367,590 | \$ (9,174,894) | \$ (4,689,659) | \$ 1,357,098 | \$ (1,180,824) |  |

## Schedule of Changes in Net Assets - OPEB Plan

**Last Ten Years** 

(in thousands)

|  | Fiscal Year |                   |    |                   |    |                   |    |                   |    |                   |                         |                         |                         |                                    |                                     |
|--|-------------|-------------------|----|-------------------|----|-------------------|----|-------------------|----|-------------------|-------------------------|-------------------------|-------------------------|------------------------------------|-------------------------------------|
|  |             | 2002              |    | 2003              |    | 2004              |    | 2005              |    | 2006              | 2007                    | 2008                    | 2009                    | <br>2010                           | 2011                                |
| Member contributions Employer contributions Other governmental contributions | \$          | 43,218<br>604,628 | \$ | 47,394<br>657,409 | \$ | 52,766<br>618,831 | \$ | 62,508<br>700,366 | \$ | 71,814<br>686,929 | \$<br>77,207<br>671,680 | \$<br>78,089<br>649,571 | \$<br>77,034<br>705,465 | \$<br>125,160<br>675,117<br>39,980 | \$<br>384,978<br>794,840<br>163,949 |
| Net investment income<br>Miscellaneous income                                |             | 17,040<br>3       |    | 25,584            |    | 35,483            |    | 38,718            |    | 41,910            | <br>50,417<br>261       | (60,190)<br>378         | <br>15,706<br>156       | 150,686<br>195                     | 132,993<br>85                       |
| Total Additions  |             | 664,889           |    | 730,387           |    | 707,080           |    | 801,592           |    | 800,718           | <br>799,628             | <br>667,950             | <br>798,416             | 991,138                            | 1,476,844                           |
| Health care benefits<br>Refunds of member                                    |             | 513,172           |    | 558,683           |    | 615,417           |    | 705,983           |    | 634,812           | 590,226                 | 666,381                 | 726,235                 | 650,677                            | 910,023                             |
| contributions  |             | 67                |    | 64                |    | 98                |    | 192               |    | 42                | 31                      | 42                      | 63                      | 53                                 | 39                                  |
| Administrative expenses  |             | 44,854            |    | 47,908            |    | 51,119            |    | 55,520            |    | 59,460            | <br>63,315              | <br>68,078              | <br>68,552              | 54,431                             | 113,791                             |
| Total Deductions   |             | 558,093           |    | 606,655           |    | 666,634           |    | 761,695           |    | 694,314           | 653,572                 | 734,501                 | 794,850                 | 705,161                            | 1,023,853                           |
| Changes in net assets  | \$          | 106,796           | \$ | 123,732           | \$ | 40,446            | \$ | 39,897            | \$ | 106,404           | \$<br>146,056           | \$<br>(66,551)          | \$<br>3,566             | \$<br>285,977                      | \$<br>452,991                       |

### Schedule of Pension Benefits and Refunds by Type

**Last Ten Years** 

| Fiscal Year       |                      |                        |                      |             |                       | Refunds    |          |           |          |            |                     |      |                     |
|-------------------|----------------------|------------------------|----------------------|-------------|-----------------------|------------|----------|-----------|----------|------------|---------------------|------|---------------------|
| Ended<br>Sept. 30 | Regular<br>Benefits* | Disability<br>Benefits | Survivor<br>Benefits |             | Supplemental<br>Check |            | Employer |           | Employee |            | Retired<br>Benefits |      | <br>Total           |
| 2002              | \$<br>1,976,611,796  | \$<br>48,253,882       |                      |             | \$                    | 16,574,185 | \$       | 6,215,939 | \$       | 14,597,906 |                     |      | \$<br>2,062,253,708 |
| 2003              | 2,115,423,232        | 51,351,620             |                      |             |                       |            |          | 2,543,597 |          | 11,098,605 | \$                  | 98   | 2,180,417,152       |
| 2004              | 2,304,740,438        | 53,475,635             |                      |             |                       |            |          | 518,392   |          | 17,878,574 |                     | 48   | 2,376,613,087       |
| 2005              | 2,500,815,986        | 57,201,724             |                      |             |                       |            |          | 685,592   |          | 21,376,126 |                     |      | 2,580,079,428       |
| 2006              | 2,573,912,214        | 52,500,929             | \$                   | 134,879,074 |                       |            |          | 474,347   |          | 23,422,647 | 6,                  | ,828 | 2,785,196,039       |
| 2007              | 2,717,579,495        | 53,505,192             |                      | 173,835,492 |                       |            |          | 580,684   |          | 31,547,480 | 13,                 | ,788 | 2,977,062,131       |
| 2008              | 2,876,064,246        | 54,989,520             |                      | 186,381,081 |                       |            |          | 672,583   |          | 31,917,227 | 23,                 | ,117 | 3,150,047,774       |
| 2009              | 3,022,567,501        | 56,243,731             |                      | 199,306,884 |                       |            |          | 383,851   |          | 33,469,331 | 11,                 | 792  | 3,311,983,090       |
| 2010              | 3,254,752,971        | 58,015,212             |                      | 212,252,158 |                       |            |          | 507,347   |          | 33,364,256 | 1,                  | 755  | 3,558,893,699       |
| 2011              | 3,655,588,461        | 60,232,300             |                      | 226,200,505 |                       |            |          | 1,311,729 |          | 35,249,374 | 29,                 | ,934 | 3,978,612,303       |

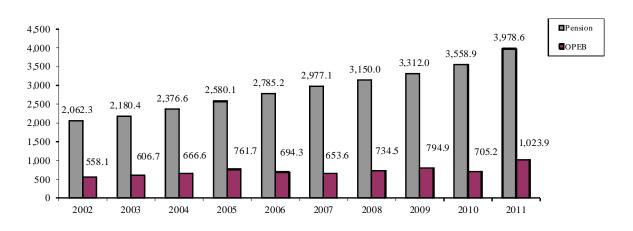
<sup>\*</sup>Includes prior post retirement adjustments

### Schedule of OPEB Benefits and Refunds by Type

**Last Ten Years** 

| Fiscal Year<br>Ended<br>Sept. 30 | OPEB<br>Benefits |             | D  | Dental/Vision<br>Benefits |    | lministrative<br>Expenses | <br>OPEB<br>Refunds | Total             |
|----------------------------------|------------------|-------------|----|---------------------------|----|---------------------------|---------------------|-------------------|
| 2002                             | \$               | 460,578,779 | \$ | 52,593,042                | \$ | 44,853,969                | \$<br>67,115        | \$<br>558,092,905 |
| 2003                             |                  | 501,566,419 |    | 57,116,502                |    | 47,907,745                | 64,411              | 606,655,077       |
| 2004                             |                  | 554,472,234 |    | 60,944,669                |    | 51,118,851                | 97,849              | 666,633,603       |
| 2005                             |                  | 641,616,478 |    | 64,367,305                |    | 55,520,031                | 192,144             | 761,695,958       |
| 2006                             |                  | 565,261,409 |    | 69,550,438                |    | 59,459,690                | 42,370              | 694,313,907       |
| 2007                             |                  | 521,420,684 |    | 68,805,781                |    | 63,315,419                | 30,580              | 653,572,464       |
| 2008                             |                  | 588,064,545 |    | 78,316,098                |    | 68,078,508                | 41,786              | 734,500,937       |
| 2009                             |                  | 644,811,396 |    | 81,423,756                |    | 68,551,804                | 63,247              | 794,850,203       |
| 2010                             |                  | 566,550,299 |    | 84,127,158                |    | 54,431,010                | 52,545              | 705,161,012       |
| 2011                             |                  | 815,311,950 |    | 94,711,184                |    | 113,790,777               | 39,133              | 1,023,853,044     |

# Total Benefit Deductions Year Ended September 30 (in millions)



### Schedule of Retired Members by Type of Pension Benefit

**September 30, 2010** 

| Amount of       | _         | Type of Retirement * |        |     |       |     |       | Selected Option** |        |        |        |          |  |
|-----------------|-----------|----------------------|--------|-----|-------|-----|-------|-------------------|--------|--------|--------|----------|--|
| Monthly         | Number of |                      |        |     |       |     |       |                   |        |        |        | Opt.1E   |  |
| Pension Benefit | Retirees  | 1                    | 2      | 3   | 4     | _5_ | 6     | Opt. 1            | Opt. 2 | Opt. 3 | Opt. 4 | 2E,3E,4E |  |
| \$ 1 - 200      | 13,426    | 11,730               | 1,062  | 101 | 368   | 2   | 163   | 7,476             | 2,864  | 1,948  | 160    | 978      |  |
| 201 - 400       | 20,987    | 17,716               | 1,467  | 124 | 1,298 | 1   | 381   | 11,660            | 4,089  | 3,583  | 366    | 1,289    |  |
| 401 - 600       | 15,874    | 13,024               | 1,185  | 95  | 1,169 | 1   | 400   | 8,307             | 3,256  | 2,965  | 369    | 977      |  |
| 601 - 800       | 12,398    | 10,138               | 894    | 49  | 913   | 2   | 402   | 6,169             | 2,502  | 2,482  | 359    | 886      |  |
| 801 - 1000      | 10,283    | 8,388                | 832    | 35  | 662   |     | 366   | 4,904             | 2,046  | 2,103  | 358    | 872      |  |
| 1001 - 1200     | 8,967     | 7,386                | 755    | 19  | 504   |     | 303   | 4,042             | 1,875  | 1,760  | 310    | 980      |  |
| 1201 - 1400     | 8,123     | 6,715                | 732    | 15  | 405   |     | 256   | 3,375             | 1,691  | 1,527  | 325    | 1,205    |  |
| 1401 - 1600     | 7,723     | 6,586                | 621    | 6   | 283   |     | 227   | 2,939             | 1,594  | 1,381  | 324    | 1,485    |  |
| 1601 - 1800     | 7,478     | 6,547                | 479    | 3   | 266   | 1   | 182   | 2,774             | 1,537  | 1,255  | 347    | 1,565    |  |
| 1801 - 2000     | 7,761     | 6,921                | 459    | 4   | 206   |     | 171   | 2,785             | 1,760  | 1,268  | 361    | 1,587    |  |
| over 2000       | 74,702    | 71,598               | 2,009  | 10  | 412   | 1   | 672   | 32,184            | 14,417 | 15,594 | 5,444  | 7,063    |  |
|                 |           |                      |        |     |       |     |       |                   |        |        |        |          |  |
| Totals          | 187,722   | 166,749              | 10,495 | 461 | 6,486 | 8   | 3,523 | 86,615            | 37,631 | 35,866 | 8,723  | 18,887   |  |

### \* Type of Retirement

- 1 Normal retirement for age & service
- 2 Survivor payment normal retirement
- 3 Duty disability retirement (including survivors)
- 4 Non-duty disability retirement (including survivors)
- 5 Survivor payment duty death in service
- 6 Survivor payment non-duty death in service

#### \*\*Selected Option

- Opt. 1. Straight life allowance
- Opt. 2 100% survivor option
- Opt. 3 50% survivor option
- Opt. 4 75% survivor option
- Opt. 1E, 2E, 3E, 4E Equated retirement plans

Source: Gabriel Roeder Smith & Co.

## **Schedule of Retired Members by Type of Other Postemployment Benefits**

**September 30, 2010** 

**Type of Other Postemployment Benefits** 

| Amount of<br>Monthly<br>Pension Benefit | Eligible<br>Retirees | Health  | Dental/Vision |
|---|----------------------|---------|---------------|
|   |                      |         |               |
| \$ 1 - 200                              | 13,426               | 6,966   | 8,001         |
| 201 - 400                               | 20,987               | 12,343  | 13,970        |
| 401 - 600                               | 15,874               | 10,510  | 11,632        |
| 601 - 800                               | 12,398               | 8,868   | 9,698         |
| 801 - 1,000                             | 10,283               | 7,657   | 8,241         |
| 1,001 - 1,200                           | 8,967                | 6,891   | 7,352         |
| 1,201 - 1,400                           | 8,123                | 6,447   | 6,834         |
| 1,401 - 1,600                           | 7,723                | 6,202   | 6,561         |
| 1,601 - 1,800                           | 7,478                | 6,133   | 6,438         |
| 1,801 - 2,000                           | 7,761                | 6,345   | 6,701         |
| Over 2,000                              | 74,702               | 62,409  | 64,924        |
| Totals                                  | 187,722              | 140,771 | 150,352       |

Source: Gabriel Roeder Smith & Co.

## **Schedule of Other Postemployement Benefits**

For Years Ended September 30, 2011 and 2010

|   | 2011             | 2010           |
|---|------------------|----------------|
| Claims                                  |                  |                |
| Health insurance                        | \$ 623,120,018   | \$ 501,455,398 |
| Vision insurance                        | 7,752,289        | 7,116,639      |
| Dental insurance                        | 84,800,032       | 74,676,013     |
| Total Claims                            | 715,672,339      | 583,248,050    |
| <b>Estimated Claims Liability</b>       |                  |                |
| Health insurance                        | 192,191,932      | 65,094,901     |
| Vision insurance                        |                  |                |
| Dental insurance                        | 2,158,863        | 2,334,506      |
| <b>Total Estimated Claims Liability</b> | 194,350,795      | 67,429,407     |
| Administrative Fees                     |                  |                |
| Health insurance                        | 108,753,107      | 50,000,427     |
| Dental/Vision insurance                 | 5,037,670        | 4,430,583      |
| <b>Total Administrative Fees</b>        | 113,790,777      | 54,431,010     |
| Subtotal                                | 1,023,813,911    | 705,108,467    |
| Refunds                                 | 39,133           | 52,545         |
| Grand Total                             | \$ 1,023,853,044 | \$ 705,161,012 |

# Schedule of Average Benefit Payments - Pension Last Ten Years

| Last Ten Years               |   |        |         |         |          |         |          |    |         |  |  |
|------------------------------|---|--------|---------|---------|----------|---------|----------|----|---------|--|--|
|                              | Credited Service (Years) as of September 30 |        |         |         |          |         |          |    |         |  |  |
| Payment Periods              | 0.5   | 5 10   | 10 15   | 15 20   | 20, 25   | 25 20   | 20.      |    | TF-4-1  |  |  |
|                              | 0 - 5                                       | 5 - 10 | 10 - 15 | 15 - 20 | 20 - 25  | 25 - 30 | 30+      |    | Total   |  |  |
| Period 10/1/00 to 9/30/01    |   |        |         |         |          |         |          |    |         |  |  |
| Average Monthly Benefit      | \$ 500                                      | \$ 154 | \$ 268  | \$ 483  | \$ 793   | \$1,201 | \$ 2,092 | \$ | 1,238   |  |  |
| Average Final Average Salary | 2,492                                       | 15,236 | 14,669  | 19,730  | 25,420   | 30,751  | 45,564   |    | 31,613  |  |  |
| Number of Active Retirants   | 814   | 3,783  | 16,842  | 20,543  | 19,844   | 15,128  | 53,836   |    | 130,790 |  |  |
| Period 10/1/01 to 9/30/02    |   |        |         |         |          |         |          |    |         |  |  |
| Average Monthly Benefit      | \$ 527                                      | \$ 154 | \$ 272  | \$ 495  | \$ 815   | \$1,237 | \$ 2,166 | \$ | 1,290   |  |  |
| Average Final Average Salary | 2,171                                       | 15,438 | 15,160  | 20,407  | 26,097   | 31,542  | 47,124   |    | 32,795  |  |  |
| Number of Active Retirants   | 934   | 3,951  | 17,068  | 20,977  | 20,201   | 15,427  | 56,719   |    | 135,277 |  |  |
| Period 10/1/02 to 9/30/03    |   |        |         |         |          |         |          |    |         |  |  |
| Average Monthly Benefit      | \$ 543                                      | \$ 159 | \$ 280  | \$ 510  | \$ 837   | \$1,273 | \$ 2,232 | \$ | 1,342   |  |  |
| Average Final Average Salary | 2,225                                       | 15,789 | 15,635  | 21,059  | 26,790   | 32,349  | 48,604   | ·  | 34,014  |  |  |
| Number of Active Retirants   | 896   | 4,139  | 17,285  | 21,404  | 20,533   | 15,698  | 59,859   |    | 139,814 |  |  |
| Period 10/1/03 to 9/30/04    |   |        |         |         |          |         |          |    |         |  |  |
| Average Monthly Benefit      | \$ 607                                      | \$ 181 | \$ 309  | \$ 514  | \$ 881   | \$1,238 | \$ 2,288 | \$ | 1,394   |  |  |
| Average Final Average Salary | 1,640                                       | 16,138 | 16,357  | 21,257  | 27,798   | 32,353  | 50,198   | Ψ  | 35,268  |  |  |
| Number of Active Retirants   | 1,178                                       | 4,386  | 15,706  | 23,764  | 18,842   | 18,076  | 63,426   |    | 145,378 |  |  |
| Period 10/1/04 to 9/30/05    |   |        |         |         |          |         |          |    |         |  |  |
| Average Monthly Benefit      | \$ 583                                      | \$ 170 | \$ 298  | \$ 540  | \$ 887   | \$1,346 | \$ 2,374 | \$ | 1,453   |  |  |
| Average Final Average Salary | 1,542                                       | 16,607 | 16,719  | 22,539  | 28,288   | 34,036  | 50,418   | Ψ  | 35,938  |  |  |
| Number of Active Retirants   | 1,396                                       | 4,601  | 17,884  | 22,502  | 21,321   | 16,548  | 67,454   |    | 151,706 |  |  |
| Period 10/1/05 to 9/30/06    |   |        |         |         |          |         |          |    |         |  |  |
| Average Monthly Benefit      | \$ 388                                      | \$ 176 | \$ 308  | \$ 557  | \$ 912   | \$1,381 | \$ 2,419 | \$ | 1,500   |  |  |
| Average Final Average Salary | 8,395                                       | 17,286 | 17,447  | 23,464  | 29,324   | 35,216  | 53,049   | -  | 38,048  |  |  |
| Number of Active Retirants   | 406   | 4,921  | 18,378  | 23,204  | 21,814   | 17,107  | 71,333   |    | 157,163 |  |  |
| Period 10/1/06 to 9/30/07    |   |        |         |         |          |         |          |    |         |  |  |
| Average Monthly Benefit      | \$ 643                                      | \$ 186 | \$ 318  | \$ 574  | \$ 938   | \$1,419 | \$ 2,481 | \$ | 1,542   |  |  |
| Average Final Average Salary | 18,219                                      | 18,069 | 18,125  | 24,255  | 30,284   | 36,138  | 54,189   | ·  | 39,069  |  |  |
| Number of Active Retirants   | 540   | 5,266  | 19,007  | 23,933  | 22,390   | 17,478  | 74,230   |    | 162,844 |  |  |
| Period 10/1/07 to 9/30/08    |   |        |         |         |          |         |          |    |         |  |  |
| Average Monthly Benefit      | \$ 1.112                                    | \$ 194 | \$ 328  | \$ 591  | \$ 966   | \$1,457 | \$ 2,537 | \$ | 1,580   |  |  |
| Average Final Average Salary | 30,583                                      | 18,574 | 18,753  | 25,023  | 31,222   | 37,076  | 55,184   | ·  | 39,973  |  |  |
| Number of Active Retirants   | 1,199                                       | 5,586  | 19,514  | 24,309  | 22,791   | 17,673  | 76,193   |    | 167,265 |  |  |
| Period 10/1/08 to 9/30/09    |   |        |         |         |          |         |          |    |         |  |  |
| Average Monthly Benefit      | \$ 1,095                                    | \$ 201 | \$ 337  | \$ 606  | \$ 994   | \$1,494 | \$ 2,590 | \$ | 1,617   |  |  |
| Average Final Average Salary | 32,482                                      | 19,036 | 19,343  | 25,731  | 32,097   | 37,379  | 56,113   |    | 40,843  |  |  |
| Number of Active Retirants   | 1,515                                       | 5,875  | 19,988  | 24,746  | 23,314   | 17,912  | 78,572   |    | 171,922 |  |  |
| Period 10/1/09 to 9/30/10    |   |        |         |         |          |         |          |    |         |  |  |
| Average Monthly Benefit      | \$ 1,205                                    | \$ 209 | \$ 351  | \$ 630  | \$ 1,039 | \$1,561 | \$ 2,669 | \$ | 1,693   |  |  |
| Average Final Average Salary | 37,222                                      | 19,559 | 20,269  | 26,822  | 33,777   | 40,271  | 57,785   |    | 42,731  |  |  |
| Number of Active Retirants   | 1,909                                       | 6,421  | 20,817  | 25,838  | 25,368   | 20,058  | 87,311   |    | 187,722 |  |  |
|                              |   |        |         |         |          |         |          |    |         |  |  |

Source: Gabriel Roeder Smith & Co.

## **Schedule of Average Benefit Payments - Health**

Last Six Years

| Payment Periods              | Credited Service (Years) as of September 30 |        |         |         |          |          |          |          |  |  |  |
|------------------------------|---|--------|---------|---------|----------|----------|----------|----------|--|--|--|
|                              | 0 - 5                                       | 5 - 10 | 10 - 15 | 15 - 20 | 20 - 25  | 25 - 30  | 30+      | Total    |  |  |  |
| Period 10/1/04 to 9/30/05    |   |        |         |         |          |          |          |          |  |  |  |
| Average Monthly Benefit      | \$ 114                                      | \$ 188 | \$ 337  | \$ 587  | \$ 937   | \$ 1,678 | \$ 2,505 | \$ 1,592 |  |  |  |
| Average Final Average Salary | 14,348                                      | 16,926 | 17,732  | 23,228  | 28,848   | 40,434   | 51,670   | 38,192   |  |  |  |
| Number of Active Retirants   | 200   | 3,602  | 10,994  | 15,777  | 16,341   | 20,508   | 48,162   | 115,584  |  |  |  |
| Period 10/1/05 to 9/30/06    |   |        |         |         |          |          |          |          |  |  |  |
| Average Monthly Benefit      | \$ 174                                      | \$ 190 | \$ 341  | \$ 593  | \$ 952   | \$ 1,684 | \$ 2,493 | \$ 1,606 |  |  |  |
| Average Final Average Salary | 17,201                                      | 17,372 | 18,411  | 24,056  | 29,679   | 40,967   | 52,919   | 39,334   |  |  |  |
| Number of Active Retirants   | 217   | 3,710  | 10,952  | 15,987  | 16,465   | 20,803   | 50,401   | 118,535  |  |  |  |
| Period 10/1/06 to 9/30/07    |   |        |         |         |          |          |          |          |  |  |  |
| Average Monthly Benefit      | \$ 583                                      | \$ 198 | \$ 354  | \$ 611  | \$ 981   | \$ 1,718 | \$ 2,562 | \$ 1,663 |  |  |  |
| Average Final Average Salary | 27,114                                      | 18,084 | 19,129  | 24,906  | 30,751   | 41,666   | 54,256   | 40,602   |  |  |  |
| Number of Active Retirants   | 284   | 3,857  | 10,787  | 16,158  | 16,680   | 20,990   | 52,577   | 121,333  |  |  |  |
| Period 10/1/07 to 9/30/08    |   |        |         |         |          |          |          |          |  |  |  |
| Average Monthly Benefit      | \$ 1,270                                    | \$ 207 | \$ 365  | \$ 631  | \$ 1,012 | \$ 1,752 | \$ 2,626 | \$ 1,714 |  |  |  |
| Average Final Average Salary | 37,614                                      | 18,738 | 19,794  | 25,836  | 31,743   | 42,336   | 55,404   | 41,714   |  |  |  |
| Number of Active Retirants   | 803   | 4,009  | 10,668  | 16,237  | 16,871   | 21,095   | 54,214   | 123,897  |  |  |  |
| Period 10/1/08 to 9/30/09    |   |        |         |         |          |          |          |          |  |  |  |
| Average Monthly Benefit      | \$ 1,230                                    | \$ 216 | \$ 376  | \$ 647  | \$ 1,039 | \$ 1,782 | \$ 2,683 | \$ 1,757 |  |  |  |
| Average Final Average Salary | 38,012                                      | 19,252 | 20,328  | 26,525  | 32,575   | 42,936   | 56,446   | 42,631   |  |  |  |
| Number of Active Retirants   | 1,053                                       | 4,212  | 10,757  | 16,602  | 17,376   | 21,419   | 56,377   | 127,796  |  |  |  |
| Period 10/1/09 to 9/30/10    |   |        |         |         |          |          |          |          |  |  |  |
| Average Monthly Benefit      | \$ 1,318                                    | \$ 227 | \$ 395  | \$ 673  | \$ 1,087 | \$ 1,825 | \$ 2,767 | \$ 1,841 |  |  |  |
| Average Final Average Salary | 39,573                                      | 19,994 | 21,582  | 27,699  | 34,383   | 44,302   | 58,280   | 44,642   |  |  |  |
| Number of Active Retirants   | 1,423                                       | 4,527  | 11,064  | 17,419  | 19,071   | 23,284   | 63,983   | 140,771  |  |  |  |

Source: Gabriel Roeder Smith & Co. - for all periods except 10/1/04 to 9/30/05

### **Schedule of Average Benefit Payments - Dental/Vision**

**Last Six Years** 

| Payment Periods              | Credited Service (Years) as of September 30 |        |         |         |          |          |          |          |  |  |  |
|------------------------------|---|--------|---------|---------|----------|----------|----------|----------|--|--|--|
| •                            | 0 - 5                                       | 5 - 10 | 10 - 15 | 15 - 20 | 20 - 25  | 25 - 30  | 30+      | Total    |  |  |  |
| Period 10/1/04 to 9/30/05    |   |        |         |         |          |          |          |          |  |  |  |
| Average Monthly Benefit      | \$ 121                                      | \$ 188 | \$ 336  | \$ 582  | \$ 933   | \$ 1,685 | \$ 2,503 | \$ 1,581 |  |  |  |
| Average Final Average Salary | 14,741                                      | 16,957 | 17,768  | 23,221  | 28,858   | 40,661   | 51,804   | 38,138   |  |  |  |
| Number of Active Retirants   | 228   | 3,858  | 11,858  | 16,959  | 17,352   | 21,664   | 50,334   | 122,253  |  |  |  |
| Period 10/1/05 to 9/30/06    |   |        |         |         |          |          |          |          |  |  |  |
| Average Monthly Benefit      | \$ 178                                      | \$ 190 | \$ 340  | \$ 588  | \$ 947   | \$ 1,691 | \$ 2,489 | \$ 1,592 |  |  |  |
| Average Final Average Salary | 17,087                                      | 17,378 | 18,437  | 24,041  | 29,696   | 41,171   | 53,026   | 39,231   |  |  |  |
| Number of Active Retirants   | 247   | 4,009  | 11,884  | 17,278  | 17,576   | 22,022   | 52,736   | 125,752  |  |  |  |
| Period 10/1/06 to 9/30/07    |   |        |         |         |          |          |          |          |  |  |  |
| Average Monthly Benefit      | \$ 584                                      | \$ 198 | \$ 352  | \$ 607  | \$ 974   | \$ 1,721 | \$ 2,556 | \$ 1,643 |  |  |  |
| Average Final Average Salary | 27,200                                      | 18,134 | 19,143  | 24,868  | 30,674   | 41,746   | 54,309   | 40,374   |  |  |  |
| Number of Active Retirants   | 319   | 4,221  | 11,947  | 17,648  | 17,942   | 22,362   | 55,166   | 129,605  |  |  |  |
| Period 10/1/07 to 9/30/08    |   |        |         |         |          |          |          |          |  |  |  |
| Average Monthly Benefit      | \$ 1,234                                    | \$ 206 | \$ 363  | \$ 624  | \$ 1,003 | \$ 1,752 | \$ 2,618 | \$ 1,689 |  |  |  |
| Average Final Average Salary | 37,093                                      | 18,709 | 19,789  | 25,686  | 31,584   | 42,341   | 55,394   | 41,375   |  |  |  |
| Number of Active Retirants   | 865   | 4,416  | 11,957  | 17,817  | 18,222   | 22,524   | 56,927   | 132,728  |  |  |  |
| Period 10/1/08 to 9/30/09    |   |        |         |         |          |          |          |          |  |  |  |
| Average Monthly Benefit      | \$ 1,194                                    | \$ 215 | \$ 372  | \$ 639  | \$ 1,027 | \$ 1,779 | \$ 2,673 | \$ 1,726 |  |  |  |
| Average Final Average Salary | 37,407                                      | 19,216 | 20,292  | 26,357  | 32,340   | 42,861   | 56,379   | 42,185   |  |  |  |
| Number of Active Retirants   | 1,143                                       | 4,665  | 12,170  | 18,337  | 18,816   | 22,872   | 59,118   | 137,121  |  |  |  |
| Period 10/1/09 to 9/30/10    |   |        |         |         |          |          |          |          |  |  |  |
| Average Monthly Benefit      | \$ 1,281                                    | \$ 225 | \$ 389  | \$ 662  | \$ 1,072 | \$ 1,816 | \$ 2,754 | \$ 1,804 |  |  |  |
| Average Final Average Salary | 38,901                                      | 19,894 | 21,438  | 27,429  | 34,054   | 44,112   | 58,156   | 44,062   |  |  |  |
| Number of Active Retirants   | 1,526                                       | 5,047  | 12,555  | 19,237  | 20,621   | 24,738   | 66,628   | 150,352  |  |  |  |

Source: Gabriel Roeder Smith & Co. - for all periods except 10/1/04 to 9/30/05

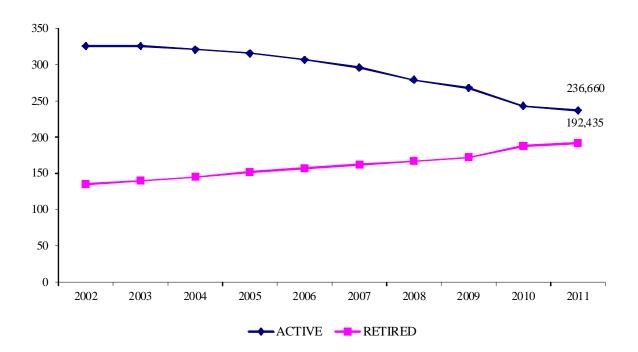
### **Schedule of Principal Participating Employers**

For Fiscal Years Ending September 30, 2010 and 2001

|                              | 201       | 10                 | 2001                 |                    |  |  |
|------------------------------|-----------|--------------------|----------------------|--------------------|--|--|
|                              |           | Percentage         |                      | Percentage         |  |  |
| Participating Employer       | Employees | of Total<br>System | Covered<br>Employees | of Total<br>System |  |  |
| Detroit Public Schools       | 10,521    | 4.34 %             | 19,231               | 6.20 %             |  |  |
| Utica Community Schools      | 4,525     | 1.87               | 3,739                | 1.20               |  |  |
| Grand Rapids Public Schools  | 3,853     | 1.59               | 3,779                | 1.22               |  |  |
| Ann Arbor Public Schools     | 3,659     | 1.51               | 2,879                | 0.93               |  |  |
| Oakland Community College    | 3,066     | 1.26               | 1,902                | 0.61               |  |  |
| Kalamazoo Public Schools     | 3,053     | 1.26               | 2,135                | 0.69               |  |  |
| Dearborn Public Schools      | 3,035     | 1.25               | 2,581                | 0.83               |  |  |
| Flint Community Schools      | 2,808     | 1.16               | 3,374                | 1.09               |  |  |
| Plymouth-Canton Community SD | 2,733     | 1.13               | 2,335                | 0.75               |  |  |
| Macomb Community College     | 2,680     | 1.10               | 1,685                | 0.54               |  |  |
| Allother                     | 202,635   | 83.53              | 266,768              | 85.94              |  |  |
| Total                        | 242,568   | 100.00 %           | 310,408              | 100.00 %           |  |  |

## **Ten Year History of Membership (In thousands)**

Fiscal Year Ended September 30



Source: Gabriel Roeder Smith & Co.

## Schedule of Participating Employers at 9/30/11

### **Universities:**

Central Michigan University Eastern Michigan University Ferris State University Lake Superior State University Michigan Technological University Northern Michigan University Western Michigan University

### **Community Colleges:**

Alpena Community College Bay De Noc Community College Charles S Mott Community College Delta College Glen Oaks Community College Gogebic Community College Grand Rapids Community College Henry Ford Community College Jackson County Community College Kalamazoo Valley Community College Kellogg Community College Kirtland Community College Lake Michigan College Lansing Community College Macomb Community College Mid-Michigan Community College Monroe County Community College Montcalm Community College Muskegon Community College North Central Michigan College Northwestern Michigan College Oakland Community College Schoolcraft Community College Southwestern Michigan College St Clair County Community College Washtenaw Community College Wayne County Community College West Shore Community College

#### **Intermediate School Districts:**

Allegan Area Educational Service Agency Alpena-Montmorency-Alcona E. S. D. Barry Intermediate School District Bay-Arenac Intermediate School District Berrien Intermediate School District Branch Intermediate School District Calhoun Intermediate School District Charlevoix-Emmet Intermediate School District Cheboygan-Otsego-Presque Isle ISD Clare-Gladwin Intermediate School District

Clinton County R. E. S. A.

Coor Intermediate School District

Copper Country Intermediate School District Delta-Schoolcraft Intermediate School District Dickinson-Iron Intermediate School District Eastern U P Intermediate School District

Eaton Intermediate School District Genesee Intermediate School District

Gogebic-Ontonagon Intermediate School District

Gratiot-Isabella R. E. S. D.

Hillsdale Intermediate School District Huron Intermediate School District Ingham Intermediate School District Ionia Intermediate School District Iosco Intermediate School District Jackson Intermediate School District

Kalamazoo Valley Intermediate School District

Kent Intermediate School District Lapeer Intermediate School District Lenawee Intermediate School District Lewis Cass Intermediate School District Livingston Intermediate School District Macomb Intermediate School District Manistee Intermediate School District Marquette-Alger Intermediate School District Mason Lake Intermediate School District Mecosta-Osceola Intermediate School District Menominee Intermediate School District Midland Intermediate School District Monroe Intermediate School District

Montcalm Area Intermediate School District Muskegon Area Intermediate School District Newaygo Intermediate School District Oakland Intermediate School District Oceana Intermediate School District Ottawa Area Intermediate School District Saginaw Intermediate School District Sanilac Intermediate School District

Shiawassee R. E. S. D.

St. Clair Intermediate School District St. Joseph Intermediate School District

Traverse Bay Area Intermediate School District

Tuscola Intermediate School District Van Buren Intermediate School District Washtenaw Intermediate School District

Wayne R. E. S. A.

Wexford-Missaukee Intermediate School District

## Schedule of Participating Employers at 9/30/11 (continued)

#### **K – 12 School Districts:**

Adams Township School District

Adams-Sigel #3 School **Addison Community Schools** 

Adrian Public Schools Airport Community Schools

Akron-Fairgrove Schools

Alanson Public Schools

Alba Public Schools Albion Public Schools

Alcona Community Schools

Algonac Community Schools

Allegan Public Schools

Allen Park Public Schools Allendale Public Schools

Alma Public Schools

**Almont Community Schools** 

Alpena Public Schools

Anchor Bay School District Ann Arbor Public Schools

Arenac-Eastern High School

Armada Area Schools

**Arvon Township Schools** 

Ashley Community Schools

Athens Area Schools

**Atherton Community Schools** 

**Atlanta Community Schools** 

Au Gres-Sims School District Autrain-Onota Public Schools

Avondale School District

**Bad Axe Public Schools** 

**Baldwin Community Schools** 

**Bangor Public Schools** 

**Bangor Township Schools** 

Baraga Township Schools

Bark River - Harris Schools

**Bath Community Schools** 

**Battle Creek Public Schools** 

**Bay City Public Schools Beal City Schools** 

Bear Lake School

**Beaver Island Community Schools** Beaverton Rural School District

**Bedford Public Schools** 

Beecher Community School District

Belding Area Schools

Bellaire Public Schools

Bellevue Community Schools

Bendle Public Schools

**Bentley Community Schools** 

Benton Harbor Area Schools

Benzie County Central Schools

Berkley City School District

Berrien Springs Public Schools

Bessemer Area School District

Big Bay De Noc School District

Big Burning-Colfax #1f School

Big Jackson School District

Big Rapids Public Schools

Birch Run Area Schools

Birmingham City Schools

Blissfield Community School District Bloomfield Hills School District

Bloomingdale Public Schools

Bois Blanc Township School District

Boyne City Public Schools

Boyne Falls Public Schools

**Brandon School District** 

**Brandywine Public Schools** 

**Breckenridge Community Schools** 

**Breitung Township Schools** 

Bridgeport-Spaulding Comm. School District

**Bridgman Public Schools** 

**Brighton Area Schools** 

**Brimley Public Schools** 

Britton-Macon Area School

**Bronson Community Schools** 

**Brown City Community Schools** 

**Buchanan Community Schools** 

**Buckley Community Schools** 

Buena Vista School District

**Bullock Creek School District** 

**Burr Oak Community Schools** 

**Burt Township School District** 

Byron Area Schools

Byron Center Public Schools

Cadillac Area Public Schools Caledonia Community Schools

Calumet Public Schools

Camden-Frontier School

Capac Community Schools

Carman-Ainsworth Community School District

Carney-Nadeau Public Schools

Caro Community Schools

Carrollton School District

Carson City-Crystal Area Schools

Carsonville-Port Sanilac School

## **Schedule of Participating Employers at 9/30/11 (continued)**

#### **K - 12 School Districts (continued):**

Caseville Public Schools
Cass City Public Schools
Cassopolis Public Schools
Cassopolis Public Schools
Cassopolis Public Schools
Dexter Community Schools
Dester Community Schools

Cedar Springs Public SchoolsDollar Bay-Tamarack School DistrictCenter Line Public SchoolsDowagiac-Union School DistrictCentral Lake-Antrim County Public SchoolsDryden Community SchoolsCentral Montcalm Public SchoolsDundee Community Schools

Centreville Public Schools

Durand Area Schools

Charlevoix Public Schools

Charlotte Public Schools

Chassell Township Schools

Cheboygan Area School District

East China Township School District

East Detroit School District

East Grand Rapids Public Schools

East Jackson Public Schools

Chelsea School District
Chesaning-Union Schools
Chippewa Hills School District
Chippewa Valley Schools
Chippewa Valley Schools
Church School
Church School
East Lansing Public Schools
Eaton Rapids Public Schools
Eau Claire Public Schools
Eccles-Sigel #4 School

Church School Eccles-Sigel #4 School
Clare Public Schools Ecorse Public Schools
Clarenceville School District Edwardsburg Public Schools
Clarkston Community Schools Elk Rapids Schools

Clawson City School District Ellsworth Community Schools
Climax-Scotts Community Schools
Elm River Township Schools

Clinton Community Schools Engadine Consolidated School District #4

Clintondale Community Schools
Clio Area School District
Escanaba Area Public Schools
Essexville-Hampton Public Schools

Clio Area School District Essexville-Hampton Public Schools
Coldwater Community Schools Evart Public Schools

Coleman Community Schools Ewen-Trout Creek Consolidated School District

Coloma Community SchoolsFairview Area SchoolsColon Community SchoolFarmington Public SchoolsColumbia School DistrictFarwell Area SchoolsComstock Park Public SchoolsFennville Public SchoolsComstock Public SchoolsFenton Area Public SchoolsConcord Community SchoolsFerndale City School DistrictConstantine Public SchoolsFitzgerald Public Schools

Coon-Berlin Township School District #3 Flat Rock Community Schools
Coopersville Public Schools Flint City School District

Corunna Public Schools

Covert Public Schools

Flushing Community Schools

Forest Area Schools

Crawford-AuSable School District
Crawford-Excelsior School District #1
Crestwood School District
Fowler Public Schools
Fowler Public Schools

Croswell-Lexington Schools
Dansville Agricultural School
Davison Community Schools
Frankenmuth School District
Prankfort-Elberta Area Schools

Dearborn Heights School District #7 Fraser Public Schools

Dearborn Public Schools Freeland Community Schools
Decatur Public Schools Free Soil Community School District #8

Deckerville Community School District

Fremont Public Schools

Deerfield Public Schools

Fremont Public Schools

Fruitport Community Schools

Delton-Kellogg Schools Fulton Schools

DeTour Area Schools Galesburg-Augusta Community School District

## Schedule of Participating Employers at 9/30/11 (continued)

### **K - 12 School Districts (continued):**

Galien Township School
Garden City Public Schools
Gaylord Community Schools
Genesee School District
Gibraltar School District
Gladstone Area Schools
Gladwin Community Schools
Glen Lake Community Schools
Glenn-Ganges School District #4

Gobles Public Schools Godfrey-Lee Public Schools Godwin Heights Public Schools

Goodrich Area Schools

Grand Blanc Community Schools Grand Haven Public Schools Grand Ledge Public Schools Grand Rapids Public Schools Grandville Public Schools Grant Public Schools Grant Township School

Grass Lake Community Schools Greenville Public Schools Grosse Ile Township Schools Grosse Pointe Public Schools Gull Lake Community Schools Gwinn Area Community Schools

Hale Area Schools

Hamilton Community Schools Hamtramck Public Schools Hancock Public Schools

Hanover Horton School District

Harbor Beach Community School District

Harbor Springs Public Schools Harper Creek Community Schools Harper Woods Public Schools Harrison Community Schools

Hart Public Schools Hartford Public Schools Hartland Consolidated Schools Haslett Public Schools

Hastings Area School District

Haynor- Easton Township School District #6

Hazel Park Public Schools Hemlock Public Schools Hesperia Community Schools Highland Park School District Hillman Community Schools Hillsdale Community Schools Holland Public Schools

Holly Area Schools Holt Public Schools Holton Public Schools Homer Community Schools Hopkins Public Schools

Houghton Lake Community Schools

Houghton-Portage Township School District

Howell Public Schools Hudson Area Schools Hudsonville Public Schools Huron School District Huron Valley School District

Ida Public Schools

**Imlay City Community Schools** 

Inkster Public Schools Inland Lakes Schools Ionia Public Schools

Iron Mountain Public Schools

Ironwood-Gogebic City Area Schools

Ishpeming Public Schools Ithaca Public Schools Jackson Public Schools Jefferson Schools Jenison Public Schools

Johannesburg-Lewiston Area Schools Jonesville Community Schools Kalamazoo Public Schools

Kaleva Norman Dickson School District

Kalkaska Public Schools Kearsley Community Schools Kelloggsville Public Schools Kenowa Hills Public Schools Kent City Community Schools Kentwood Public Schools Kingsley Area Schools Kingston Community Schools

Kipper School

L'Anse Public Schools

Laingsburg Community Schools

Lake City Area Schools

Lake Fenton Community School District Lake Linden-Hubbell Public Schools Lake Orion Community School #3

Lake Shore Public Schools

Laker Schools

Lakeshore Public Schools
Lakeview Community Schools
Lakeview Public Schools
Lakeview School District
Lakeville Community Schools
Lakewood School District
Lamphere Public Schools
L'Anse Creuse Public Schools

## **Schedule of Participating Employers at 9/30/11 (continued)**

### **K - 12 School Districts (continued):**

Lansing Public Schools Millington Community School District

Lapeer Public Schools Mio-AuSable Schools

Lawrence Public Schools Mona Shores School District #29

Lawton Community Schools Monroe Public Schools

Leland Public Schools Montabella Community Schools

Les Cheneaux Community Schools

Leslie Public Schools

Montague Area Public Schools

Montrose Community Schools

Lincoln Consolidated Schools

Lincoln Park Public Schools

Montrose Community Schools

Moran Township School District

Morenci Area Schools

Linden Community Schools Morley-Stanwood Community Schools

Litchfield Community Schools Morrice Area Schools

Livonia Public Schools

Lowell Area Schools

Ludington Area Schools

Mackinaw City Public Schools

Munising Public Schools

Munising Public Schools

Mackinaw City Public Schools

Mackinac Island Public Schools

Muskegon City Public Schools

Muskegon City Public Schools

Madison District Public Schools

Madison School District #2

Mancelona Public Schools

Muskegon Heights City Public Schools

Napoleon Comm. School District

Negaunee Public Schools

Manchester Community Schools

Manistee Public Schools

New Buffalo Area Schools

New Haven Community Schools

Manistee Public Schools

Manistique Area Schools

New Haven Community Schools

New Lothrup Area Public Schools

Manton Consolidated School District

Mewaygo Public Schools

Maple Valley Schools

Nice Community Schools

Nile Public Schools

Mar Lee School District

Miles Public Schools

Marcellus Community Schools

North Adams-Jerome Public Schools

Marion Public Schools

Marlette Community Schools

Morth Branch Area Schools

North Central Area Schools

North Diskingen Schools

Marquette Area Public SchoolsNorth Dickinson SchoolMarshall Public SchoolsNorth Huron SchoolsMartin Public SchoolsNorth LeValley School #2Marysville Public SchoolsNorth Muskegon Public Schools

Mason Co.-Eastern-Custer #5 School DistrictNorthport Public SchoolsMason Consolidated SchoolsNorthview Public SchoolsMason County Central School DistrictNorthville Public Schools

Mason Public Schools

Northwest School District

Matteway Consolidated Schools

Northwest Schools

Northwest Schools

Mattawan Consolidated Schools
Mayville Community Schools
McBain Rural Agricultural School
Novi Community School District

Melvindale-Northern Allen Park School District

Melvindale-Northern Allen Park School District

Oak Park School District

Memphis Community Schools

Mendon Community School

Menominee Area Public Schools

Okemos Public Schools

Olivet Community Schools

Meridian Public Schools
Merrill Community Schools
Mesick Consolidated Schools
Mesick Consolidated Schools
Michigan Center School District

Onaway Area Community Schools
Onsted Community Schools
Ontonagon Area School District

Mid Peninsula Schools
Midland City Schools
Milan Area Schools
Otsego Public Schools
Otsego Public Schools

## Schedule of Participating Employers at 9/30/11 (continued)

### **K - 12 School Districts (continued):**

Ovid-Elsie Area Schools

Owendale-Gagetown Area Schools

Owosso Public Schools

Oxford Area Community Schools

Palo Community Schools
Parchment School District
Paw Paw Public Schools
Peck Community Schools
Pellston Public Schools
Pennfield Public Schools
Pentwater Public Schools

Perry Public Schools

Petoskey Public Schools

Pewamo-Westphalia Comm School District

Pickford Public Schools Pinckney Community Schools Pinconning Area Schools Pine River Area Schools Pittsford Area Schools

Plainwell Community Schools

Plymouth-Canton Community School District

Pontiac City School District
Port Hope Community Schools
Port Huron Area Schools
Portage Public Schools
Portland Public Schools
Posen Consolidated Schools
Potterville Public Schools
Powell Township School District
Quincy Community Schools
Rapid River Public Schools
Ravenna Public Schools
Ravenna Public Schools
Redford-Union School District #1

Reese Public Schools Reeths-Puffer Schools

Republic-Michigamme Schools Richmond Community Schools River Rouge Public Schools

Reed City Public School District

River School

River Valley School District

Riverside-Hagar School District #6

Riverview Public Schools Rochester Community Schools Rockford Public Schools Rogers City Area Schools Romeo Community Schools Romulus Community Schools Roscommon Area Public Schools Roseville Community Schools Royal Oak City School District

Rudyard Public Schools Saginaw City Schools

Saginaw Township Community Schools

Saline Area Schools

Sand Creek Community Schools Sandusky Community Schools Saranac Community Schools Saugatuck Public Schools Sault Ste Marie Public Schools Schoolcraft Community Schools

Shelby Public Schools
Shepherd Public Schools
South Haven Public Schools
South Lake Public Schools
South Lyon Community Schools
South Redford School District
Southfield Public Schools

Southgate Community School District

Sparta Area Schools

Spring Lake Public Schools Springport Public Schools St Charles Community Schools St Ignace Public Schools St Johns Public Schools St Joseph Public Schools St Louis Public Schools

Standish-Sterling Community School District

Stanton Township Public Schools Stephenson Area Public Schools Stockbridge Community Schools Strange-Oneida School #3 Sturgis Public Schools Summerfield Schools

Superior Central School District Suttons Bay Public Schools Swan Valley School District Swartz Creek Community Schools Tahquamenon Area School District

Tawas Area Schools
Taylor Township Schools
Tecumseh Public Schools
Tekonsha Community Schools
Thornapple-Kellogg School
Three Rivers Community Schools
Traverse City Public Schools
Trenton Public Schools
Tri-County Area Schools
Troy City School District
Ubly Community Schools

**Union City Community Schools** 

## Schedule of Participating Employers at 9/30/11 (continued)

### **K - 12 School Districts (continued):**

Unionville-Sebewaing Area Schools

Utica Community Schools Van Buren Public Schools Vanderbilt Area Schools

Vandercook Lake Public Schools

Van Dyke Public Schools Vassar Public Schools Verona Mills School

Vestaburg Community Schools Vicksburg Community Schools Wakefield-Marenisco School District

Waldron Area Schools

Walkerville Rural Community School District

Walled Lake Consolidated Schools Warren Consolidated Schools Warren Woods Public Schools Waterford School District

Watersmeet Township School District

Watervliet Public Schools Waverly Community Schools Wayland Union Schools

Wayne-Westland Community Schools Webberville Community Schools Wells Township School #18 West Bloomfield Schools

West Branch-Rose City Area Schools West Iron County Public Schools West Ottawa Public Schools

Western School District Westwood Community Schools Westwood Heights Schools White Cloud Public Schools

White Pigeon Community Schools Whitefish Township School Whiteford Agricultural School Whitehall District Schools Whitmore Lake Public Schools Whittemore-Prescott Area Schools

Williamston Community Schools Willow Run Community Schools Wolverine Community Schools

Wood School District #8, Bangor Township Woodhaven-Brownstown School District

Wyandotte Public Schools Wyoming Public Schools Yale Public School District Ypsilanti Public Schools Zeeland Public Schools

#### **Public School Academies:**

Academy of Flint

AGBU Alex & Marie Manoogian School

Arts Academy in the Woods

Bay-Arenac Community High School Blue Water Learning Academy Blue Water Middle College Academy

Casman Alternative Academy

Central Academy
Cole Academy
Colin Powell Academy

Commonwealth Community Development Academy

Concord Academy

Countryside Charter School Creative Technologies Academy

Da Vinci Institute Dearborn Academy

Detroit Academy of Arts & Sciences Detroit Community High School Detroit Service Learning Academy Edison Public School Academy El-Hajj Malik El-Shabazz Academy

Gaudior Academy

Grand Rapids Child Discovery Center

Henry Ford Academy Holly Academy

Honey Creek Community School

Hope Academy

International Academy of Flint
International Academy of Saginaw

Joseph K. Lumsden Public School Academy

Macomb Academy

Martin Luther King, Jr. Public School Academy

Merritt Academy

Michigan Math and Science Academy

Michigan Technical Academy Mid-Michigan Leadership Academy Nah Tah Wahsh Public School Academy

New Beginnings Academy New Branches School North Star Academy

Oakland International Academy

Outlook Academy

Plymouth Educational Center Charter School

St. Clair County Academy of Style St. Clair County Career Prep Academy St. Clair County Intervention Academy St. Clair County Learning Academy

Summit Academy Summit Academy North

## **Schedule of Participating Employers at 9/30/11 (continued)**

### **Public School Academies (continued):**

Three Lakes Academy
Trillium Performing Arts Academy
University Preparatory Academy
University Prep Science & Math
Virtual Learning Academy of St. Clair
Walden Green Day School
Washtenaw Technical Middle College
Wavecrest Career Academy
West Village Academy
Windover High School
Woodland Park Academy
Woodward Academy

### Libraries:

Ann Arbor District Library
Bacon Memorial District Library
Cheboygan Area Public Library
Flint Public Library
Grosse Pointe Public Library
Hackley Public Library
Houghton Lake Public Library
Kalamazoo Public Library
Mt Clemens Public Library
Public Libraries of Saginaw
Willard District Library

### **ACKNOWLEDGMENTS**

The Michigan Public School Employees' Retirement System Comprehensive Annual Financial Report is prepared by Financial Services, Fiscal Management Division. Staff of the division for the fiscal year 2010 - 2011 report included:

### Management:

Ronald W. Foss, Director Cindy Peters, Accounting Manager Paula Webb, Accounting Manager

#### Accountants:

Carol Wheaton Dan Harry Erik Simmer

Technical and Support Staff:

Becky Cain Jamin Schroeder

Special thanks are also extended to the Office of Retirement Services personnel, accounting and support personnel throughout Financial Services, Investments Division of Treasury, Department of Community Health cashiering personnel, Office of the Auditor General, Gabriel Roeder Smith & Co., and the staff at the Office of Financial Management. Preparation of this report would not have been possible without the efforts of these individuals.

The report may be viewed on-line at: <a href="www.michigan.gov/ors">www.michigan.gov/ors</a>