

## "A bridge is a structure designed to provide continuous passage over any obstacle."



Municipal Employees' Retirement System of Michigan Comprehensive Annual Financial Report Fiscal Year Ended December 31, 2002
Anne M. Wagner, Chief Executive Officer
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## CERTIFICATE OF ACHIEVEMENT FOR EXCELLENCE IN FINANCIAL REPORTING



May 8, 2003

The Retirement Board Municipal Employees' Retirement System of Michigan 1134 Municipal Way Lansing, Michigan 48917

Dear Retirement Board Members:

It is a privilege to present to you the Comprehensive Annual Financial Report (CAFR) of the Municipal Employees' Retirement System of Michigan (MERS) for the fiscal year ended December 31, 2002. We believe this report reflects the careful stewardship of the system's assets as well as the staff's dedication to serving our membership.

Since its inception by legislative initiative in 1946, MERS has experienced continuous membership growth. Today, with 578 municipalities, the focus remains to provide retirement, disability and survivor benefit protection for thousands of public employees throughout the whole state.

## Fiscal Year 2002 Highlights

In May, MERS staff moved into the new home office building. This was the culmination of a project that stretched over the past two years. For the first time in MERS' history, the system has its own facility with plenty of room for future expansion. The conference/training rooms provide much needed space for in-house retirement seminars with easy access to major highways in Lansing. The Board and staff celebrated in June with an Open House for the statewide family and friends of MERS. The new boardroom was named in honor of Bruce A. Seymore for his leadership and many contributions to the system. Mr. Seymore served on the Board as chairperson for more than twenty years, and he continued to serve as the retiree board member after retirement from the City of Port Huron in 1997.

Shortly following the Open House, the Member and Retiree Services Department initiated the new training room with a "Planning Your Retirement" seminar. These seminars, designed for active members of MERS who plan to retire within two years, are held monthly in the MERS' building from spring through fall. Each seminar attendee is provided information about MERS' retirement process as well as a current estimate of their MERS' participation. In addition, staff scheduled seminars at off-site locations around the state during the year. The effort was a resounding success with more than 1,000 people in attendance.

In June, MERS began the long-planned implementation of upgrading the system to PeopleSoft version 8.4. This was an enormous project requiring that departments work in tandem with outside consultants to facilitate the conversion. The project was delivered on time in November. The overwhelming advantage of this project for MERS is our ability to operate the system in real time. The municipalities may now view their accounts using a customer portal sign-on for billing information and making contribution payments via bank-to-bank transfers. This project was a huge step in the continued efforts to move the system to a paperless environment.

The Board approved a three-phase feasibility study on health care in August to explore what, if any, role MERS might play in the health care arena. The study requires the Board's approval at the end of each phase in order to continue to the next phase. The study, at phase three, continued into 2003.

The system's annual meeting was held in September at the Amway Grand Plaza Hotel in Grand Rapids. Each participating municipality and court may send to the meeting two delegates and two alternate delegates representing the employers and employees. The event provided education for the delegates and an opportunity for them to select board members for three-year terms. Raymond Klosowski, employee representative from Isabella County, and Gary Murphy, employer representative from the City of East Lansing, were elected to serve.

## Report Contents and Structure

MERS is an agent multiple-employer public employee pension plan and is a tax-qualified plan under section 401(a) of the Internal Revenue Code. MERS is an independent non-profit corporation pursuant to Public Act 220 of 1996 that is an instrumentality of the participating municipalities and courts.

Under the MERS Plan Document, the municipalities and courts are provided with the option of selecting either the defined benefit retirement plan or the defined contribution program. As of December 31, 2002, with $\$ 3.3$ billion in assets, the defined benefit plan had 37,053 active members, 17,530 retired members (and beneficiaries) and 4,760 vested former members. For that same period, with $\$ 84.8$ million in assets, the defined contribution program had 4,743 participants. The total membership for both the defined benefit plan and the defined contribution program at fiscal year-end was 578 municipalities and courts, with 64,086 participants. The complete list of MERS' member municipalities can be found on pages 86-97.

The responsibility for the accuracy of the data and the completeness and fairness of this financial presentation belongs with the management of MERS. Sufficient internal accounting controls exist to provide reasonable assurance regarding the safekeeping of assets and fair presentation of the financial statements, supporting schedules, and statistical tables.

The report has been prepared in accordance with Generally Accepted Accounting Principles (GAAP) established by the Governmental Accounting Standards Board (GASB) and is likewise designed to comply with the reporting requirements of State law as provided by the Municipal Employees Retirement Act of 1984, section 36(2)(e)-(f); MCL 38.1536(2)(e)-(f).

There are five sections in this CAFR as follows:

* The Introductory Section contains the administrative organization, the Certificate of Achievement of Excellence in Financial Reporting, a letter of transmittal, and the Letter from the Chairperson of the Retirement Board.
* The Financial Section contains the Report of the Independent Auditors, Management's Discussion and Analysis, the basic financial statements of the system and certain required supplementary information.
* The Investment Section contains the report on investment activity, investment policies, investment performance and various investment schedules.
* The Actuarial Section contains the Actuary's Certification Letter and the results of the annual actuarial valuation.
* The Statistical Section contains significant data pertaining to the system.


## Summary of Financial Information

The following schedule presents the pension trust fund's additions and deductions for the years ended December 31, 2002, and December 31, 2001:

|  | $\underline{2002}$ | 2001 |
| :---: | :---: | :---: |
| Additions | \$ $(143,494,767)$ | \$ 88,416,727 |
| Deductions | 217,568,218 | 213,285,142 |
| Net Decrease | \$ $(361,062,985)$ | \$ $(124,868,415)$ |

The additions to the fund decreased by $\$ 231,911,494$ primarily because of an increase in the loss of $\$ 229,874,755$ in the net depreciation in the fair value of investments, a decrease in interest and dividend income of $\$ 12,350,822$, and an increase in employer and member contributions of $\$ 15,729,542$. The deductions increased by $\$ 4,283,076$ primarily due to an increase in benefit payments of $\$ 18,443,666$ and a decrease in transfers to the defined contribution program from the defined benefit plan of $\$ 13,312,864$.

## Plan Financial Condition

The funding objective of MERS' defined benefit pension plan is to meet the long-term benefit obligations that the participating municipalities and courts have promised to their members. MERS' goal is to have member contributions at an approximately level percent of member payroll over future decades. During the fiscal year ended December 31, 2001, the funding status of the actuarial accrued liability dipped from $86.1 \%$ to $84.3 \%$ due to the adoption of higher cost benefit plans by the membership and not the performance of the investment portfolio. Net assets available for pension benefits for MERS' defined benefit plan were $\$ 3.3$ billion as of December 31, 2002. Additional information regarding the financial condition may be found in the Actuarial Section of this report.

## Investment Activity

MERS' defined benefit plan portfolio produced a total return, net of expenses, of $-8.6 \%$ for the fiscal year ended December 31, 2002. This compares favorably to the policy benchmark with a return of $-8.3 \%$. While that comparison was flat for the past year, over the longer period of five years MERS has added an additional 20 basis points of value versus the markets. This is
significant in a declining U.S. equity market. With our $44 \%$ domestic equity weighting, the past three years have proven to be a very great challenge to our plan. Our policies still continue to operate as intended, and the fund exceeds the real rate of return hurdle of $3.5 \%$ over the rate of inflation over the longer ten-year period at $7.5 \%$. Additional information regarding the investment results for the year is included in the Investment Section of this report.

## Certificate of Achievement for Excellence in Financial Reporting

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to MERS for its Comprehensive Annual Financial Report (CAFR) for the fiscal year ended December 31, 2001. The Certificate of Achievement is a prestigious national award, recognizing conformance with the highest preparation standards for state and local government financial reports. In order to be awarded a Certificate of Achievement, a governmental unit must publish an easily readable and efficiently organized CAFR conforming to program standards. The CAFR must satisfy both GAAP and applicable legal requirements. A Certificate of Achievement is valid for a period of one year only. We believe our current report continues to conform to the Certificate of Achievement program requirements, and we are submitting it to GFOA for evaluation.

## Conclusion

This report is the product of the best efforts and cooperation of MERS' staff and advisors functioning under your leadership. It is intended to provide complete and reliable information that will facilitate the management decision-making process, serve as a means for determining compliance with legal requirements, and allow for the evaluation of responsible stewardship of the system. As in the past, we have received an unqualified opinion from our independent auditors on the financial statements included in this report. The opinion of the independent auditors can be found on page 16.

Copies of this report are provided to the Governor, each participating municipality and court, and will be posted on the MERS' Web site. Additional copies will be provided to the Secretary of the Senate and the Clerk of the House, and will be read into the Official Record of both Houses of the Legislature. We hope this information will be informative and useful to all the recipients.

I would like to take this opportunity to express my appreciation to you, the Board Members, the staff and all of our member municipalities and courts who have worked so diligently to assure the continued success of MERS.

$$
\begin{aligned}
& \text { Respectfully submitted, } \\
& \text { Drace Sh. Wagren }
\end{aligned}
$$

Anne M. Wagner<br>Chief Executive Officer

May 8, 2003

Dear Members:
On behalf of the Retirement Board, I am pleased to present the Municipal Employees' Retirement System's Fifty-Sixth Comprehensive Annual Financial Report (CAFR) for the fiscal year ended December 31, 2002. This report provides information on the financial status of your Retirement System and highlights the significant changes that occurred during the year.

Despite the difficult investment environment and sluggish economy, your Retirement System remains well funded and your promised benefits secure. The Board's investment policy of preserving the assets and maximizing the long-term growth of those assets using a diversified portfolio continues to be the primary focus in the coming fiscal year. Although the defined benefit portfolio generated a loss of $-8.6 \%$ net of expenses this past fiscal year, it outperformed the policy benchmark over the five-year period -- a very welcome accomplishment in a volatile investment market.

The new home office was completed in the spring. This was the culmination of a two-year project to provide a permanent residence for the Board and staff as well as a training facility for the membership. The finished building is a wonderful arrangement of space representing the collaborative efforts of the Board, staff, architect and building developer.

At the Annual Meeting, the delegates re-elected Gary Murphy and Raymond Klosowski to three-year terms on the Board as the employer and employee members, respectively. The nine members on the Retirement Board continue to work very conscientiously to serve the membership and fulfill their fiduciary responsibilities. MERS greatly benefits from their diverse expertise and experience. It is a privilege for me to serve as chairperson along with trustees of such high caliber and commitment.

In closing, I wish to thank the staff for continuing to maintain its high level of commitment and service to the Retirement System's participants. If you have any questions regarding this report, please contact us by calling 1-800-767-6377, or writing us at MERS, 1134 Municipal Way, Lansing, MI 48917.

Sincerely,

Dale M. Walker, Chairperson
Retirement Board

## MERS Retirement Board



Standing (left to right):
Raymond Klosowski
Gary Murphy
Barbara Fandell
Dennis Murphy
Bruce Johnson

Seated (left to right):
Kristen Wade
Dale Walker
Bruce Seymore*

## Not Pictured:

John Murphy

Dale Walker, Chairperson
Officer Member
City of Cadillac
Term Expires: December 31, 2004

Kristen Wade, Chairperson ProTem
Employee Member
Muskegon County
Term Expires: December 31, 2004
Bruce Johnson
Public Member
Term Expires: December 31, 2004

Raymond Klosowski
Employee Member
Isabella County
Term Expires: December 31, 2005
Dennis Murphy
Public Member
Term Expires: December 31, 2005
John Murphy
Officer Member
Cass County
Term Expires: December 31, 2003
Gary Murphy
Officer Member
City of East Lansing
Term Expires: December 31, 2005
Barbara Fandell
Employee Member
City of St. Louis
Term Expires: December 31, 2003
Bruce Seymore*
Retiree Member

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## LEGAL DEPARTMENT

## (left to right):

Lois Withers
Michael Moquin-Chief General Counsel Thomas Petroni


## Back Row:

Luke Huelskamp-Chief Financial Officer
Front Row (left to right):
Janette LaFleur
Sharlene Pallick
Jennifer Marshall



## INFORMATION SYSTEMS

Back Row (left to right):
Gary Davis

Front Row (left to right):
Michelle McMahon
Tama Allen-Chief Technology Officer Jennifer Cross

Not Pictured:
Nick Weller

## ADMINISTRATIVE SERVICES

## Back Row (left to right):

Christine Cotton
Steve Harry
Tom Lindemann
Colleen Wolter

Front Row (left to right):
Lynda Pittman
Ronald Beaton-Chief Administrative Officer Gale Larson
Ann Cool

## Not Pictured:

Laura Kramer


## OUTSIDE PROFESSIONAL SERVICES

Professional Consultants<br>Actuary<br>Gabriel Roeder Smith \& Company<br>Auditor<br>Andrews Hooper \& Pavlik, PLC<br>Defined Contribution Program Third-<br>Party Administrator<br>International City Management Association<br>Retirement Corporation (ICMA-RC)<br>Investment Custodian<br>The Northern Trust Company<br>Investment Performance Measurement<br>Consultant<br>The Northern Trust Company<br>Legal Counsel<br>Miller, Canfield, Paddock \& Stone, PLC<br>Legislative Consultants<br>Karoub Associates<br>Medical Advisor<br>Associated Physicians<br>Consulting Physicians<br>Security Lending Agent<br>The Northern Trust Company<br>Systems Implementation and<br>Maintenance<br>Beacon Application Systems<br>PeopleSoft<br>Thomas Shadle<br>\section*{Investment Managers}<br>\section*{Domestic Equity}<br>Armstrong Shaw Associates<br>Barclays Global Investors<br>Comerica Bank<br>Kennedy Capital Management<br>Trust Co of West (TCW) Asset Management<br>Wasatch Advisors<br>Wellington Management<br>World Asset Management<br>\section*{International Equity}<br>Barclays Global Investors<br>Lombard Odier<br>Domestic Fixed Income<br>Barclays Global Investors<br>Reams Asset Management<br>Western Asset Management<br>\section*{Real Estate}<br>Townsend Group (Manager)<br>AEW Capital Management<br>Hancock Timber Resources<br>KBS Realty Advisors<br>Lend Lease Rosen<br>J.P. Morgan Investment Management<br>Prudential Property Investment SSR Realty Advisors, Inc.<br>UBS Realty Investors, LLC<br>The Campbell Group<br>\section*{Private Equity}<br>Mesirow Financial<br>Credit Suisse First Boston (CSFB)

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Independent Auditor's Report

Municipal Employees' Retirement System of Michigan Retirement Board:
We have audited the accompanying statements of plan net assets of the Municipal Employees Retirement System of Michigan as of December 31,2002, and the related statements of changes in plan net assets for the year then ended. These fInancial statements are the responsibility of the management of the Municipal Employees' Retirement System of Michigan. Our responsibility is to express an opinion on these financial statements based on our audit. The prior year comparative information has been derived from the 2001 financial statements and, in our report dated May 22. 2002. We expressed an unqualified opmon on those financial statements.

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

In our opinion, the lmancial statements referred to above present fairly, in all material respects, the financial status of the Munceipal Employees' Retirement System of Michigan as of December 31, 2002, and the changes in its finaneol status for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

Our audit was conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The required supplementary information and supporting schedules listed in the table of contents are presented for the purpose of additional analysis and are not a required part of the basic financial statements. The required supplementary information and supporting schedules are the responsibility of the Municipal Employees' Retirement System of Michigan's management. The Schedules of Funding Progress and Employer Contributions and related notes and the supporting schedules have been subjected to the auditing procedures applied in our and it of the basic financial statements, and in our opinion, are fairly stated in all material respects when considered in relation to the baste financial statements taken as a whole.

The Managements Discussion and Analysis (MD\&A) is not a required part of the basie financial statements but is supplememal information required by the (iovermmental Accounting Standards Board. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of this supplemental information. However, we did not and it the information and express no opinion on it. The Introductory, Investment. Actuarial, and Statistical Sections were not audited by us and, accordingly, we express no opinion on those sections.

In accordance with Bomemment faulting Standards, we have also issued a report dated April 25. 2003 on out consideration of the Whmepal Employees' Retirement System of Michigan's mammal control over financial reporting and on our tests of is compliance with certain provisions of laws, regulations, and contracts. That report is an megral part of an audit performed in accordance with Government Auditing Standards and should be read in conjunction with this report in considering the results of our audit.


Okemos, Michigan
April 25. 2003

## MANAGEMENT'S DISCUSSION AND ANALYSIS

This narrative overview and analysis of MERS' financial condition for fiscal year ended December 31, 2002, is presented in conjunction with the Chief Executive Officer's Letter of Transmittal. The financial section is comprised of two basic financial statements with explanatory notes, two required supplementary schedules with explanatory notes, three expense schedules, summation of 2002 financial highlights, analysis of plan net assets, investment activity, historical trends, and funding status.

MERS was created to provide retirement, survivorship and disability benefits to qualified members and their beneficiaries. The cost of administering such benefits includes (1) payment of monthly benefits as designated by the defined benefit plan and defined contribution program, (2) refund of member contributions to employees that separate from employment, and (3) payment of all administrative and investment costs associated with administering the plans.

Financial Statements

1. Statement of Plan Net Assets (p. 22)
2. Statement of Changes in Plan Net Assets (p. 23)
3. Notes to Basic Financial Statements (p. 24)
4. Comparison Statement of Plan Net Assets (p. 19)
5. Comparison Statement of Changes in Plan Net Assets (p. 19)

Defined benefit plans and defined contribution programs are premised upon longterm investing; therefore, current financial statements alone do not provide the total perspective to properly assess the Retirement System's long-term financial condition.

The "Statement of Plan Net Assets" and "Statement of Changes in Plan Net Assets" provide the current consolidated financial condition of the 578 individual municipal defined benefit plans and 76 individual municipal defined contribution programs administered by MERS. The "Comparison Statement of Plan Net Assets" and "Comparison Statement of Changes in Plan Net Assets" provide a comparative summary of the financial condition of the Retirement System as a whole.

1. Schedule of Funding Progress (p. 35)
2. Schedule of Employer Contributions (p. 35)
3. Notes to the Schedules of Required Supplementary Information (p. 36)

The "Schedule of Funding Progress" shows the progress MERS has made in accumulating sufficient assets to pay future retirement benefits when due. The schedule sets forth the actuarially funded status of the plan with historical trends in funding. The "Schedule of Employer Contributions" shows the current annual employer contributions and the historical trend of employer contributions. From the long-term investment perspective, these schedules provide a better understanding of the changes over time in the funded status of the plan.

## Expense Schedules

1. Schedule of Administrative Expenses (p. 37)
2. Schedule of Investment Expenses (p. 38)
3. Schedule of Payments to Consultants (p. 39)

The expense schedules summarize all expenses associated with administering the defined benefit plan and defined contribution program.

## Financial Highlights

- Total net assets for both the defined benefit plan and defined contribution program decreased by $\$ 361$ million during the 2002 fiscal year. This was primarily due to net investment losses of $\$ 331$ million dollars.
- Pension benefits paid to retirees and beneficiaries increased $\$ 18$ million bringing total benefit payments to $\$ 206$ million.
- Refunds of employee contributions paid to members upon termination of employment decreased by $\$ 2$ million. A depressed job market and high unemployment contributed to fewer members terminating employment.
- Transfers from the defined benefit plan to the defined contribution program dropped by $\$ 13$ million. This was due in large part to the stock market decline that caused members to re-evaluate retirement options. Transfers from defined benefit to defined contribution dropped from $\$ 14$ million to less than $\$ 1$ million.
- Employee contributions increased $24 \%$ and employer contributions increased by $6 \%$.
- Administrative expenses totaled $\$ 7$ million, an increase of $22 \%$ compared to the 2001 fiscal year. Most of the increase was due to increased salaries and health insurance premiums, operational and moving costs for MERS' new building, depreciation related to a software upgrade and new equipment, and implementation of a new records retention program to track records for MERS' 59,343 defined benefit plan and 4,743 defined contribution program members.


## SUMMARY COMPARISON STATEMENT OF PLAN NET ASSETS

|  | $\begin{array}{c}\text { As of } \\ \text { December 31, 2002 }\end{array}$ | $\begin{array}{c}\text { As of } \\ \text { December 31, 2001 }\end{array}$ | $\begin{array}{c}\text { Increase } \\ \text { (Decrease) } \\ \text { Amount }\end{array}$ | $\begin{array}{c}\text { Increase } \\ \text { (Decrease) }\end{array}$ |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Assets |  |  |  | $(5,938,673)$ | $-2.00 \%$ |
| Percent |  |  |  |  |  |$\}$

Liabilities

| Purchase of Investments | $195,095,671$ | $267,548,402$ | $(72,452,731)$ | -27.08 |  |
| :---: | ---: | ---: | ---: | ---: | ---: |
| Securities Lending Collateral | $260,060,272$ | $262,950,144$ | $(2,889,872)$ | -1.10 |  |
| Administrative and Investment Costs | $3,014,999$ | $3,442,366$ | $(427,367)$ | -12.41 |  |
| Total Liabilities | $458,170,942$ | $533,940,912$ | $(75,769,970)$ | $-14,19$ |  |
| Net assets held in trust for pension benefits $\$ 13,370,065,203 \$$ | $3,731,128,188$ | $(361,062,985)$ | $-9.68 \%$ |  |  |
|  |  |  |  |  |  |

## SUMMARY COMPARISON STATEMENT OF CHANGES IN PLAN NET ASSETS

|  | Year ended <br> December 31, 2002 |  | Year ended <br> December 31, 2001 |  | Increase (Decrease) Amount | Increase (Decrease) Percent |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Additions |  |  |  |  |  |  |
| Contributions | \$ | 181,178,490 | \$ | 165,448,948 | \$ 15,729,542 | 9.51\% |
| Transfers from Defined Benefit Plan |  | 491,096 |  | 13,803,960 | $(13,312,864)$ | -96.44 |
| Transfers from Other Plans and Other Items |  | 3,557,813 |  | 826,992 | 2,730,821 | $330: 21$ |
| Investment net loss-investing activities |  | $(330,611,876)$ |  | $(93,746,635)$ | $(236,865,241)$ | 252.67 |
| Investment net income-securities lending |  | 803,823 |  | 1,013,222 | $(209,399)$ | -20.67 |
| Miscellaneous Income |  | 1,085,887 |  | 1,070,240 | 15,647 | 1.46 |
| Total Additions |  | $(143,494,767)$ |  | 88,416,727 | (231,911,494) | -262.29 |
| Deductions |  |  |  |  |  |  |
| Benefits |  | 206,341,439 |  | 187,897,773 | 18,443,666 | 9.82 |
| Refunds of Contributions |  | 3,366,464 |  | 5,413,698 | $(2,047,234)$ | -37.82 |
| Special Expenses and Fees |  | 366,273 |  | 412,989 | $(46,716)$ | -11.31 |
| Transfers to Defined Contribution Program |  | 491,096 |  | 13,803,960 | $(13,312,864)$ | -96.44 |
| Administrative Expense |  | 7,002,946 |  | 5,756,722 | 1,246,224 | 21.65 |
| Total Deductions |  | 217,568,218 |  | 213,285,142 | 4,283,076 | 2.01 |
| Net Decrease |  | $(361,062,985)$ |  | (124,868,415) | $(236,194,570)$ | 189.15 |
| Net assets held in trust for pension benefits |  |  |  |  |  |  |
| Balance Beginning of Year |  | 3,731,128,188 |  | 3,855,996,603 | $(124,868,415)$ | -3.24 |
| Balance End of Year | \$ | 3,370,065,203 |  | 3,731,128,188 | \$ $(361,062,985)$ | -9.68\% |

## Analysis of Plan Net Assets and Changes in Net Assets

Combined plan net assets declined by $\$ 361$ million over the last fiscal year. Looking at additions to and deductions from plan net assets, this decline was attributable to both economic conditions (the stock market's decline) and municipalities increasing benefit
multipliers resulting in higher benefit payments. Even though the stock market's decline has impacted net assets, MERS' actuary uses a five-year smoothing method to record market gains and losses to lessen the impact of the stock market's decline. Also contributing to the decline in assets was a $10 \%$ increase in pension benefit payments to a greater number of retirees and post-retirement cost-of-living increases.

Employer contributions increased approximately $\$ 7$ million because of higher actuarial contribution rates resulting from salary increases, benefit enhancements, and an increase in the number of employees. Member contributions also increased approximately $\$ 8$ million for the same reasons. The major reason contributions increased was because employers adopted better benefit plans for their employees, and employers have been forced to shift more of the contribution requirements onto employees to help pay for the better benefits. The current trend for higher contribution percentage increases will likely continue in the near future.

MERS had Capital Assets of approximately $\$ 3$ million, the bulk of which was for software and servers needed to run the Retirement System. Assets increased by $\$ 1.6$ million due in large part to a software upgrade.

MERS had $\$ 3$ million in Other Assets associated with the construction and design of the new office building in 2001. In 2002, the building was completed, and a total of $\$ 6.9$ million was transferred into the real estate portion of MERS' investment portfolio.

MERS does not have any long-term liabilities. The bulk of MERS' liabilities at the end of the year related to investment purchases that did not settle until 2003.

## Investment Activities

Although the total fund investment performance on a comparative basis to benchmarks was good, the real negative return of $8.6 \%$ fell below the long-term net $8 \%$ actuarial return assumption target for the year. However, on both a three and five year basis, the average returns of $-4.6 \%$ and $3.0 \%$, respectively, reasonably compare to the benchmarks. Net investment losses (net decrease in fair value plus investment earnings, less investment administrative expenses) increased by $256 \%$ compared to the December 31, 2001, fiscal year. The stock market is now in its third year of negative returns. MERS' investment portfolio performance placed it slightly below median within the Northern Trust Public Fund Universe for public fund returns for the fiscal year and ranked it in the $60^{\text {th }}$ percentile. MERS ranked $42^{\text {nd }}$ and $63^{\text {rd }}$ for the two and three year periods.

Investments are managed to control the extent of downside risk to which assets are exposed, while maximizing long-term gain potential. Portfolio diversification is an important element of investment risk control. This control allows the Retirement System to limit the impact of adverse market conditions.

Investment activity is governed by the "prudent person rule." The prudent person rule establishes a standard for all fiduciaries that includes anyone who has authority with respect to the Retirement System. The prudent person rule states that "fiduciaries shall discharge their duties solely in the interest of the retirement system participants and beneficiaries and with the degree of diligence, care, and skill that a prudent person would ordinarily exercise under similar circumstances."

## Historical Trends

Accounting standards require that the "Statement of Plan Net Assets" state asset values at fair value and include only benefits and refunds due plan members and beneficiaries and accrued investment and administrative expenses as of the reporting date. Information regarding the actuarial funded status of the pension fund is provided in the "Schedule of Funding Progress." The asset value stated in the "Schedule of Funding Progress" is the actuarial value of assets as determined by calculating the ratio of market value to book value of assets over a five-year period. The funded ratio (Actuarial Value of Assets divided by the Actuarial Liability) continues to remain at $84 \%$. This percentage has not materially changed over the last six years. The actuarial assumptions used in the most recent valuation are identified in the "Notes to the Schedules of Required Supplementary Information."

Annual required contributions of employers versus contributions actually made by employers are set forth in "Schedule of Employer Contributions." This schedule shows that employers are consistently meeting their necessary obligations to fund the plans.

MERS' overall financial condition did not improve for the fiscal year ended 2002. The market downturn (due in part to the economic recession affecting the global economy) caused MERS' financial position to decline to some extent. Increased pension benefit payments to retirees also added to the decline, but had a much smaller impact. Market downturns have historically been part of the economic process and will remain part of the process in the decades to come. The plan, itself, remains stable and viable for the years to come.

## Funding Status

The MERS' plan is not $100 \%$ funded, but the annual contributions are continuously being made at the actuarially determined rate to reach full funding. This will insure that there are sufficient assets to meet all expected future obligations to participants. The actuarial method for calculating accrued liability for all plans is "Entry Age Normal" with the objective of keeping employer contributions approximately level as a percent of member payroll over time. During the fiscal year ended December 31, 2001, MERS' funding status of the actuarial accrued liability dipped from $86.1 \%$ to $84.3 \%$ due to the adoption of higher cost benefit plans by the municipalities and not a decline in the equity market.

A detailed discussion of the funding method is provided in the Actuarial Section of the CAFR. Based upon the valuation results and in accordance with actuarial principles of level percent of payroll financing, MERS continues to be in sound financial health.

## FINANCIAL STATEMENTS

STATEMENT OF PLAN NET ASSETS
As of December 31, 2002

Assets
Cash and Short-Term Investments
Receivables
Employer Contributions
Plan Member Contributions
Sale of Investments
Investment Income Loans/Other

Total Receivables
Investments, at fair value Domestic Fixed Income Domestic Equities International Equities Real Estate Venture Capital \& Partnerships Balanced Funds Total Investments

Invested Securities Lending Collateral
Other Assets
Prepaid Expenses
Fixed Assets, at cost, net of accum. depreciation
of $\$ 7,166,666$ in 2002 and $\$ 6,169,145$ in 2001
$\quad$ Total Assets

Liabilities


The "Schedule of Funding Progress" is presented in the Required Supplementary Information of the Financial Section of this report.
The accompanying notes are an integral part of these Financial Statements

## STATEMENT OF CHANGES IN PLAN NET ASSETS For the Fiscal Year Ended December 31, 2002

## Additions

Contributions
Employer Contributions
Plan Member Contributions
Transfers from Defined Benefit Plan
Employer
Plan Member
Transfers from Other Plans and Other Items
Total Contributions and Transfers
Investment Income
Net appreciation (depreciation) in fair value of plan investments
Interest Income
Dividend Income
Real Estate Operating Income, net
Commission Recapture Income
Defined Contribution Income (net of fees)
Less Investment Expenses
Net Investment Income (Loss)
From Security Lending Activities
Security Lending Income
Security Lending Expenses
Borrower Rebates
Management Fees
Total Securities Lending Expenses
Net Income from Security Lending Activities
Total Net Investment Income (Loss)
Miscellaneous Income
Total Additions
Deductions
Benefits

|  | Year ended December 31, 2002 |  |  |
| :---: | :---: | :---: | :---: |
| Defined | Defined | Total |  |
| Benefit | Contribution | Pension |  |
| Plan | Plan | Trust Funds |  |


| Year Ended |
| :---: |
| December 31, 2001 |
| Total |
| Pension |
| Trust Funds |


| $\begin{array}{r} \$ \quad 127,802,230 \\ 39,625,328 \end{array}$ | \$ 10,241,672 | \$ | 138,043,902 |
| :---: | :---: | :---: | :---: |
|  | 3,509,260 |  | 43,134,588 |
|  | 438,040 |  | 438,040 |
|  | 53,056 |  | 53,056 |
|  | 3,557,813 |  | 3,557,813 |
| 167,427,558 | 17,799,841 |  | 185,227,399 |

$(392,267,847)$
$(10,798,653)$
$(403,066,500)$

| $\$ 130,734,218$ |
| ---: |
| $34,714,730$ |
| $12,922,048$ |
| 881,912 |
| 826,992 |
| $180,079,900$ |

$(173,191,745)$

| 45,714,662 |  | 45,714,662 | 65,499,175 |
| :---: | :---: | :---: | :---: |
| 30,999,530 |  | 30,999,530 | 23,565,838 |
| 3,852,327 |  | 3,852,327 | 2,351,098 |
| 770,744 |  | 770,744 | 471,718 |
|  |  |  | $(4,154,015)$ |
| (310,930,584) | $(10,798,653)$ | (321,729,237) | (85,457,931) |
| 8,882,639 |  | 8,882,639 | 8,288,704 |
| (319,813,223) | $(10,798,653)$ | $(330,611,876)$ | (93,746,635) |
| 4,902,231 |  | 4,902,231 | 11,848,291 |
| 3,755,385 |  | 3,755,385 | 10,400,842 |
| 343,023 |  | 343,023 | 434,227 |
| 4,098,408 |  | 4,098,408 | 10,835,069 |
| 803,823 |  | 803,823 | 1,013,222 |
| (319,009,400) | $(10,798,653)$ | $(329,808,053)$ | (92,733,413) |
| 1,085,887 |  | 1,085,887 | 1,070,240 |
| (150,495,955) | 7,001,188 | $(143,494,767)$ | 88,416,727 |
| 200,793,802 | 5,547,637 | 206,341,439 | 187,897,773 |

Refunds of Contributions
Employer
Plan Member
Special Expenses and Fees
Transfers to Defined Contribution Program
Employer
Plan Member
Administrative Expense
Total Deductions
Net Increase (Decrease)
Net assets held in trust for pension benefits
Balance Beginning of Year
Balance End of Year


The accompanying notes are an integral part of these Financial Statements.

## NOTES TO BASIC FINANCIAL STATEMENTS

Fiscal Year Ended December 31, 2002

## 1. Reporting Entity and Plan Description

The Municipal Employees' Retirement System of Michigan (MERS) is an agent multipleemployer public employee pension plan created under Public Act 135 of 1945, as repealed and replaced by Public Act 427 of 1984. MERS was established to provide retirement, survivor and disability benefits on a voluntary basis to local government employees in Michigan. The MERS Plan Document provides for both a defined benefit plan and a defined contribution program.

On August 15, 1996 (pursuant to 1996 PA 220), MERS became an independent public nonprofit corporation (an instrumentality of the participating municipalities and courts). Prior to that time MERS was a component unit of the State of Michigan and operated under the Department of Management and Budget. MERS is now administered solely by a ninemember Retirement Board, each of whom, except for the retiree member and the Retirement Board appointees, shall be from a different county at the time of appointment:

- Two members appointed by the Retirement Board who have knowledge or experience in retirement systems, administration of retirement systems, or investment management or advisory services.
- One member who is a retiree of the Retirement System, nominated by the Board and elected by the delegates to an annual meeting of the Retirement System.
- Three members of the Retirement System, who are officers of a participating municipality or of a participating court, who shall be designated as officer Board members.
- Three employee members of the Retirement System who are not officers of a participating municipality or of a participating court, who shall be designated as employee Board members.

The regular term of office for members of the Retirement Board is three years. Members of the Retirement Board serve without compensation with respect to their duties, but are reimbursed by the Retirement System for their actual and necessary expenses incurred in the performance of their duties.

As of December 31, 2002, there were 578 participating municipalities in the defined benefit plan:
Counties ..... 64
Cities and Villages ..... 235
Townships ..... 54
County Road Commissions ..... 56
Authorities, Districts and Others ..... 153
Closed Groups ..... 16
Total ..... $\underline{578}$

Any municipality within the State may elect to become a participating member of MERS by a majority vote of the municipality's governing body or an affirmative vote by the qualified electors. A municipality may elect to terminate participation by an affirmative vote of the qualified electors. Changes in benefit coverage are available to bargaining units after approval by a majority vote of the municipality's governing body.

As of December 31, 2002, total membership for the defined benefit plan consisted of:

Retirees and Beneficiaries Currently Receiving Benefits Retirement Annuities 13,567
Survivor Annuities 3,027
Disability Annuities 936
Total
Vested Deferred Members 17,530

Current Active Members 4,760

Total Membership 37,053

59,343

Defined benefit plans and provisions are established by the Retirement Board. All benefits vest after ten years of service, except that benefits may vest after eight or six years of service if adopted by the municipality's governing body. The standard retirement age is 60 years; however, members may retire with several combinations of age and years of service to receive reduced early retirement benefits. Municipalities may adopt various other benefit plans that allow retirement at an earlier age with unreduced benefits based upon combinations of age and years of service, or just years of service. MERS also provides nonduty disability and survivorship benefits to members after vesting requirements are met. The vesting requirements provision is waived for duty disability and duty death benefits. Benefits are paid monthly over the member's or surviving beneficiary's lifetime equal to a specific


#### Abstract

percentage of the member's final average compensation times the number of years of credited service. The specific percentage depends on the benefit plan or programs adopted by each municipality for its employees. See Note 6 for benefit descriptions in the defined contribution program.


Pursuant to the Constitution of the State of Michigan:

> The accrued financial benefits of each pension plan and retirement system of the State and its political subdivisions shall be a contractual obligation thereof which shall not be diminished or impaired thereby. Financial benefits arising on account of service rendered in each fiscal year shall be funded during that year and such funding shall not be used for financing unfunded accrued liabilities.

Members contribute to the Retirement System at rates that range from 0 to $10 \%$ depending on the contribution program adopted by the municipality. If an employee leaves employment or dies before becoming eligible for retirement benefits, accumulated employee contributions plus interest are refunded to the employee or designated beneficiary upon application.

## 2. Summary of Significant Accounting Policies

## Reporting Entity

The Retirement Board is responsible for administration of the Retirement System, has fiduciary responsibility for the investment of assets and oversees all funds included in MERS' financial statements. The Board appoints the Chief Executive Officer who manages and administers the Retirement System under the supervision and direction of the Board.

Since MERS is an independent public corporation, its financial statements are not included in any other organization's financial statements. MERS is the only entity included in this financial report.

## Basis of Accounting

The financial statements for MERS are prepared on the accrual basis in accordance with U.S. Generally Accepted Accounting Principles (GAAP). Plan member and employer contributions are recognized in the period in which the employee provides service. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

## GASB 27

Governmental Accounting Standards Board (GASB) Statement No. 27, "Accounting for Pensions by State and Local Governmental Employers," requires certain changes in reporting pensions by employers. The following section is required and pertains to MERS' staff only. Prior to separation from the State of Michigan, the pension liability for MERS' staff was the obligation of its official employer, the State of Michigan. MERS does not have any pension liability for staff prior to August 25, 1996, when independent payroll processing began.

The Retirement Board, as an employer, elected to become a participating municipality in MERS to provide pension benefits for MERS' staff. Vesting occurs after six years of credited service. Normal retirement age is 60 ; however, an employee may retire at age 55 with 30 years of credited service. The annual pension benefit is based on the employee's years of credited service multiplied by $2 \%$ times the Final Average Compensation (FAC). FAC is the average of the three highest consecutive years of compensation. Employees contribute $2 \%$ of their compensation. Employer contributions were $8.46 \%$ of compensation in 2002.

The following pension information for GASB 27 applies to MERS' staff only:

## Actuarial Accrued Liability from December 31, 2001, and December 31, 2000, Actuarial Valuations

Retirees and Beneficiaries Currently Receiving
Benefits

Vested Deferred Members

| $\underline{\mathbf{2 0 0 1}}$ | $\underline{\mathbf{2 0 0 0}}$ |
| ---: | ---: |
| $\$ 145,363$ | $\$ 146,656$ |
| 14,781 | 17,584 |

Accumulated Employee Contributions, Including Allocated Investment Income

Employer Financed

$$
132,313
$$ 98,501

Current Members

Total Actuarial Accrued Liability
951,508
618,637
1,243,965
881,378

Net Assets Available for Benefits at Actuarial Value ( $\$ 774,577$ and $\$ 625,576$ at Market Value for December 31, 2001, and 2000, respectively)

Unfunded Actuarial Accrued Liability $1,068,314 \quad 775,096$
\$ 175,651 \$ 106,282

Three-Year Trend Information

| Fiscal <br> Period Ended | Annual Pension Cost (APC) | Percentage of APC Contributed | Net Pension Obligation |
| :---: | :---: | :---: | :---: |
| December 31, 2000 | 122,552 | 100 | -0- |
| December 31, 2001 | 130,359 | 100 | -0- |
| December 31, 2002 | 146,906 | 100 | -0- |

Schedule of Funding Progress

|  | Actuarial | Actuarial Accrued | Unfunded |  |  | UAAL As A \% of |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actuarial | Value of | Liability | (Over) AAL | Funded | Covered | Covered |
| Valuation | Assets | (AAL) | (UAAL) | Ratio | Payroll | Payroll |
| Dec. 31 | (a) | (b) | (b-a) | (a/b) | (c) | ( $(\mathrm{b}-\mathrm{a}) / \mathrm{c}$ ) |
| 1999 | 549,831 | 580,943 | 31,112 | 94.6 | 1,366,768 | 2.28\% |
| 2000 | 775,096 | 881,378 | 106,282 | 87.9 | 1,624,802 | 6.54\% |
| 2001 | 1,068,314 | 1,243,965 | 175,651 | 85.9 | 1,970,436 | 8.91\% |

## GASB 34

GASB Statement No. 34, Basic Financial Statements and Management's Discussion and Analysis has been adopted by MERS for the fiscal year ended December 31, 2002. The addition of the Management's Discussion and Analysis was the primary change required to implement the Statement.

## Fair Value of Investments

In accordance with GASB 25, plan investments are presented at fair value. Short-term investments are valued at cost plus accrued interest that approximates fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Corporate bonds not traded on a national or international exchange are based upon equivalent values of comparable securities with similar yield and risk. Independent appraisals are the basis of the fair value of real estate. Other investments that do not have an established market are recorded at an estimated fair value.

## Property and Equipment

Property and equipment are carried at cost, less accumulated depreciation. Items of software, equipment and leasehold improvements are capitalized if the value exceeds $\$ 5,000$. These assets are depreciated on a straight-line basis. Estimated lives are either three or five years. Office equipment, software and computers have a three-year life, while leasehold improvements have a five-year life.

## Other Assets

Other assets include costs through December 31, 2001, of land, design and construction associated with the new office building. The approximate $\$ 6.9$ million cost of the new office development project has been made an investment asset in the defined benefit real estate portfolio. MERS accounts for this project the same as all investments in the real estate portfolio.

## "Total" Columns on Statements

"Total" columns on the "Statement of Plan Net Assets" and "Statement of Changes in Plan Net Assets" are considered memorandum only and are presented to facilitate financial analysis. Amounts in these columns do not present the plan net assets and changes in plan net assets in conformity with U.S. GAAP, and such data is not comparable to a consolidation. Transactions between the defined benefit plan and the defined contribution program have not been eliminated from the "total" columns.

## 3. Contributions and Reserves

## Contributions

Funding requirements are actuarially determined using the "Entry Age Normal" actuarial cost method and are based upon the benefit program(s) selected by the municipality. Some municipalities fund their entire pension obligations solely from employer contributions. Other municipalities' pension obligations are jointly funded by the employees and the employer. Monthly employee contributions are based upon a percentage of actual compensation as determined by an annual actuarial valuation. Employer contributions are based upon projected compensation as determined by an annual actuarial valuation. Employee contributions are held in individual member accounts that are currently credited with $4 \%$ interest annually. The employee contribution rates vary from $0 \%$ to $10 \%$ according to the plan selected by the municipality. A "Schedule of Employer Contributions" is included in the "Required Supplementary Information."

## Reserves

The following Reserves have been established pursuant to the MERS' Plan Document. A "Schedule of Changes in Reserves" is included in the Statistical Section.

Reserve for Employee Contributions: Member contributions and interest are credited to this reserve. Also included is purchase of service credit or repayment of previously refunded contributions. This reserve is reduced by amounts refunded to a member who separates from service or is transferred into the "Reserve for Employer Contributions and Benefit Payments" upon retirement. Interest is credited to each member's account in December of each year based on the accumulated balance from the prior December 31. The current allocation rate of interest is set by the Board at $4 \%$. The December 31, 2002, balance was $\$ 371,461,312$. The "Reserve for Employee Contributions" was fully funded as of the December 31, 2001, actuarial valuation.

Reserve for Employer Contributions and Benefit Payments: All employer contributions are credited to this reserve. Net income is allocated to this reserve from the "Reserve for Expenses and Undistributed Investment Income." At retirement, a member's accumulated contributions, if any, including interest are transferred into this reserve. Monthly benefits paid to retirees reduce this reserve. The December 31, 2002, balance was $\$ 2,913,843,021$. The unfunded liability was $\$ 749,476,105$ (based on the actuarial value of assets) as of the December 31, 2001, actuarial valuation.

Reserve for Expenses and Undistributed Investment Income: All investment earnings and all other monies received that are not dedicated to other reserves are credited to this reserve. All administrative and investment expenses are paid from this reserve. Transfers are made to the "Reserve for Employer Contributions and Benefit Payments" at allocation rates determined by the Board. The "Reserve for Expenses and Undistributed Investment Income" was allocated at $100 \%$ to the "Reserve for Employer Contributions and Benefit Payments" in 2002 leaving a zero balance at December 31, 2002.

## 4. Investments

The Retirement Board has the fiduciary responsibility and authority for the investment portfolio. Various professional investment managers are contracted to manage the Retirement System's assets. All investment decisions are subject to statutory regulations imposed under the Michigan Public Employees' Retirement System Investment Act, 1965 PA 314, as amended, and the investment policy established by the Board. Michigan law allows diverse investment in stocks, corporate and government bonds, mortgages, real estate, alternative investments, and other investments. The Act has prudence standards and requires that the assets of a retirement system be invested solely in the interest of the participants and beneficiaries. The investments shall be made for the exclusive purpose of providing benefits to the participants and the participants' beneficiaries and defraying reasonable expenses of the retirement system.

The Retirement Board's investment policy requires independent performance measurement of investment managers and establishes total return objectives for the total portfolio and major categories of investments. As of December 31, 2002, all securities held met the required statutory provisions and Board policy. As of the same date, no investments were in default or subject to bankruptcy proceedings that would have a material effect on the plan. MERS did not hold a single organization's securities that exceeded $5 \%$ of the plan's net assets available for benefits as of December 31, 2002.

## Cash

Cash deposits are classified according to credit risk to give an indication of the level of risk assumed by MERS. For custodial credit risk, the bank balances of deposits are disclosed.

Category 1 Insured or collateralized with securities held by MERS or its agent in MERS' name.

Category 2 Collateralized with securities held by the pledging financial institution's trust department or agent in MERS' name.

Category 3 Uncollateralized or collateralized with securities held by the pledging financial institution or by its trust department or agent but not in MERS' name.

As of December 31, 2002, MERS' cash included:
(Expressed in thousands)


## Securities Lending

MERS' policy authorizes participation in a securities lending program administered by its global custodian, the Northern Trust Company. MERS receives income from the loan of securities in addition to the income, which accrues to the Retirement System as owner of the securities. The securities loans are open contracts and, therefore, could be terminated at any time by either party. The borrower collateralizes the loan with either cash or securities of $102 \%$ of market value plus accrued interest on domestic securities loaned, and $105 \%$ of market value plus accrued interest on international securities loaned. Cash collateral is invested for MERS in a dedicated short-term investment fund consisting of investment grade fixed income securities. The custodian provides for full indemnification to MERS for any losses that might occur in the event of borrower default resulting from negligence or intentional misconduct. The securities on loan are marked to market daily to ensure the adequacy of the collateral. There are no restrictions on the amount of securities that can be lent at one time. Neither MERS nor the custodian has the ability to pledge or sell collateral securities delivered unless the borrower is in default.

MERS also invests in two index funds that participate in securities lending on a pooled basis.

MERS has neverexperienced a loss on securitie lending transactions resulting from the default of a borrower or lending agent since it commenced lending securities in March 1995. The average term of loan was 22 days as of December 31, 2002, and produced net income of $\$ 803,823$ in 2002.

The collateral held and the fair value of securities on loan as of December 31, 2002, was as follows:

## Dollars In Thousands

Fair Value of
Securities on Loan
\$ 253,604,944
23,799,711
\$ 277,404,655

Nature of
Collateral

## Collateral Held

Cash
Non-Cash \$ 260,060,272
24.273.782
\$284,334,054

## Derivatives

In accordance with investment policy, the active international manager may, when deemed prudent, enter into forward foreign currency exchange contracts in the international portfolio to match settlement deadlines or to take advantage of favorable currency moves in the market. Forward contracts are used to hedge against changes in the exchange rates related to foreign equities, primarily denominated in European and Asian currencies. This method is used to reduce the risk of currency exposure in the portfolio. As of December 31, 2002, there were no positions in forward currency contracts held in the portfolio.

Derivatives are neither used for speculation nor are they used to leverage the investment portfolio. The Retirement System does not use swap agreements, stock options, caps/floors, or floating rate securities that are priced from underlying collateral.

## Categories of Investment Risk

The following table represents the total investments held as of December 31, 2002, categorized to give an indication of the level of risk assumed by MERS. All investments are governed primarily by an investment doctrine known as the "prudent person rule." The "prudent person rule," establishes a standard for all fiduciaries that includes anyone who has authority with respect to the funds. The GASB Statement Number 3 requires disclosure of investment securities in the following three categories of custodial risk. The category descriptions follow.

Category 1 Insured or registered securities that are held by MERS or its agent in MERS' name.

Category 2 Uninsured and unregistered securities collateralized, with securities held by the counterparty's trust department or agent in MERS' name.

Category 3 Uninsured and unregistered securities, with securities held by the counterparty or its trust department or agent, but not in MERS' name.

A security, for purposes of classification in the above categories, is a transferable financial instrument that evidences ownership or creditorship. Securities do not include investments made with another party, real estate or direct investments in mortgages and other loans. Investments in open-end mutual funds, annuity contracts, and guaranteed investment contracts are also not considered securities for purposes of custodial credit risk classification. Such investments are shown as not subject to classification.

There are no Category 2 investments. The Real Estate section consists of real estate equity holdings (REITS) and real estate. The defined contribution program assets are participantdirected mutual funds that are not subject to GASB Statement No. 3 credit risk classification. The Short-Term investment funds that are Category 3 investments are in foreign currencies. The Domestic Equities, Fixed Income, and International Equities that are not subject to classification below are investments that are unregistered, pending trades, open-end mutual index funds, guaranteed investment contracts and direct investments in mortgages and other loans.

Credit Risk of Investments as of December 31, 2002:

| (Expressed in Thousands) | Category |  |  | Securities not subject to Classification | Fair Values |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Domestic Equities | 1 | 2 | 3 |  |  |
|  | \$ 974,125 |  |  | \$ 425,276 | \$ 1,399,401 |
| Fixed Income | 524,116 |  | 863 | 654,974 | 1,179,953 |
| International Equities | 288,264 |  |  | 97,648 | 385,912 |
| Real Estate | 76,393 |  |  | 115,586 | 191,979 |
| Commercial Paper | 266,068 |  |  |  | 266,068 |
| Short-Term Investment |  |  |  |  |  |
| Private Equity \& |  |  |  |  |  |
| Defined Contribution |  |  |  |  |  |
| Collateral |  |  |  | 260,060 | 260,060 |
|  | \$2,128,966 | \$0 | \$5,779 | \$1,634,913 | \$3,769,658 |
|  | Reconciliation to Investments on Statement of Plan Net Assets |  |  |  |  |
|  |  |  | Totals above |  | \$3,769,658 |
|  |  |  | Less Commercial Paper |  | -266,068 |
|  |  |  | Less Short Term |  | -7,853 |
|  |  |  | Less Securities Lending |  | -260,060 |
|  |  |  | Cash |  | \$3,235,677 |

## 5. Commitments and Contingencies

Member benefit claims are processed through established administrative procedures. Members can appeal adverse determinations to the Board or courts. These administrative appeals and court cases arise in the normal course of business. MERS does not anticipate any material loss as a result of adverse claims. Furthermore, if a member is successful on appeal of a denied claim, the cost is ultimately borne by the affected participating municipality's funding obligation. MERS maintains liability insurance for workers' compensation, owned and leased vehicles, blanket property, fiduciary, fidelity, and faithful performance to cover risk of loss, such as personal injury to employees or others, property damage, or other liability.

## 6. Defined Contribution Program

## Program Description

The MERS' defined contribution program became operative July 8, 1997, under Section 401 (a) of the Internal Revenue Code. MERS has contracted with International City Management Association- Retirement Corporation (ICMA-RC) to serve as the third-party administrator for the program. The program is available to all of MERS' participating municipalities and may be adopted on a division-by-division basis. Program provisions and requirements are specified in the MERS' Plan Document.

Contributions to the defined contribution program are remitted directly to ICMA-RC by the participating municipalities and are separate from contributions made to the defined benefit plan. Both employer contributions and employee voluntary defined contributions are governed by the percentages allowable under the Internal Revenue Code. Members of the defined contribution program cannot change their contribution as a percent of payroll after enrollment.

Participating municipalities may offer current employees an opportunity to transfer from the defined benefit plan to the defined contribution program. MERS will then transfer the present value of the employee's accrued benefit in the defined benefit plan to the employee's account in the defined contribution program (at a stipulated funded ratio which shall not exceed 100\%). Members direct their contributions to various investment options offered by ICMA-RC and may transfer their account balances between investment categories or make changes to the percentage allocation on a daily basis. ICMA-RC offers a variety of investment opportunities for the defined contribution program. The Vantage Trust Funds include nine actively managed funds; five index funds, and five model portfolio funds. The Mutual Fund Series includes 16 segregated accounts, each with a different investment strategy.

As of December 31, 2002, there were 76 municipalities that had adopted the defined contribution program, with 4,743 member accounts totaling $\$ 84.8$ million.

## Significant Accounting Policies

The defined contribution financial statements are prepared using the cash basis of accounting (which approximates the accrual basis of accounting). Program investments are presented at fair value. Program participants select from 38 investment options.

## Reserve for Defined Contribution Program

All additions to and deductions from defined contribution program assets are recorded in the "Reserve for Defined Contribution Program."

# REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF FUNDING PROGRESS (Dollars in Millions) 

| Actuarial | Actuarial | Actuarial Accrued |  |  |  | UAAL as a <br> Percentage |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Valuation | Value | Liability | AAL | Funded | Covered | over |
| Date | Of Assets | (AAL) | (UAAL) | Ratio | Payroll | Payroll |
| Dec. 31 | (a) | (b) | (b-a) | ( $\mathrm{a} / \mathrm{b}$ ) | (c) | $((b-a) / c)$ |
| 1996 | 2,416.4 | 2,999.0 | 582.6 | 80.6\% | 1,025.2 | 56.8\% |
| 1997* | 2,692.7 | 3,285.2 | 592.5 | 82.0\% | 1,087.3 | 54.5\% |
| 1998 | 3,030.4 | 3,592.0 | 561.6 | 84.4\% | 1,163.1 | 48.3\% |
| 1999 | 3,464.9 | 3,835.5 | 370.6 | 90.3\% | 1,179.3 | 31.4\% |
| 2000 | 3,787.2 | 4,397.0 | 609.8 | 86.1\% | 1,226.0 | 49.7\% |
| 2001 | 4,034.4 | 4,783.9 | 749.5 | 84.3\% | 1,271.6 | 58.9\% |

In 1997, economic assumptions were revised.

## SCHEDULE OF EMPLOYER CONTRIBUTIONS (Dollars in Millions)

| Fiscal Year (See Note 1) | Annual Required Contribution | Accelerated Funding Credit | Percentage Contributed Before Credit | Percentage Contributed After Credit |
| :---: | :---: | :---: | :---: | :---: |
| 1997 | 110.7 | 24.6 | 82\% | 106\% |
| 1998 | 116.9 | 14.3 | 99\% | 113\% |
| 1999 | 119.6 | 6.8 | 111\% | 118\% |
| 2000 | 124.9 | 8.4 | 106\% | 113\% |
| 2001 | 118.2 | 14.5 | 103\% | 118\% |
| 2002 | 124.7 | 7.7 | 103\% | 118\% |

See notes to the Schedules of Required Supplementary Information.

## NOTES TO THE SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

1. Actuarial Valuation - Actuarial valuations are prepared annually as of December 31 for each participating municipality. To facilitate budgetary planning needs, employer contribution requirements are provided for the municipality's unique fiscal year that commences after the following calendar year end. For example, the requirements for fiscal years that began in 2002 were determined by actuarial valuations as of December 31, 2000.

Approximately $75 \%$ of the participating municipalities have fiscal years that begin January 1 or July 1. The remainder are scattered throughout the rest of the year.

The "Annual Required Contribution and Accelerated Funding Credit" shown in the preceding schedule represents the summation of each participating municipality's contribution requirements for its fiscal year commencing in the year stated. However, the calculations to determine the percentage contributed use contributions recorded during MERS' fiscal year.
2. Accelerated Funding Credits - An Accelerated Funding Credit (AFC) Program was first established by the Retirement Board in 1984 and modified several times since then. The program that affected 2002 contributions reduced the required contribution rates of municipalities that had funded percentages in excess of $100 \%$.
3. Summary of Actuarial Methods and Assumptions - The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the dates indicated. Additional information as of the latest actuarial valuation may be found in the Actuarial Section.

Summary Information follows:
Valuation Date
Actuarial Cost Method
Amortization Method
Remaining Amortization Period

Asset Valuation Method
Actuarial Assumptions
Investment Rate of Return
Projected Salary Increases

Post-Retirement Benefit Adjustment

December 31, 2001
Entry Age Normal
Level Percent of Payroll, Open
30 years
For new municipalities that first joined MERS prior to 2002, the amortization period was greater than 30 years and will decline one year annually until the period reaches 30 years.

5-Year Smoothed Market
8\%
4.5\% for base inflation, plus $0.0 \%$ to $4.16 \%$ per year attributable to merit and longevity.
2.5\% annual post-retirement benefit adjustments if adopted by individual municipality.

## SUPPORTING SCHEDULES

## SCHEDULE OF ADMINISTRATIVE EXPENSES

For the Fiscal Year Ended December 31, 2002

## Administrative Expenses

Personnel Services
Salaries
\$1,983,954
Social Security
153,466
Retirement
178,487
Insurance
Total Personnel Services
287,830
Professional Services
Actuarial Services
Audit Services
390,792
Commercial $\quad 39,880$
Legal Services
91,064
Medical Advisory Services $\quad 83,333$
$\begin{array}{ll}\text { Data Processing } & 13,481\end{array}$
Computer Maintenance $\quad 17,719$
Consultants 187,010
Temporary Personnel $\quad 75,716$
Recruitment Fees
Total Professional Services $\quad \underline{961,442}$
Communication
Reproduction / Retention
152,371
Mail \& Postage
65,894
Promotional Supplies
19,179
Telephone / Communications
Travel and Meetings
122,274
Newsletter
106,852
Annual Meeting $\quad 180,960$
Total Communication $\quad 673,456$
Rentals
Equipment Rental
127,978
Office Rental $\quad \underline{349,442}$
Total Rentals 477,420
Miscellaneous
Payroll Processing 2,366
Office Supplies 75,733
Cash Short and Over 47
Operating Expenses 428,760
Equipment Expense $\quad 95,884$
Software $\quad 38,572$
Software Maintenance 399,513
Professional Development and Tuition Reimbursement 97,055
Insurance
Maintenance
156,546
Depreciation
8,811
Total Miscellaneous
983,604
2,286,891
Total Administrative Expenses

# SCHEDULE OF INVESTMENT EXPENSES <br> For the Fiscal Year Ended December 31, 2002 

Investment Expenses
Personnel Services
Salaries ..... \$215,600
Social Security ..... 17,750
Retirement ..... 19,614
Insurance ..... 40,686
Total Personnel Services ..... 293,650
Professional Services
Commercial Banking ..... 271,872
Investment Managers ..... 8,030,910
Investment Performance Expense ..... 80,750
Total Professional Services ..... 8,383,532
Communication
Travel and Meetings ..... 16,153
Training and Subscriptions ..... 83,800
Total Communication ..... 99,953
Miscellaneous
Operating Expenses ..... 8,528
Equipment Expenses ..... 197
Software Maintenance ..... 82,862
Depreciation ..... 13,917
Total Miscellaneous ..... 105,504
Total Investment Expenses ..... $\$ 8.882 .639$

## SCHEDULE OF PAYMENTS TO CONSULTANTS For the Fiscal Year Ended December 31, 2002

| Firm | Nature of Service | Fee |
| :--- | :--- | ---: |
|  |  |  |
| Beacon Application Services | Systems Implementation and Maintenance | $\$ 1,223,137$ |
| Gabriel, Roeder, Smith \& Company | Actuary | 716,647 |
| PeopleSoft | Systems Implementation and Maintenance | 665,129 |
| Thomas Shadle | Systems Implementation and Maintenance | 125,565 |
| Andrews Hooper \& Pavlik PLC | Auditor | 39,880 |
| New London Management Associates | Personnel and Human Resource Advisors | 35,718 |
| Karoub Associates | Legislative Advisors | 30,000 |
| Associated Physicians | Medical Advisors | 18,875 |
| Miller, Canfield, Paddock \& Stone PLC | Legal Counsel | 16,023 |
| Consulting Physicians | Medical Advisors | $\mathbf{1 4 , 8 0 0}$ |
|  |  | $\$ 2,885,774$ |

Note: Fees paid to investment managers are included in the Investment Section.



## REPORT ON INVESTMENT ACTIVITY - DEFINED BENEFIT PLAN

## Introduction

The MERS' Retirement Board has the fiduciary responsibility and authority to direct the Retirement System's investment program. Members of the Board must follow the State law and prudent standards of diligence consistent with "discharging their duties in the interest of plan participants." The prudent person standard requires that the Board "exercise the same judgment, care, skill, prudence and diligence under the circumstances which persons acting in a like capacity and familiar with such matters would use in the conduct of a similar enterprise with similar aims." MERS has a defined benefit plan and a defined contribution program. The first portion of the investment section is devoted to the defined benefit plan and the second portion to the defined contribution program.

## Investment Objectives and Activity

The primary investment objective is to maximize the long-term total rate of return on investments with a high degree of prudence and sufficient diversification to eliminate inordinate risks in conformity with the Michigan Public Employee Retirement System's Investment Act, 1965 PA 314, as amended. In addition, the Retirement Board has established Investment Guidelines that are updated annually. These guidelines communicate long-term objectives, goals and performance expectations to the staff, investment managers, consultants, and all other interested parties. The Retirement Board strives to add incremental return relative to the market by employing active management strategies where appropriate. Every effort is made to minimize the costs to the portfolio with the use of skilled internal and external resources without negatively affecting the performance of the portfolio.

The long-term objectives for the investment assets are:

- Achieve a real rate of return of at least $3.5 \%$ annually over the rate of inflation, and
- Exceed the actuarial assumption rate of $8 \%$ annually.

The real rate of return is defined as the rate at which the long-term total return on the Retirement System's assets exceeds the long-term inflation rate. The graph on the following page illustrates that MERS has achieved returns greater than the Consumer Price Index (CPI) plus $3.5 \%$ and is only 50 basis points below the actuarial assumption rate of $8 \%$ over 10 years. The market downturn of the last three years has resulted in a return gap between the actuary's assumption rate and actual performance. Given the volatility and severity of losses to the broader markets, the return gap is expected. Historical post-recession returns should reverse this trend in the next few years.

Returns Gross of Fees vs Goals


CPI Source: Bureau of Labor Statistics, U.S. Department of Labor

When compared to the major market indexes, the portfolio demonstrates the value of diversification in providing stability during an extremely volatile investment environment.

Compared to Market Indices for 2002


The historic underperformance of the financial markets has resulted in MERS slightly underperforming its actuarial assumption rate of return for the ten-year period. However, MERS continues to exceed all other investment assumption hurdles over longer periods. The strength of its combination of passive and active management, diversification across asset classes and its disciplined adherence to its asset allocation plan has allowed MERS to provide value through multiple market cycles. The chart below illustrates the growth of a dollar over the last 15 years comparing the fund to its various benchmarks and demonstrating the value added by the portfolio.

## Growth of a Dollar



## Asset Allocation

With the long-term investment objectives as the central focus, the Retirement Board conducts periodic asset allocation studies to select a strategic asset allocation plan. A study was completed in 2001 resulting in two new asset classes (private equity and high yield bonds) being added to the portfolio. This allocation plan designs a portfolio with the optimal mix of asset classes for the long-term investment time horizon. The characteristics of expected return, risk and correlation of return of various asset categories are carefully projected. The result is a portfolio that is broadly diversified in domestic and international stocks, domestic fixed income securities, high yield bonds, real estate, and private equity and cash equivalents. Both active and passive strategies are employed. Due to market movements, the different asset classes fluctuate in performance. Thus, it is reasonable to expect that the actual allocation will differ from that of the target as is demonstrated in the bar chart below.


## Total Fund Investment Results

The investment portfolio produced a total net return for the fiscal year of $-8.6 \%$. MERS did experience a decline for the year. The portfolio's broad asset diversification kept losses relatively low when compared against the broader markets. The equity markets experienced significant losses across all major indexes. A fourth quarter rally eased some of the year's negative returns. In contrast, fixed income markets produced significant positive returns. Real estate and cash positions also added positive returns to the overall portfolio. The technology heavy NASDAQ Index returned $-31.5 \%$ for the year. The Dow Jones Industrial Average and the Russell 3000 fared slightly better, yielding $-16.8 \%$ and $-21.5 \%$, respectively, in 2002.

The MERS' portfolio ranked slightly below median within the Northern Trust (TNT) Public Fund Universe, returning $-8.6 \%$ net for the fiscal year and ranked in the 60th percentile. MERS ranks $42^{\text {nd }}$ and $63^{\text {rd }}$ for the two and three-year periods, respectively. The TNT universe is comprised of 31 public plans with a total market value of $\$ 116$ billion. The plans ranged in size from $\$ 163$ million to $\$ 21.3$ billion, with a median market value of $\$ 1.6$ billion and an average market value of $\$ 3.7$ billion. The portfolio returned $-4.6 \%$ and $3.0 \%$ for the three and five-year periods, respectively, versus its policy benchmark at $-3.7 \%$ and $2.9 \%$. The policy portfolio benchmark reflects the return that would have been achieved had MERS passively implemented the Retirement System's policy asset mix decision through index funds. MERS continues to achieve returns that outpace inflation for the ten-year period. The returns of the portfolio are calculated using a time-weighted rate of return in accordance with the standards of the Association for Investment Management and Research (AIMR). The table below shows the annualized returns net of fees for fiscal year ended December 31, 2002.

## Investment Results Net of Fees



Total Equities - The total equity portfolio includes U.S. common stocks, international stocks and convertible securities and represents $55.9 \%$ of the total portfolio as of December 31, 2002. The year-end composition of the equity portfolio is shown below and is compared to the 2001 equity allocation.

Total Equity Portfolio Comparison 2001 vs 2002


Domestic Equities - As of December 31, 2002, the U.S. stock portfolio had a market value of $\$ 1.179$ billion and represented just over $39.8 \%$ of the total portfolio. The Retirement Board employs U.S. stocks in the portfolio primarily because their historical returns over inflation help to preserve and enhance the fund's ability to achieve the Board's long-term real rate of return objective.


The returns for this asset class declined in 2002 due largely to the slower-than-expected economic recovery and general uncertainty resulting from continued international instability, specifically the potential war in Iraq. During this period, the domestic common stock portfolio returned $-17.6 \%$ versus the Russell 3000 Index with a return of $-21.5 \%$. The large cap growth portfolio had returns of $-23.4 \%$ compared to the Russell 1000 Growth Index of $27.9 \%$. MERS' small cap growth manager returned $-21.7 \%$ versus the Russell 2000 Growth Index at $-30.3 \%$. Value style managers fared better than growth managers, but all sectors of the equity markets were depressed.

Passive management accounts for $12.7 \%$ of the U.S. equity portfolio and is expected to provide broad market diversification. These funds are designed to track the performance of the market at a low cost. Two external managers manage three different indices: S\&P 500 Index, S\&P 400 Index, and Russell 1000 Value Index.

The U.S. equity asset class is diversified by capitalization using small and large companies and by style using value and growth. The stocks within the portfolio can be classified by style as follows: $37.3 \%$ large cap growth, $21.3 \%$ large cap value, $35.6 \%$ small cap value and $5.8 \%$ small cap growth.

Ten Largest Stock Holdings

| TCp Ten Equty Hodings as of December $31 / 2012$ <br> Asset Desciption | Shares | Market Value | Percentege of Tot Manke Value |
| :---: | :---: | :---: | :---: |
| CITIGROUP INC COM | 534,599 | 18,812,538.81 | 0.58\% |
| SCHERING-PLOUGH CORP COM | 786,800 | 17,466,960,00 | 0.53\% |
| MICROSOFT CORP COM | 333,400 | 17,236,780,00 | 0.53\% |
| DELL COMPUTER CORP COM | 536,100 | 14,335,314,00 | 0.44\% |
| PHARMACIA CORP COM | 339,050 | 14,172,290.00 | 0.43\% |
| ELILILY\&COCOM | 213,200 | 13,538,200,00 | 0.41\% |
| FIRST DATA CORP COM | 380,800 | 13,484,128.00 | 0.41\% |
| ABBOTT LAB COM | 142,200 | 12,192,000,00 | 0.37\% |
| BERRY PETE COCL A | 677,700 | 11,554,785.00 | 0.35\% |
| OMNICOM GROUP INC COM | 178,800 | 11,550,480.00 | 0.35\% |

International Equities - The allocation to non-U.S. stocks comprises just over 11.9\% of the total portfolio and is $69.8 \%$ actively managed by Lombard Odier Darier Hentsch, with the remainder in the Barclays EAFE Index Fund. This strategy is employed in recognition of today's global economy and provides further diversification for the total equity portfolio.

Historically, international equities have tended to outperform domestic equities during bull markets and underperform those same markets during bear market conditions. This year the international portfolio outperformed most broad domestic market measures on a relative basis. The European markets found themselves experiencing double-digit losses for a third year. Negative returns were due to poor corporate performance across all sectors, with health care, financials, information technology and consumer discretionary being particularly hard hit for the year.

The benchmark for the international equity portfolio is the MSCI ACWI Free ex-U.S. indexes as computed by Morgan Stanley Capital International. The active portfolio returned $-18.1 \%$ versus the index portion at $-15.8 \%$ for the one-year period ending December 31, 2002. The combined active and passive strategies returned $-17.6 \%$ and $-21.2 \%$ for one and three years, respectively.

Convertibles - The convertible portfolio is $4.2 \%$ of total portfolio assets and is part of the overall equity strategy. Convertible securities are used to lower the volatility of the equity portfolio while producing higher returns than available in fixed income securities. The convertible section of the portfolio is managed by Trust Company of the West (TCW) and returned $-16.8 \%$ for the fiscal year versus the First Boston Convertible Bond Index of $-8.1 \%$. The three and five-year returns for the portfolio are $-9.6 \%$ and $3.2 \%$, respectively, versus the benchmark of $-7.3 \%$ and $3.7 \%$ for the same periods. The high level of zero coupons held within the index resulted in the significant outperformance of the index. The portfolio outpaced its additional hurdle (the S\&P 500) which returned $-22.1 \%$.

Domestic Fixed Income - The U.S. fixed income markets dramatically proved the case for diversification, outperforming the equity portion of the portfolio with returns of $9.2 \%$ versus equity at $-17.5 \%$. Bonds are traditionally regarded as a hedge in a disinflationary or deflationary environment. The fixed income portfolio is $36.1 \%$ of the total portfolio and serves to diversify the equity risk component within the fund, providing asset protection during market downturns.

The domestic fixed income performance is measured against the Lehman Brothers Aggregate Bond Index and Lehman Brothers U.S. Universal. The long-term returns for this sector of the portfolio are $9.8 \%$ and $7.3 \%$ for the three and five-year periods, respectively. The portfolio is $68 \%$ actively managed and $32 \%$ passively managed.

## Ten Largest Fixed Income Holdings

| Top Ten Fixed heome Holdings as of December 31, 2001 asset Description | Par Value | Market Value | Percentage of Total Marke value |
| :---: | :---: | :---: | :---: |
| FNMA 30 YR PASS-THROUGHS 6.530 YEARS SETTLES JAN | 27,850,000 | 28,998,812.50 | 0.89\% |
| FNMA POOL \# 5552037 DUE 09-01-2032 REG | 21,840,000 | 22,932,000.00 | 0.70\% |
| GNMA TBA POOL 6.5 TBA | 20,800,000 | 21,814,000.00 | 0.67\% |
| US TREAS BDS BDS 5.375 DUE 02-15-2031 BEO | 16,725,000 | 18,225,064.24 | 0.56\% |
| U.S TREAS BDS INFLATION INDEXED 3.875 DUE 04-15-2029 REG | 13,000,000 | 17,382,570.40 | 0.53\% |
| FNMA POOL \# 545759 6.5 DUE 07-01-2032 REG | 15,476,751 | 16,119,401.78 | 0.49\% |
| FHLMC GOLD G01443 6.5 08-01-2032 | 14,889,762 | 15,519,131.29 | 0.47\% |
| US TREAS BDS BDS 5.375 DUE 02-15-2031 BEO | 13,935,000 | 15,184,829.31 | 0.46\% |
| FNMA 15 YR PASS-THROUGHS 5.515 YEARS SETTLES JAN | 11,605,000 | 12,022,083.70 | 0.37\% |
| FNMA 30 YR PASS-THROUGHS 730 YEARS SETTLES JAN | 11,200,000 | 11,777,472.00 | 0.36\% |

High Yield Bonds - The MERS Board adopted a new asset allocation structure in 2001 adding high yield bonds as a distinct asset class with a $5 \%$ allocation target within the portfolio. The portfolio seeks to invest in lower grade fixed income investments that provide higher returns than traditional core fixed income assets within the risk budget approved by the Board. The portfolio returned $-8.1 \%$ verses its benchmark, the Merrill Lynch High Yield Master II Index at $-1.8 \%$. Even though the MERS' portfolio is of higher quality than the benchmark, it was still negatively impacted by last year's accounting scandals that affected the valuations of corporate issues in the market regardless of fundamentals.

Real Estate Portfolio - MERS' real estate investments represented 5.2\% of the total portfolio at year end and produced a total return of $4.7 \%$ for the year. The portfolio is well diversified by property type, geographic region and risk category. The publicly traded assets comprised of Real Estate Investment Trusts (REITS) are $38.5 \%$ of the real estate portion, with $61.5 \%$ in commingled-pooled funds which includes $10.5 \%$ in timber investments.

The one-year returns for the public securities portion of the portfolio are $3.4 \%$ versus the North American Real Estate Investment Trust (NAREIT) All Equity Index with 3.8\%. MERS added a new REIT manager Lend Lease Rosen, terminating Cohen and Steers. The REIT markets produced positive returns of $3.4 \%$ versus the traditional equity markets that produced double digit losses. The private securities portion of the real estate allocation returned $4.8 \%$ versus the National Council of Real Estate Investment Fiduciaries (NCREIF) Property Index of $4.2 \%$. Private real estate is split between stable and enhanced properties that returned $4.6 \%$ and $5.0 \%$, respectively. The NCREIF Index represents approximately 3,400 properties and encompasses retail, industrial, office and apartment property types geographically diversified across all regions of the country. The real estate portfolio had returns of $10.8 \%$ and $7.7 \%$ for the three and five-year periods, respectively.


Private Equity - The MERS Board adopted a new asset allocation structure in 2001 adding private equity as a distinct asset class with a $5 \%$ allocation target within the portfolio. This asset class invests predominately in private markets via such vehicles as venture capital, leveraged buyouts, distressed debt and other special situation investment opportunities. The objective is to achieve higher total returns for the fund utilizing a diversified portfolio within the risk budget established by the MERS Board. In 2001, the fund committed $\$ 50$ million to two funds, Mesirow II and Mesirow VII. In 2002, MERS hired Credit Suisse First Boston's (CSFB) Customized Fund Investment Group to invest the remaining capital and to serve as the consultant over all future private equity investments. They will be making investments domestically and in Europe over the next three years. Capital calls of $\$ 10.8$ million were made thus far; the remaining funding will be called in the next three years. MERS plans to become fully invested in the asset class over a three to five-year period.

Short-Term Cash Portfolio - Cash equivalents are employed by the fund to meet the liquidity needs of funding pension benefit payments. These investments allow the external managers a vehicle for the investment of funds during brief periods of time between the sale of an existing security and the purchase of a replacement. The dedicated cash portfolio has an allocation of $1.5 \%$. In addition, all residual cash from MERS' actively managed portfolios is managed through this account. The portfolio is managed internally using various fixed income securities with investment guidelines designed for the preservation of principal, liquidity and the highest credit quality. This portfolio represents $8 \%$ of the total fund's assets.

A complete list of the holdings for all asset categories can be made available to the public upon request.

## SCHEDULE OF INVESTMENT FEES <br> Fiscal Year Ended December 31, 2002

|  | Average Assets <br> Under |  | Average Basis |
| :--- | :---: | :---: | :---: |

## Investment Custodian

The Northern Trust Company (Domestic and International) 271,872

## Investment Performance Measurement Consultants

The Northern Trust Company **
80,750

## Securities Lending Agent

The Northern Trust Company
343,023
Total Investment Fees \$8,726,555

* Investment manager fees for investments in Real Estate Private Securities are netted against the reported partnership or trust fund income.
** Includes the addition of the Alerts product provided by TNT to measure guideline compliance.


## SCHEDULE OF COMMISSIONS

 Fiscal Year Ended December 31, 2002
## Brokerage Firm

## Fano Securities

Instinet Corporation
Cantor Fitzgerald \& Co.
Direct Trading
Capital Institutional Services
Bridge Trading
Chapdelaine
Goldman Sachs
Bear Stearns
Jeffries \& Co.
Wunderlich
MS Dean Witt
CS First Boston
Deutsche Morgan
Citation Group
Merrill Lynch
Witt Soundview
Salomon Smith Barney
Rockhouse Security
J.P. Morgan

Paine Webber
SG Cowen
Lehman Brothers
First Union
Barrett
Subtotal (25 largest)
Other
Total Commissions

Shares Traded
6,467,395

Total Dollars
CommissionslShare
$6,467,395$
$12,102,107$
$7,035,949$
$13,166,921$
5,444,265
3,537,050
2,959,700
2,502,900
2,129,350
2,610,350
3,119,700
1,628,732
1,924,600
1,568,900
1,481,594
1,470,225
1,574,639
1,500,650
1,614,767
1,281,575
1,053,200
1,126,325
1,108,675 947,600
1,947,500
81,304,669
43,925,466
125.230 .135
\$351,179

$$
323,316
$$

$\$ 0.05$
0.03

$$
283,548
$$

0.04

$$
278,839
$$

0.02

$$
246,977
$$

0.05

161,873
0.05

147,985
0.05

119,135
0.05

104,698
0.05

103,491
0.04
0.03

90,269
0.05
0.04
0.05
0.05

73,375
73,020
72,381
0.05

71,152
0.05

70,388
0.05
0.04

63,903
0.05

57,750
0.05
0.05

51,547
0.05 43,937
0.05

43,773
$\underline{0.02}$
3,115,696
0.04

1,161,902
$\underline{0.03}$
$\$ 4.277 .598$
$\$ 0.03$

## Directed Brokerage/Commission Recapture Program

MERS utilizes commission recapture brokers to reduce expenses to the overall fund. Securities Exchange Commission (SEC) investment advisor guidelines stipulate that commissions are classified as assets of the fund and a portion of those costs may be returned to the fund to offset expenses. In the fiscal year ended December 31, 2002, MERS earned $\$ 770,744$ in commission rebates.

## Derivatives

In accordance with the Investment Guidelines, MERS allows the active international manager to enter into forward foreign currency exchange contracts in the international portfolio to match settlement deadlines. Forward contracts are used to hedge against changes in exchange rates related to foreign equities, primarily denominated in European and Asian currencies. This is used to reduce the risk of currency exposure in the portfolio. As of December 31, 2002, there were no forward currency contracts held in the portfolio. Derivatives are not used for speculation or used to leverage the investment portfolio.

The Retirement System does not use swap agreements, stock options, caps/floors or floating rate securities that are priced from underlying collateral.


## REPORT ON INVESTMENT ACTIVITY - DEFINED CONTRIBUTION PROGRAM

## Investment Activity

The MERS' defined contribution program became operative on July 8, 1997, under Section 401 (a) of the Internal Revenue Code. This program is available for adoption by all of MERS' member municipalities. It is an alternative option to MERS' defined benefit plan. As of December 31, 2002, the defined contribution program had net assets of $\$ 84.8$ million and 4,743 members. Each member is responsible for directing the investment of the member's accumulated account balance. Members receive investment performance information from MERS' third-party administrator, International City Management Association - Retirement Corporation (ICMA-RC). On a consolidated basis, the assets as of December 31, 2002, are allocated as follows:


## Investment Options

ICMA-RC offers the following investment options:
Total Return Funds - The actively managed funds include equities, both domestic and international; fixed income; balanced accounts; cash; and investment contracts. These funds are Aggressive Opportunities Fund, International Fund, Growth Fund, Growth and Income Fund, Equity Income Fund, Asset Allocation Fund, U.S. Government Securities Fund and Cash Management Fund. The index funds are comprised of the Overseas Equity Index Fund, Mid/Small Company Index Fund, Broad Market Index Fund, 500 Stock Index Fund and Core Bond Index Fund.

Plus Fund - The Plus Fund consists primarily of portfolios of investment contracts purchased from financial institutions and, accordingly, maintains a stable capital value in the absence of credit default.

Model Portfolio Funds - These five funds invest in the actively managed funds, the index funds and investment contracts in varying proportions. They allow the investor to choose one investment vehicle to provide the level of diversification that best meets their risk tolerance and investment objectives. In descending order of market risk, they are All-Equity Growth Fund, Long-Term Growth Fund, Traditional Growth Fund, Conservative Growth Fund and Savings Oriented Fund.

Mutual Fund Series - This is a group of 17 segregated accounts. The portfolio of each segregated account consists of shares of a single designated mutual fund that are acquired, held and redeemed by the Trust in response to investments and withdrawals from the account by participants. The series includes the following: PIMCO Total Return, PIMCO High Yield Fund, Fidelity Puritan Fund, Lord Abbott Large Company Value Fund, American Century Value Fund, Calvert Social Investment Fund Equity Portfolio, Fidelity Contrafund, Fidelity Magellan Fund, Gabelli Value Fund, MFS Large Company Growth Fund, American Century Ultra Fund, Putnam Voyager Fund, T. Rowe Price Small-Cap Value Fund, T. Rowe Price Small-Cap Stock Fund, INVESCO Small Company Growth Fund, Janus Adviser Series Worldwide Fund and Putnam International Growth Fund.

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GABRIEL, ROEDER, SMITH \& COMPANY
Consultants \& Actuaries
One Town Square • Suite $800 \cdot$ Southileld. Michigan 48076 • 248-799-9000 • 800-521-0498 • fax 248-799-9020

October 15, 2002
The Retirement Board
Municipal Employees' Retirement System of Michigan
1134 Municipal Way
Lansing, Michigan 48917
Dear Board Members:
The basic financial objective of the Municipal Employees' Retirement System of Michigan (MERS) is to establish and receive contributions which:
(1) when expressed in terms of percents of active member payroll will remain approximately level from generation to generation of Michigan citizens, and which
(2) when combined with present assets and future investment return will be sufficient to meet the present and future financial obligations of MERS.
In order to measure progress toward this fundamental objective, MERS has annual actuarial valuations performed. Separate actuarial valuations are prepared for each participating municipality and court. The valuations (i) measure present financial position, and (ii) establish contribution rates that provide for the normal cost (current cost) and level percent of payroll amortization of unfunded actuarial accrued liabilities over a reasonable period (generally 30 - -34 years). The latest completed actuarial valuations were based upon data and assumptions as of December 31, 2001. These valuations determine the contribution rates for the fiscal years beginning in 2003.
The actuarial valuations are based upon financial and participant data which is prepared by retirement system staff. assumptions regarding future rates of investment return and inflation, and rates of retirement, turnover, death, and disability among MERS members and their beneficiaries. The data is reviewed by us for internal and year-to-year consistency as well as general reasonableness prior to its use in the actuarial valuations. It is also summarized and tabulated for the purpose of analyzing trends. The demographic assumptions were adopted by the Retirement Board and were based upon actual experience of MERS during the years 1993 to 1998 . The economic assumptions were adopted by the Board in 1998. Assets are valued according to a method that fully recognizes expected investment return and averages unanticipated market return over a five-year period. The assumptions and methods utilized in this valuation, in our opinion, meet the parameters established by Governmental Accounting Standards Board Statement No. 25.
The current benefit structure is outlined in the actuarial section of the CAFR. We provided the information used in the supporting schedules in the actuarial section and some of the supporting schedules in the statistical section. In the financial section the Schedules of Funding Progress and the employer contributions shown in the Schedule of Employer Contributions are based on the actuarial valuations.
The actuarial valuations were performed by qualified actuaries in accordance with accepted actuarial principles in compliance with Act No. 220 of the Public Acts of 1996, as amended, and the MERS plan document, as revised. Based upon the valuation results, it is our opinion that the Municipal Employees' Retirement System of Michigan continues in sound condition in accordance with actuarial principles of level percent of payroll financing.

Respectfully submitted,


Alan E. Sonnanstine, $M \triangle \Lambda \Lambda, ~ \Lambda S A$


## SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

1. The investment return rate used in making the valuations was $8 \%$ per year, compounded annually. Adopted 1981. 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, the $8 \%$ investment return rate translates to an assumed real rate of return of $3.5 \%$ in excess of inflation. Adopted 1998.
2. Valuation assets (cash and investments) were valued for each municipality using a five-year smoothed market value method. For the 1993 valuation and later, the excess (shortfall) of actual investment income (including interest, dividends, realized and unrealized gains or losses) over the imputed income at the valuation interest rate is considered the gain (loss) that is spread over five years. Adopted 1994.
3. The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries (MAAA). The assumptions used in the actuarial valuations were adopted by the Retirement Board after consulting with the actuary.
4. The mortality table used to project the mortality experience of plan members is the 1994 Group Annuity Mortality Table. For disabled retirees, the ages in the regular mortality table have been adjusted by three years to reflect the higher expected mortality rates of disabled members. Adopted 2000.
5. Sample probabilities of retirement with an age and service allowance are shown on page 65. Adopted 2000.
6. Sample probabilities of separation from service before retirement due to disability or other causes are shown on pages 66-67. Adopted 2000.
7. The salary increase assumption projects annual salary increases of $4.5 \%$ plus a percentage based on an age-related scale to reflect merit, longevity and promotional increases. Sample rates are shown on page 68. Adopted 1998.
8. Total active member payroll is assumed to increase $4.5 \%$ a year, which is the portion of the individual pay increase assumptions attributable to inflation. In effect, this assumes no change in the number of active members. Adopted 1998.
9. An individual entry age actuarial cost method of valuation was used to determine actuarial accrued liabilities and normal cost. Adopted 1994. Unfunded actuarial accrued liabilities are funded over periods ranging between 30 and 34 years, depending on the municipality.
10. For employers that adopt $\mathrm{E}-1$ or $\mathrm{E}-2$ post-retirement benefit increases, retirement benefits are assumed to increase by an annual, non-compounded rate of $2.5 \%$. Adopted 1981.
11. The most recent experience study for the Retirement System was completed in April 2000 and covered the period January 1, 1993, through December 31, 1998. All assumptions and method changes adopted in 2000 are based on the results of that study.
12. The Accelerated Funding Credit (AFC) Program has been replaced with a new, less complicated program of contribution credits for overfunded employee divisions. The new program eliminates the complexities of the AFC, simplifies the calculation of the required employer contribution rates, removes much of the variability of contribution rates, and satisfies the requirement of the Governmental Accounting Standards Board. Adopted 2002.
13. There have been no recent changes in the nature of the plan that have had an impact on the Retirement System. Municipalities have the ability to modify those plan provisions that apply to their individual plan. The individual municipality contribution rates are modified to account for changes in provisions of the plan selected by the municipality.
14. There have been no changes in the actuarial assumptions or methods that have had a material impact on the December 31, 2001, actuarial valuation results.
15. The data about persons now covered and about present assets has been furnished by the Retirement System's administrative staff. Although examined for general reasonableness, the data has not been audited by the actuary.

## PROBABILITIES OF RETIREMENT FOR MEMBERS ELIGIBLE TO RETIRE

Percent of Eligible Active Members Retiring Within Next

| Year $^{*}$ |  |  |  |
| :---: | :---: | :---: | :---: |
| Retirement |  |  |  |
| Ages | Without F50 <br> or | F55 or F(N) | With F55 |$\quad$| With F50 |
| :---: |
| 50 |

* Municipalities that adopted a non-standard benefit multiplier after December 31, 1996, that is in excess of the B-4 $2.5 \%$ multiplier will have a retirement rate equal to $75 \%$ when they first reach the age at which unreduced plan benefits are available.

|  | Percent of Eligible <br> Active Members <br> Retiring Within <br> Nears of Year | Years of <br> Service | Percent of <br> Eligible Active <br> Members <br> Retiring Within <br> Next Year | Years of <br> Service | Percent of <br> Eligible Active <br> Members |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Retiring Within <br> Next Year |  |  |  |  |  |
| 20 | $22 \%$ | 31 | $22 \%$ | 41 |  |
| 21 | 22 | 32 | 22 | 42 | $24 \%$ |
| 22 | 22 | 33 | 22 | 43 | 24 |
| 23 | 22 | 34 | 24 | 44 | 24 |
| 24 | 22 | 35 | 18 | 45 | 27 |
| 25 | 22 | 36 | 14 | 46 | 30 |
| 26 | 22 | 37 | 16 | 47 | 30 |
| 27 | 22 | 38 | 18 | 48 | 30 |
| 28 | 22 | 39 | 18 | 49 | 30 |
| 29 | 22 | 40 | 20 | 50 | 100 |
| 30 | 22 |  |  |  |  |

Municipalities that have adopted a non-standard benefit multiplier after December 31, 1996, that is in excess of the B-4 $2.5 \%$ multiplier will have a retirement rate equal to $75 \%$ at the first age at which unreduced plan benefits are available.

## EARLY RETIREMENT - REDUCED BENEFIT

Percent of Eligible
Active Members
Retiring Within
Next Year
50
51
52
53
54
55
56
57
58
59
3\%
3
5
8
15
4
4
4
8
10

# RATES OF SEPARATION (EXCLUDING DEATH) FROM ACTIVE EMPLOYMENT BEFORE RETIREMENT 

| $\frac{\text { Sample }}{\text { Ages }}$ | Years of <br> Service | Percent of Active Members <br> Separating Within Next |
| :---: | :---: | :---: |
|  | 0 | $18.00 \%$ |
|  | 1 | 18.00 |
|  | 2 | 16.00 |
|  | 3 | 12.00 |
| 20 | 5 \& Over | 10.00 |
| 25 |  | 9.00 |
| 30 |  | 9.00 |
| 35 |  | 9.00 |
| 40 |  | 7.00 |
| 45 |  | 5.00 |
| 50 |  | 4.00 |
| 55 |  | 4.00 |
| 60 |  | 3.00 |
| 65 |  | 3.00 |
| 70 |  | 2.00 |
|  |  | 0.00 |

## RATES OF SEPARATION DUE TO DISABILITY* PERCENT BECOMING DISABLED WITHIN NEXT YEAR

| Sample Ages |  | Percent |
| :---: | :---: | :---: |
| 20 |  | $0.02 \%$ |
| 25 |  | 0.02 |
| 30 |  | 0.02 |
| 35 |  | 0.02 |
| 40 |  | 0.05 |
| 45 |  | 0.12 |
| 50 |  | 0.25 |
| 55 |  | 0.40 |
| 60 |  | 0.45 |
| 65 |  | 0.50 |

* $85 \%$ of the disabilities are assumed to be non-duty, and $15 \%$ of the disabilities are assumed to be duty related. For those plans that have adopted disability provision D-2, 70\% of the disabilities are assumed to be non-duty, and $30 \%$ are assumed to be duty related.


## ANNUAL PERCENTAGE INCREASE IN SALARY

| Sample <br> Ages | Base <br> Inflation | Merit and <br> Longevity | Total Percent <br> Increase in Salary |
| :---: | :---: | :---: | :---: |
| 20 | $4.50 \%$ | $4.16 \%$ | $8.66 \%$ |
| 25 | 4.50 | 2.88 | 7.38 |
| 30 | 4.50 | 1.98 | 6.48 |
| 35 | 4.50 | 1.52 | 6.02 |
| 40 | 4.50 | 1.10 | 5.60 |
| 45 | 4.50 | 0.66 | 5.16 |
| 50 | 4.50 | 0.32 | 4.82 |
| 55 | 4.50 | 0.14 | 4.64 |
| 60 | 4.50 | 0.00 | 4.50 |

SCHEDULE OF ACTIVE MEMBER VALUATION DATA

| Valuation <br> Dec 31 | Participating <br> Municipalities | Active <br> Members | Members <br> Annual | Payroll <br> Annual <br> Average <br> Pay | Percent <br> Increase in <br> Average Pay | Persons <br> on <br> Deferred |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Status |  |  |  |  |  |  |

## MORTALITY TABLES

In estimating the amount of the reserves required at the time of retirement to pay a member's benefit for the remainder of the member's lifetime, it is necessary to make an assumption with respect to the probability of surviving to retirement and life expectancy after retirement.

The mortality table used to project the mortality experience of plan members is the 1994 Group Annuity Mortality Table. For disabled retirees, the ages in the regular mortality tables have been adjusted by three years to reflect the higher expected mortality rates of disabled members.

The life expectancies and mortality rates projected by the 1994 Group Annuity Mortality table for non-disabled members are shown below for selected ages:

|  | Expected Years of Life Remaining |  | Mortality Rates |  |
| :---: | :---: | :---: | :---: | :---: |
| Age | Male | Female | Male | Female |
| 20 | 58.90 | 63.60 | 0.05\% | 0.03\% |
| 25 | 54.06 | 58.69 | 0.07 | 0.03 |
| 30 | 49.25 | 53.77 | 0.08 | 0.04 |
| 35 | 44.45 | 48.88 | 0.09 | 0.05 |
| 40 | 39.64 | 44.01 | 0.11 | 0.07 |
| 45 | 34.88 | 39.18 | 0.16 | 0.10 |
| 50 | 30.19 | 34.39 | 0.26 | 0.14 |
| 55 | 25.65 | 29.67 | 0.44 | 0.23 |
| 60 | 21.33 | 25.09 | 0.80 | 0.44 |
| 65 | 17.34 | 20.77 | 1.45 | 0.86 |
| 70 | 13.79 | 16.80 | 2.37 | 1.37 |
| 75 | 10.62 | 13.10 | 3.72 | 2.27 |
| 80 | 7.87 | 9.81 | 6.20 | 3.94 |

The life expectancies and mortality rates projected by the 1994 Group Annuity Mortality table for disabled members are shown below for selected ages:

|  | Expected Years of Life Remaining |  | Mortality Rates |  |
| :---: | :---: | :---: | :---: | :---: |
| Age | Male | Female | Male | Female |
| 20 | 55.99 | 60.65 | 0.06\% | 0.03\% |
| 25 | 51.17 | 55.74 | 0.08 | 0.03 |
| 30 | 46.37 | 50.83 | 0.08 | 0.04 |
| 35 | 41.56 | 45.95 | 0.09 | 0.06 |
| 40 | 36.77 | 41.11 | 0.14 | 0.09 |
| 45 | 32.05 | 36.30 | 0.21 | 0.12 |
| 50 | 27.45 | 31.55 | 0.36 | 0.19 |
| 55 | 23.02 | 26.89 | 0.63 | 0.34 |
| 60 | 18.89 | 22.46 | 1.15 | 0.67 |
| 65 | 15.16 | 18.36 | 1.99 | 1.18 |
| 70 | 11.84 | 14.54 | 3.12 | 1.83 |
| 75 | 8.90 | 11.07 | 5.02 | 3.17 |
| 80 | 6.50 | 8.08 | 8.25 | 5.49 |

## SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS

| Added to Rolls |  |  | Removed From Rolls |  | End-of-Year Rolls |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Valuation Dec 31 | Retirees/ Beneficiaries Number | Annual Allowance | Retirees/ Beneficiaries Number | Annual Allowance | Retirees/ Beneficiaries Number | Annual Allowance | \% Increase in Annual Allowance | Average <br> Annual <br> Allowance |
| 1992 | 1,181 | 11,771,336 | 625 | 2,533,740 | 11,617 | 71,044,806 | 14.90\% | 6,116 |
| 1993 | 1,024 | 12,219,419 | 601 | 2,300,023 | 12,040 | 80,964,212 | 14.00\% | 6,725 |
| 1994 | 946 | 12,978,853 | 494 | 2,716,142 | 12,492 | 91,226,923 | 12.70\% | 7,303 |
| 1995 | 1,154 824 | $13,799,665$ 10582845 | 614 | 3,015,915 | 13,032 | 102,010,673 | 11.80\% | 7,828 |
| 1997 | 1,504 | $10,582,845$ $16,305,680$ | 593 | $2,752,328$ $3,033,941$ | 13,263 | 109,841,190 | 7.70\% | 8,282 |
| 1998 | 1,122 | 19,230,034 | 568 | 3,642,223 | 14,790 | $123,112,929$ $138,700,740$ | $12.10 \%$ $12.60 \%$ | 8,648 |
| 1999 | 1,312 | 19,663,240 | 777 | 5,592,269 | 15,325 | 152,771,711 | 10.10\% | 9,969 |
| 2000 | 1,319 | 23,588,044 | 369 | 2,810,133 | 16,275 | 173,549,622 | 13.60\% | 10,664 |
| 2001 | 1,238 | 22,971,336 | 608 | 4,735,312. | 16,905 | 191,785,646 | 10.50\% | 11,345 |

## SOLVENCY TEST

The solvency test is another means of checking a retirement system's progress under its funding program, based on the aggregate accrued liability. In this test, the plan's present assets (actuarial value) are compared with obligations in order of priority: (1) active member contributions on deposit; (2) the present value of future benefits to present retired lives; (3) the aggregate accrued liability for present active members. In a system that has been following the discipline of level percent of payroll financing, the obligation for active member contributions on deposit (present value 1) and the present value of future benefits to present retired lives (present value 2 ) will be fully covered by present assets (except in rare circumstances). In addition, the aggregate accrued liability for present active members (present value 3) will be partially covered by the remainder of present assets. Generally, if a retirement system has been using level cost financing, the funded portion of present value 3 will increase over time.

The Solvency Test illustrates the history of the obligations of the Retirement System and reflects the MERS' policy of following the discipline of level percent payroll financing.

## Solvency Test (Dollars In Millions)

## Aggregate Accrued Liabilities

Portion of Accrued Liabilities Covered by Valuation Assets
(1)
(2)

| Valuation <br> Date <br> Dec 31 |
| :---: |
| 1992 |
| $1993^{*}$ |
| 1994 |
| 1995 |
| $1996^{* *}$ |
| $1997^{* * *}$ |
| 1998 |
| 1999 |
| 2000 |
| 2001 |


|  | Active Member Contributions | Retirees and Beneficiaries | Active Members (Employer- <br> Financed Portion) | Valuation Assets | (1) | (2) | (3) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1992 | 214.8 | 648.2 | 781.3 | 1,720.20 | 100.00\% | 100.00\% | 09.70\% |
| 1993* | 221.2 | 704.9 | 1,220.9 | 1,863.30 | 100.00\% | 100.00\% | 76.80\% |
| 1994 | 239.0 | 844.4 | 1,385.9 | 1,986.60 | 100.00\% | 100.00\% | 65.20\% |
| 1995 | 250.6 | 968.4 | 1,524.8 | 2,166.90 | 100.00\% | 100.00\% | 62.20\% |
| 1996** | 269.3 | 1,041.1 | 1,688.6 | 2,416.40 | 100.00\% | 100.00\% | 65.50\% |
| 1997*** | 277.5 | 1,174.7 | 1,833.0 | 2,692.70 | 100.00\% | 100.00\% | 67.70\% |
| 1998 | 291.9 | 1,316.2 | 1,983.9 | 3,030.40 | 100.00\% | 100.00\% | 71.70\% |
| 1999 | 305.5 | 1,463.2 | 2,066.9 | 3,464.90 | 100.00\% | 100.00\% | 82.10\% |
| 2000 | 318.4 | 1,744.6 | 2,334.0 | 3,787.20 | 100.00\% | 100.00\% | 73.90\% |
| 2001 | 336.5 | 1,944.6 | 2,502.8 | 4,034.40 | 100.00\% | 100.00\% | 70.10\% |

Active Members
Date Active Member Retirees and (Employer- Valuation

* 1993 had revised actuarial method, and revised economic and non-economic assumptions.
** 1996 includes accrued liabilities for member contributions, retirees, beneficiaries, and active member (employer-financed portion) amounting to $\$ 4.0$ million, $\$ 6.1$ million and $\$ 13.2$ million, respectively; and related assets of $\$ 29.6$ million for 14 municipalities that in various years have separated from MERS, but have remaining obligations for retirees or deferred plan members entitled to MERS' pension benefits. Exclusive of these liabilities and assets, the active members (employer-financed portion) would have been $64.8 \%$ funded.
***1997 had revised economic assumptions.


## SUMMARY OF PLAN DOCUMENT PROVISIONS

The December 31, 2001, Actuarial Valuation was based upon the provisions of the MERS' Plan Document summarized below. This information relates to the MERS' defined benefit plan.

Monthly retirement payments are made over the lifetime of the retirant and/or over the lifetime of the beneficiary, depending upon choice of benefits adopted by each municipality and final payment option elected by the retiring member.

Credited service is a combination of the prior service a member accrues with their employer before their employer joins MERS and the service rendered after that date. Credited service can be a combination of service with several government employers. A month's credited service is accumulated for each month that the employee is paid for ten days or the number of hours per month as specified by the employer.

Vesting occurs after ten years of credited service unless the municipality selects a lesser number of years.

Final Average Compensation (FAC) is the highest monthly average of a member's compensation over a consecutive period of months of credited service. The municipality selects the number of months. FAC-3 is over 36 months. FAC-5 is over 60 months.

Normal retirement for a member occurs after vesting and attaining age 60. The municipality may choose other combinations of age and service such as age 55 and 15 years service; age 50 and 25 years service, etc. There is no mandatory retirement age.

## Benefit Formula

The annual benefit equals a specified percentage of the member's FAC multiplied by the number of years and months of credited service. The plan has several benefit programs available with percentages that vary from $1.3 \%$ to $2.5 \%$ that may be selected by a participating municipality.

## Early Retirement

Early retirement occurs if the vested member meets the credited service requirements but not the age requirement. The monthly payment is reduced (unless waived by the municipality) for each month that the member is younger than the minimum retirement age.

## Deferred Retirement

Deferred retirement occurs when the employee leaves MERS' covered employment after vesting but before reaching the minimum retirement age. This member or beneficiary will become eligible for the deferred allowance once the member reaches the minimum retirement age provided the member's contributions remain on deposit with MERS.

## Disability Benefit - Duty or Non-Duty

Duty disability is available to a member who becomes totally and permanently disabled due to a duty-related injury or disease. This benefit is calculated like a normal allowance without regard to the vesting requirement or to age. The benefit shall not be less than $25 \%$ of FAC.

Non-duty disability is available to a vested member who becomes totally and permanently disabled for reasons other than from duty-related causes. This allowance is calculated like a normal allowance without regard to age.

Benefits for duty and non-duty disability retirants who have not attained age 60 shall not exceed the difference between $100 \%$ of FAC and the amount of the retirant's considered income. Continuing medical examinations may be required.

## Survivor Benefit

Upon death of a vested non-retired member, the eligible surviving dependents would receive a portion of the normal retirement at the time of death. The surviving spouse would receive $85 \%$. If no surviving spouse, each unmarried child under 21 would receive an equal share of $50 \%$. If the death were duty related, the surviving spouse would receive the higher of $85 \%$ or $25 \%$ of the FAC after waiver of the vesting requirement.

## Post-Retirement Adjustments

Each municipality may elect to provide post-retirement adjustments to retirees and their beneficiaries. The municipality can choose one-time adjustments or an annual adjustment for all retirees or for future retirees only. This Cost of Living Adjustment (COLA)-type of increase is effective in January of each year.

## Forms of Benefit Payment

The member elects one of the following payment options as part of the retirement application process. Once the election is made, it is irrevocable after receipt of first payment. The options include:

1. Straight life over the retirant's life only.
2. Reduced to cover retirant and beneficiary as long as either live.
3. Reduced to cover retirant for their lifetime and further reduced to $75 \%$ or $50 \%$ of the original reduced amount to cover beneficiary if the beneficiary outlives the retirant.
4. A reduced benefit for the retirant's life guaranteed for a specified number of years. The reduced benefit continues for the beneficiary even if the retirant dies, but terminates after the guaranteed number of years.

## Changes in Plan Provisions

There have been no changes in the Plan Document that have had a material impact on the December 31, 2001, actuarial valuation.

Pursuant to a collective bargaining agreement, a participating municipality may provide for retirement benefits that are modifications of standard retirement benefits otherwise included in the plan. These modifications were taken into consideration when determining the municipality contribution rates on the December 31, 2001, actuarial valuation.


# SCHEDULE OF ADDITIONS TO PLAN NET ASSETS DEFINED BENEFIT PLAN (Thousands of Dollars) 

## Fiscal Year Ended

Sept. 30, 1993
Sept. 30, 1994
Sept. 30, 1995
Sept. 30, 1996
Dec. 31, 1997*
Dec. 31, 1998
Dec. 31, 1999
Dec. 31, 2000
Dec. 31, 2001
Dec. 31, 2002

| Member <br> Contributions |  |  |
| :---: | :---: | ---: |
| $\$ 21,799$ |  | Dollars |
| 24,607 |  | $\$ 4,515$ |
| 20,999 |  | 38,537 |
| 26,611 |  | 67,471 |
| 28,508 |  | 113,711 |
| 27,633 |  | 115,956 |
| 27,977 |  | 132,557 |
| 30,823 |  | 131,881 |
| 32,164 |  | 121,940 |
| 39,625 |  | 127,802 |

\% of Annual
Covered Payroll 7.6\%
4.4\%
5.3\%
6.9\%
8.9\%
9.9\%
11.2\%

N/A
N/A
N/A

Investment and Misc. Income

| $\$ 228,599$ | $\$ 314,913$ |
| ---: | ---: |
| 33,838 | 96,981 |
| 354,731 | 425,201 |
| 280,705 | 374,645 |
| 477,040 | 619,259 |
| 416,705 | 560,293 |
| 562,567 | 723,101 |
| $(122,407)$ | 40,297 |
| $(87,510)$ | 66,594 |
| $(317,923)$ | $(150,496)$ |

* The 1997 Revenue covered 15 months. The Employer Contributions as a percent of Annual Covered Payroll was calculated on an annualized basis. Investment Income and Total Income has been restated for prior years to be consistent with the requirements of GASB 25.


## SCHEDULE OF DEDUCTIONS FROM PLAN NET ASSETS DEFINED BENEFIT PLAN (Thousands of Dollars)

Fiscal Year Ended
Sept. 30, 1993
Sept. 30, 1994
Sept. 30, 1995
Sept. 30, 1996
Dec. 31, 1997 *
Dec. 31, 1998
Dec. 31, 1999
Dec. 31, 2000
Dec. 31, 2001
Dec. 31, 2002

Benefit Payments $\$ 74,937$
85,391
94,245
104,627
146,225
131,690
147,833
162,827
182,272
200,794

| Administrative \& Special |  |
| :---: | :---: |
| Expenses | Refunds |
| \$ 1,824 | \$ 43,359 |
| 1,892 | 4,370 |
| 1,980 | 3,204 |
| 2,594 | 4,666 |
| 5,526 | 4,085 |
| 4,871 | 7,769 |
| 5,922 | 8,272 |
| 6,881 | 8,994 |
| 6,170 | 5,414 |
| 7,370 | 3,366 |


| Transfers to <br> MERS DC |  |
| :---: | ---: |
| Program |  |
|  |  |
|  | $\$ 120,119$ |
|  | 91,653 |
|  | 99,430 |
|  | 111,887 |
|  | 155,836 |
| $\$ 8,302$ | 152,632 |
| 30,398 | 192,425 |
| 14,573 | 193,275 |
| 13,804 | 207,660 |
| 491 | 212,021 |

* Fiscal 1997 included 15 months of expenses.


## SCHEDULE OF BENEFIT EXPENSES BY TYPE DEFINED BENEFIT PLAN (Thousands of Dollars)

Fiscal
Year Ended

Sept. 30, 1993
Sept. 30, 1994
Sept. 30, 1995
Sept. 30, 1996
Dec. 31, 1997*
Dec. 31, 1998**
Dec. 31, 1999
Dec. 31, 2000
Dec. 31, 2001
Dec. 31, 2002

| Regular <br> Benefits | Disability <br> Benefits | Employee <br> Refunds | Total |  |
| ---: | ---: | ---: | ---: | ---: |
| $\$ 73,248$ | $\$ 1,688$ |  | $\$ 43,359$ | $\$ 118,295$ |
| 83,340 | 2,051 | 4,370 | 89,761 |  |
| 91,720 | 2,525 | 3,204 | 97,449 |  |
| 101,280 | 3,347 |  | 4,666 | 109,293 |
| 141,749 | 4,476 | 4,085 | 150,310 |  |
| 127,608 | 4,082 | 3,743 | 135,433 |  |
| 143,309 | 4,524 | 4,433 | 152,266 |  |
| 155,853 | 6,974 | 3,964 | 166,791 |  |
| 174,635 | 7,638 | 5,199 | 187,472 |  |
| 192,540 | 8,254 | 3,366 | 204,160 |  |

* Fiscal 1997 included 15 months of expenses.
** Disability benefits estimated based on prior fiscal year's ratio to total benefits.


## DEFINED BENEFIT PLAN

December 31, 2001
Tabulated by Optional Form of Benefit Being Paid

All

| Monthly Benefit | Retired <br> Members | Type of Annuity |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 | 5 | 6 |
| \$ 0-199 | 2,166 | 1,357 | 52 | 28 | 590 | 137 | 2 |
| 200-399 | 3,202 | 2,212 | 137 | 61 | 614 | 165 | 13 |
| 400-599 | 2,425 | 1,748 | 149 | 45 | 361 | 109 | 13 |
| 600-799 | 1,874 | 1,421 | 102 | 38 | 238 | 67 | 8 |
| 800-999 | 1,378 | 1,100 | 67 | 27 | 121 | 57 | 6 |
| 1,000-1,199 | 1,154 | 927 | 58 | 22 | 106 | 38 | 3 |
| 1,200-1,399 | 894 | 750 | 36 | 9 | 72 | 25 | 2 |
| $\begin{aligned} & 1,400-1,599 \\ & 1,600-1799 \end{aligned}$ | 735 | 633 | 30 | 6 | 45 | 18 | 3 |
| 1,800-1,999 | 618 | 553 459 | 20 | 4 | 27 | 14 | 0 |
| 2,000 \& over | 1,953 | 1,888 | 11 | 4 | $\begin{array}{r}19 \\ \underline{25} \\ \hline\end{array}$ | $\begin{array}{r}10 \\ 24 \\ \hline\end{array}$ | 1 |
| Totals | 16,905 | $\underline{\underline{13,048}}$ | $\underline{678}$ | $\underline{\underline{245}}$ | $\underline{\underline{2.218}}$ | $\underline{664}$ | $\underline{52}$ |
| Total Monthly |  |  |  |  |  |  |  |
| Benefit | \$15,982,137 | \$13,743,502 | \$498,865 | \$157.632 | \$1,128,252 | \$417,616 | \$ 36.270 |

## Type of Annuity

1. Normal Retirement for age and service
2. Non-Duty Disability*
3. Duty Disability*
4. Beneficiaries
5. Non-Duty Death
6. Duty Death
[^1]
# SCHEDULE OF RETIRED MEMBERS BY TYPE OF OPTION SELECTED DEFINED BENEFIT PLAN 

December 31, 2001
Tabulated by Optional Form of Benefit Being Paid

| Monthly Benefit | All Retired Members | Form of Annuity |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 0 to 199 | 2,166 | 693 | 315 | 7 | 53 | 14 | 8 | 8 | 7 | 1,061 |
| 200-399 | 3,202 | 873 | 404 | 17 | 88 | 25 | 27 | 11 | 14 | 1,743 |
| 400-599 | 2,425 | 692 | 330 | 29 | 62 | 22 | 23 | 14 | 10 | 1,243 |
| 600-799 | 1,874 | 523 | 303 | 23 | 43 | 31 | 31 | 9 | 11 | 900 |
| 800-999 | 1,378 | 344 | 262 | 18 | 28 | 27 | 25 | 4 | 8 | 662 |
| 1,000-1,199 | 1,154 | 337 | 222 | 29 | 25 | 15 | 22 | 6 | 6 | 492 |
| 1,200-1,399 | 894 | 273 | 217 | 24 | 16 | 9 | 6 | 1 | 4 | 344 |
| 1,400-1,599 | 735 | 258 | 153 | 25 | 19 | 10 | 6 | 2 | 4 | 258 |
| 1,600-1,799 | 618 | 209 | 138 | 32 | 15 | 7 | 6 | 2 | 4 | 205 |
| 1,800-1,999 | 506 | 147 | 129 | 23 | 13 | 6 | 7 | 2 | 4 | 175 |
| 2,000 \& over | 1,953 | 554 | 516 | 153 | $\underline{57}$ | $\underline{27}$ | $\underline{23}$ | 8 | $\underline{9}$ | 606 |
| Totals | 16,905 | 4.903 | $\underline{2,989}$ | 380 | 419 | 193 | 184 | 67 | 81 | 7,689 |
| Total Monthly |  |  |  |  |  |  |  |  |  |  |
| Benefit | \$15,982.137 | \$4,635.470 | \$3.472.220 | \$710.502 | \$408.081 | \$211,240 | \$189,565 | \$63.140 | \$80.894 | \$6.211,021 |

## Option Selected

1. Beneficiary draws the same benefit
2. 10-year certain and life
3. Beneficiary draws $50 \%$ of the benefit
4. 15-year certain and life
5. Beneficiary draws $75 \%$ of the benefit
6. 20-year certain and life
7. Equated option (changing at social security age)
8. Straight-life allowance
9. 5-year certain and life

| Number of Retirees <br> and Beneficiaries | Average <br> Yearly Benefit |
| :---: | :---: |
| 11,617 | $\$ 6,116$ |
| 12,040 | 6,725 |
| 12,492 | 7,303 |
| 13,032 | 7,828 |
| 13,263 | 8,282 |
| 14,192 | 8,770 |
| 14,790 | 9,378 |
| 15,325 | 9,975 |
| 16,275 | 10,664 |
| 16,905 | $\$ 11,345$ |

Although defined contribution program participants are not included in the annual actuarial valuation of the MERS' defined benefit plan, the trend in defined contribution participation is of interest. Numerous municipality divisions have established defined contribution program benefits for future new employees. Existing defined benefit plan active members in those divisions were offered the choice of plans. The table below shows recent trends in defined contribution program participation and overall MERS' participants.

## DEFINED CONTRIBUTION PROGRAM PARTICIPANTS AND TOTAL MERS PARTICIPANTS

| Item | December 31, <br> $\mathbf{2 0 0 1}$ | December 31, <br> $\mathbf{2 0 0 0}$ | December 31, <br> 1999 |
| :--- | :---: | :---: | :---: |
| Number of Participants |  |  |  |
| Total | 63,714 | 61,595 | 58,275 |
| Defined Benefit Plan | 59,287 | 58,151 | 56,591 |
| \% of Total | $93.1 \%$ | $94.4 \%$ | $97.1 \%$ |
| Defined Contribution Program | 4,427 | 3,444 | 1,684 |
| \% of Total | $6.9 \%$ | $5.6 \%$ | $2.9 \%$ |



Charts 1 and 2 illustrate how MERS has matured over the years. Over time the number of active members per retiree has declined from 7 to around 2 . The benefit payout as a percentage of active member payrolls has increased to over $15 \%$.

## SCHEDULE OF CHANGES IN RESERVES

For the Fiscal Year Ended December 31, 2002

| Defined Benefit Plan |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Reserve for Employee Contributions | Reserve for Employer Contributions and Benefit Payments | Reserve for Expenses and Undistributed Investment Income | Total Defined Benefit Plan | Total Defined Contribution Plan | Total <br> Pension <br> Trust Funds |
| Additions |  |  |  |  |  |  |
| Member contributions |  |  |  |  |  |  |
| Regular <br> Purchase of Service Credit | $\begin{array}{r} \text { \$ } 35,315,957 \\ 4,309,371 \end{array}$ |  |  | \$ 35,315,957 | \$ 3,509,260 |  |
| Employer contributions |  | \$ 127,802,230 |  | $4,309,371$ 127802230 |  | 4,309,371 |
| Net Investment Income |  |  | (319,009,400) | (319,009,400) |  | 138,043,902 |
| Miscellaneous income |  |  | 1,085,887 | 1,085,887 |  | (329,808,053) <br> 1,085887 |
| Transters from Defined Benefit Plan |  |  |  |  |  | 1,085,887 |
| Transfers from Other Plans |  |  |  |  | 491,096 | 491,096 |
| Total Additions |  |  |  |  | 3,557,813 | 3,557,813 |
| Tolar Adailions | 39,625,328 | 127,802,230 | (317,923,513) | $(150,495,955)$ | 7,001,188 | (143,494,767) |
| Deductions |  |  |  |  |  |  |
| Retirement Benefits |  | 200,793,802 |  | 200793802 | 5547637 |  |
| Refund of contributions | 3,366,464 |  |  | $3,366,464$ | 5,54,037 | $\begin{array}{r} 206,341,439 \\ 3,366464 \end{array}$ |
| Administrative Expense |  |  | 7,002,946 | 7,002,946 |  | 7,060,464 |
| Special Expenses and Penalties |  | 366,273 |  | 366,273 |  | $7,002,946$ 366273 |
| Transfers to DC Plan | 53,056 | 438,040 |  |  |  |  |
| Total Deductions | 3,419,520 | 201,598,115 | 7,002,946 | 212,020,581 | 5,547,637 | 217,568,218 |
| Net Increase (Decrease) | 36,205,808 | (73,795,885) | (324,926,459) | $(362,516,536)$ | 1,453,551 | $(361,062,985)$ |
| Other Changes in Reserves |  |  |  |  |  |  |
| Investment Income Allocations | 12,897,022 | $(337,823,481)$ | 324,926,459 |  |  |  |
| Reitrement and Unclaimed Transfers | $(24,620,906)$ | 24,620,906 |  |  |  |  |
| Total Other Changes in Reserves | (11,723,884) | (313,202,575) | 324,926,459 | 0 | 0 | 0 |
| Net Increase (Decrease) in Reserves |  |  |  |  |  |  |
| After Other Changes | 24,481,924 | $(386,998,460)$ | 0 | (362,516, | 51 | , 1,06 |
| Reserve Balance Beginning of Year | 346,979,388 | 3,300,841,481 | 0 | 3,647,820,869 | 83,307,319 | 3,731,128,188 |
| Reserve Balance End of Year | \$ 371,461,312 | \$ 2,913,843,021 | 0 | \$ 3,285,304,333 | \$ 84,760,870 | \$ 3,370,065,203 |

# Schedule of Participating Municipalities <br> Defined Benefit Plan <br> For the Fiscal Year Ended December 31， 2002 

| Name | Number of Actives | Number <br> of Vested | Number of Retirees／ Beneficiarios | Balance Reserve for Employes Contributions | Balance Reserve for Employer Contributions | Total Reserves |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Adrian，City of | 158 | 13 | 105 | \＄3，913，223 | \＄22，373，175 | \＄26，286，398 |  |
| Albion，City of | 59 | 25 | 107 | 377，024 | 10，916，494 | 11，293，518 |  |
| Alcona County | 66 | 7 | 40 | 228，845 | 3，688，980 | 3，917，825 | ， |
| Alger County | 36 | 4 | 18 | 140，703 | 3，155，667 | 3，296，370 | ，${ }^{\text {d }}$ 變 |
| Alger County Road Commission | 33 | 1 | 39 | 920，165 | 3，725，481 | 4，645，646 | ， |
| Algonac，City of | 31 | 1 | 3 | 610，598 | 1，003，687 | 1，614，285 | 4 |
| Allegan County | 181 | 103 | 183 | 1，783，706 | 21，025，497 | 22，809，203 | 4 |
| Allegan County Road Commission | 73 | 3 | 54 | 2，180，434 | 7，637，564 | 9，817，998 |  |
| Allegan，City of | 11 | 3 | 2 | 4，129 | 851，843 | 855，972 | 2 |
| Alma，City of | 88 | 7 | 67 | 2，208，970 | 9，279．219 | 11，488，189 | 維 |
| Almont，Village of | 14 | 0 | 1 | 173.120 | 379，712 | 552，832． | 4＊＊ |
| Alpena County | 110 | 19 | 52 | 249，514 | 6，107，409 | 6，356，923 |  |
| Alpena County Road Commission | 39 | 0 | 32 | 279，891 | 5，131，939 | 5，411，830 |  |
| Alpena General Hospital | 652 | 35 | 218 | 3，924，091 | 59，165，417 | 63，089，508 |  |
| Alpena Senior Citizens Center | 4 | 3 | 3 | ， | 188，722 | 188，722 |  |
| Alpha，Village of | 1 | 0 | 0 | 0 | 18，194 | 18，194 |  |
| Antrim County | 330 | 39 | 99 | 722,563 | 10，009，738 | 10，732，301 |  |
| Antrim County Road Commission | 44 | 2 | 37 | 340，967 | 4，399，919 | 4，740，886 |  |
| Arenac County | 87 | 12 | 41 | 430，887 | 2，981，349 | 3，412，236 |  |
| Arenac County Road Commission | 29 | 0 | 23 | 25，161 | 1，938，554 | 1，963，715 |  |
| Ash Township | 3 | 0 | 2 | 64，486 | 80，106 | ．144，592 |  |
| Au Gres，Cilty of | 5 | 1 | 5 | 0 | 608，783 | 608，783 |  |
| Auburn，City of | 7 | 0 | 3 | 180，414 | 554，094 | 734，508 |  |
| Bad Axe，City of | 28 | 1 | 0 | 158，268 | 1，274，173 | 1，432，441 |  |
| Bangor，City of | 15 | 4 | 11 | 141，736 | 1，268，029 | 1，409，765 | $1 /$ |
| Baraga County | 33 | 7 | 16 | 10，559 | 2，208，238 | 2，218，797 |  |
| Baraga County Memorial Hospital | 178 | 19 | 72 | 344，186 | 4，876，408 | 5，220，594 |  |
| Baraga County Road Commission | 30 | 0 | 27 | 32，093 | 3，256，999 | 3，289，092 |  |
| Baraga，Village of | 10 | 1 | 5 | 4，005 | 904，724 | 908，729 |  |
| Barry County | 382 | 22 | 132 | 1，256，494 | 14，148，640 | 15，405，134 |  |
| Barry County Commuinity Mental Health Authority | 42 | 3 | 0 | 87，938 | 702，246 | 790，184 |  |
| Barry－Eaton District Health Dept | 91 | 29 | 27 | 839，474 | 4，439，066 | 5，278，540 | $1$ |
| Barton Hills，Village of | 3 | 0 | 1 | 0 | 299，968 | 299，968 |  |
| Bates Township | 2 | 0 | 0 | 0 | 68，337 | 68，337 |  |
| Bath Charter Township | 19 | 1 | 2 | 539，542 | 656，965 | 1，196，507 | \％ |
| Battle Creek，City of | 452 | 28 | 214 | 5，402，857 | 43，279，202 | 48，682，059 | $4$ |
| Bay City Housing Commission | 17 | 1 | 17 | 56，834 | 2，915，325 | 2，972，159 | \％${ }^{\text {d }}$ |
| Bay City，City of | 161 | 16 | 264 | 1，543，548 | 28，094，517 | 29，638，065 | \％ |
| Bay Metro Transit Authority | 107 | 5 | 4 | 263，148 | 1，127，247 | 1，390，395 |  |
| Bayliss Public Library | 6 | 0 | 6 | 115，403 | 693，401 | 808，804 | Y, |
| Beecher Metropolitan District Sewage \＆Water | 14 | 1 | 7 | 296，012 | 2，182，092 | 2，478，104 | 1.y.jxidx |
| Beiding，City of | 7 | 0 | 3 | 75,452 | 420，023 | 495，475 |  |
| Belleville，City of | 20 | 3 | 11 | 7，042 | 1，789，890 | 1，796，932 |  |
| Benzie County an | 95 | 21 | 20 | 0 | 3，826，875 | 3，826，875 |  |
| Benzie County Medical Care Facility | 97 | 12 | 12 | 193，864 | 2，389，241 | 2，583，105 |  |
| Benzie County Road Commission Benzie Shores District Library | 38 | 2 | 15 | 393，525 | 1，442，314 | 1，835，839 |  |
| Benzie－Leelanau District Health Dept | 1 | 0 | 0 | 8，769 | 43，018 | 51，787 | ＋5 |
| Berkley，City of | 53 | 6 | 54 | 1，411，685 | 131,562 $9,435,249$ | 131,562 10846,934 | 1）．4y |
| Berrien Springs，Village of | 20 | 5 | 11 | 103，397 | 1，444，657 | $10,846,934$ $1,548,054$ |  |
| Bessemer，City of | 14 | 1 | 19 | 223，304 | 1，230，432 | 1，453，736 |  |
| Beverly Hills，Village of | 14 | 7 | 9 | 35，143 | 1，374，786 | 1，409，929 |  |
| Big Rapids Housing Commission Big Rapids．City of | 5 | 2 | 3 | 9，340 | 408，010 | 417，350 |  |
| Birch Run，Village of | 47 16 | 9 | 38 | 408，766 | 4，405，902 | 4，814，668 | 1．Hezt |
| Bishop International Airport Authority | 16 26 | 1 | 3 | 105,450 442,854 | 69,916 1,071667 | 175，366 | WT䜌䊾 |
| Blissfield，Village of | 18 | 0 | 3 | 442,854 329,245 | $1,071,667$ 876,881 | $1,514,521$ $1,206,126$ |  |
| Bloomfield Hills，City of | 37 | 3 | 25 | 1，413，595 | 8，737，369 | 10，150，964 |  |
| Blue Water Transportation Commission | 44 | 0 | 4 | 38，132 | 1，176，500 | 1，214，632 |  |


| Name | Number of Actives | Number <br> of Vested | Number of Retirees/ Beneficiaries | Balance Reserve for Employes Contributions | Balance Reserve for Employer Contributions | Total Reserves |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Boyne Cilty, City of | 42 | 3 | 23 | 1,130,256 | 2,715,075 | $\frac{3,845,331}{}$ |
| Branch-Hillsdaie-St.Joseph District Health | 84 | - 6 | 24 | 1,013,666 | 4,676,379 | 5,690,045 |
| Breckenridge, Village of | 11 | 2 | 6 | 159,355 | 753,536 | $5,690,045$ 912,891 |
| Bridgeport Charter Township | 38 | 17 | 21 | 170,273 | 2,775,076 | 2,945,349 |
| Brighton Township | 14 | 5 | 3 | 181,373 | 255,292 | 436,665 |
| Brighton, City of | 50 | 4 | 16 | 51,044 | 3,602,775 | 3,653,819 |
| Briton, Village of | 2 | 0 | 1 | 45,271 | 109,428 | 154,699 |
| Brookson, City of | 5 | 0 | 1 | 54,351 | 78,719 | 133,070 |
| Brooklyn, Village of Buchanan, City of | 4 | 0 | 2 | 131,235 | 397,212 | 528,447 |
| Buchanan, City of Buena Vista Charter Township | 35 | 3 | 31 | 828,824 | 3,891,086 | 4,719,910 |
| Buena Vista Charter Township | 52 | 3 | 4 | 1,418,686 | 2,208,957 | 3,627,643 |
| Butman Townshlp | 97 | 9 | 25 | 1,049,348 | 7,002,980 | 8,052,328 |
| Cadillac, City of | 77 | 13 | 0 45 | - | 59,580 | 59,580 |
| Cadillac-Wexford Transit Authority | 18 | 13 | 45 | 184,300 9,096 | 7,533,396 | 7,717,696 |
| Calhoun County ${ }^{\text {a }}$ | 150 | 0 | 21 | 9,096 $2,966,321$ | 206,846 | 215,942 |
| Calhoun County Road Commission | 92 | 8 | 20 | 2,966,321 | 65,049 | 3,031,370 |
| Canton Public Library | 0 | 0 | 20 | 83,762 808,167 | 3,981,820 | 4,065,582 |
| Capac, Village of | 11 | 1 | 10 | 808,167 5845 | 373 | 808,540 |
| Capital Area District Library | 44 | 0 | 0 | 5,845 76,760 | 575,830 | 75 |
| Capital Region Alrport Authority | 50 | 6 | 21 | 140,296 | 85,304 $4,840,534$ | 162,064 |
| Carleton, Village of ${ }^{\text {a }}$ | 8 | 1 | 0 | 156,344 | $4,840,534$ 151,428 | 4,980,830 |
| Caseville, Village of | 13 | 1 | 2 | 234,275 | - 88,428 | 307,772 |
| Casplan, City of | 7 | 3 | 5 | 395 |  | 323,063 |
| Cass County | 131 | 8 | 50 | 2,460,392 | 520,380 | 320,775 |
| Cass County Medical Care Facllity | 72 | 2 | 20 | 810,821 | 5,860,103 $1,812,304$ | 8,320,495 |
| Cass District Library | 12 | 0 | 5 | 44,120 | 1,812,304 | 2,623,125 |
| Cedar Springs, City of | 13 | 1 | 8 | 225,985 | 430,658 | 474,77 |
| Center Line, City of | 38 | 2 | 37 | 786,357 | 4,058,829 | 1,314,714 |
| Central Dispatch Muskegon County | 24 | 4 | 13 | 489,500 | 4,057,860 | ,844,217 |
| Central Michigan District Heath Dept | 106 | 30 | 43 | 489,500 582,326 | $1,957,035$ $6,113,657$ | 2,446,535 |
| Central Wayno County Sanitation Authority | 0 | 11 | 17 | 87,603 | 2,557,188 |  |
| Charlevoix County | 302 | 22 | 95 | 525,232 | 9,609,172 | 2,644,791 $10,134,404$ |
| Charlevoix County Road Commission | 38 | 4 | 39 | 234,825 | 3,037,935 |  |
| Charlevoix, City of | 42 | 3 | 25 | 852,545 | 3,171,975 | 3,272,760 |
| Charlotte District Library | 5 | 0 | 2 | 7,379 | $3,17,975$ 208,016 | 4,024,520 |
| Charlotte, City of | 54 | 14 | 31 | 514,956 | 208,016 $6,918,600$ | 215,395 |
| Cheboygan County | 130 | 11 | 46 | 1,672,133 | 6,918,600 5,305,468 | 7,433,556 |
| Cheboygan County Road Commission | 56 | 3 | 53 | 565,287 | $5,305,468$ $5,528,960$ | 6,977,601 |
| Cheboygan, City of | 34 | 1 | 28 | 930,021 | 5,528,960 3,318,222 | 6,094,247 |
| Chelsea, Village of | 30 | 4 | 17 | 20.478 | 3,318,222 3,132,176 | $4,248,243$ $3,152,654$ |
| Chesaning, Village of | 13 | 2 | 7 | 20,470 | $3,132,176$ 227,103 | $\begin{array}{r}3,152,654 \\ \hline 27,103\end{array}$ |
| Chippewa County | 192 | 28 | 77 | 1,363,741. | 12,235,121 | 227,103 $13,598,862$ |
| Chippewa County Road Commission | 67 | 5 | 63 | 83,906 | +7,270,816 | $13,598,862$ 7354,722 |
| Chippewa River District Library | 17 | 0 | 0 | 256,005 | 4,27,641 |  |
| Clare County | 129 | 14 | 48 |  | 5,686,911 | 753,646 |
| Clare County Road Commission | 40 | 14 | 37 | $1,789,548$ $1,109,232$ | $5,686,911$ $4,723,513$ | 7,476,459 |
| Clare, City of | 29 | 3 | 37 | $1,109,232$ 733031 | 4,723,513 | 5,832,745 |
| Clawson, City of | 39 | 1 | 11 | 733,031 | 1,866,505 | 2,599,536 |
| Clay Township | 44 | 1 | 51 | 104,160 | 9,255,444 | 9,359,604 |
| Clearwater Township | 44 | 2 | 11 | 472,307 | 1,123,334 | 1,595,641 |
| linton County | 194 | 4 | 0 | 0 | 5,565 | 5,565 |
| Clinton County Road Commission. | 194 59 | 24 | 81 | 434,155 | 13,486,639 | 13,920,794 |
| Clinton Township | 257 | $\frac{3}{6}$ | 47 | 1,043,498 | 6,184,003 | 7,227,501 |
| Clinton, Village of | 257 17 | 6 | 91 | 6,391,999 | 19,100,746 | 25,492,745 |
| Clinton-Eaton-Ingham Mental Health | 667 | 108 | 8 | 48,180 | 1,522,111 | 1,570,291 |
| Coldwater Board of Public Utilities | 667 | 108 | 97 | 3,480,248 | 35,144,871 | 38,625,119 |
| Coldwater, City of | 40 | 5 | 34 | 780,969 | 4,646,856 | 5,427,825 |
| Coleman, City of |  | 8 | 53 | 1,520,834 | 8,337,910 | 9,858,744 |
| Columbiaville, Village of | 2 | 1 | 5 | 196,152 | 480,020 | 676,172 |
|  |  |  | 2 | 36,046 | 105,481 | 141,527 |




| Name <br> Lawrence, Village of | Number of Actives | Number <br> of Vested | Number of Retirees/ Beneficiaries | Balance Reserve for Employes Contributions | Balance Reserve for Employer Contributions | Total Reserves |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Leelanau County | 100 | ${ }^{3}$ | 2 | 0 | 100,565 | 100,565 |
| Leelanau County Road Commission | 100 44 | 13 | 26 | 218,577 | 5,015,855 | 5,234,432 |
| Leoni Township, | 44 | 2 | 10 | 426,768 | 559,173 | 985,941 |
| Leslie, City of | 41 | 2 | 4 | 1,196,732 | 1,121,160 | 2,317,892 |
| Lexington, Village of | 15 | 1 | 2 | 114,013 | 207,550 | 321563 |
| Library Network | 15 | 1 | 2 | 112,767 | 321,756 | 434,523 |
| Lima Township | 36 | 8 | 18 | 668,446 | 2,321,644 | 2,990,090 |
| Livingston County | 573 | 61 | 4 147 | 40,720 | 46,272 | 86,992 |
| Livingston County Community Mental Health | 573 | 61 | 147 | 822,235 | 31,146,599 | 31,968,834 |
| Livingston County Road Commission | 67 | 1 | 11 | 20,028 | 4,347,783 | 4,367,811 |
| Loutit District Library | 12 | 1 | 45 | 828,476 | 7,610,421 | 8,438,897 |
| Lowell, City of , | 45 | 0 | 1 | 41,663 | 309,031 | 350,692 |
| Luce County , ${ }^{\text {a }}$ | 38 | 4 | 17 | 1,218,749 | 2,892,947 | 4,111696 |
| Luce County Road Commission | 38 | 14 | 17. | 15,316 | 1,433,117 | 1,448,433 |
| Luce-Mackinac-Algers Shoolcraft District Heaith | 29 | 1 | 29 | 12,921 | 2,935,309 | 2,948,230 |
| Ludington, City of | 100 | 04 | 26 | 9,319 | 4,617,015 | 4,626,334 |
| Ludington-Mason District Library | 56 | 7 | 53 | 87,824 | 8,124,630 | 8,212,454 |
| Luna Pier, City of | 13 | 0 | 3 | 5,383 | 605,709 | 611,092 |
| Mackinac County | 67 | 0 | 6 | 405,974 | 1,477,381 | 1,883,355 |
| Mackinac County Road Commission | 25 | 22 | 56 | 88,515 | 4,936,456 | 5,024,971 |
| Mackinac Stralts Hospital \& Health Center | 208 | 6 | 30 | 8,177 | 2,409,711 | 2,417,888 |
| Madison Heights, Clty of $\square^{\text {a }}$, | 122 | ${ }^{3}$ | 17 | 1,519,513 | 2,229,416 | 3,748,929 |
| Madison Townshlp. \% , | 122 | 13 | 88 | 1,136,169 | 16,586,702 | 17,722,871 |
| Manistee County ${ }^{\text {a }}$, , , | 10 | 33 | ${ }^{4}$ | 122,663 | 127,706 | 250,369 |
| Manistee County Road Commission | 260 | 33 | 100 | 815,652 | 11,157,848 | 11,973,500 |
| Manistique, City of | 44 | 3 | 23 | 7,525 | 2,737,316 | 2,744,8414 |
| Manlius Township | 32 | 1 | 25 | 138,864 | 3,320,637 | 3,459,501 |
| Manton, City of | 6 | 0 | 0 | 13,779 | 18,272 | 32,051 |
| Marine City, City of | 0 | 2 | 6 | 106,247 | 312,680 | 418,927 |
| Marion, Village of | 6 | 0 | 4. | 0 | 50,729 | 50,729 |
| Marquette Board of Light \& Power | ${ }^{6}$ | 1 | 3 | 45,861 | 149,583 | 195,444 |
| Marquette County \% $\sim$, | 71 | 2 | 76 | 2,905,840 | 13,943,763 | 16,849,603 |
| Marquette County Airpoit, | 26 | 43 | 154 | 2,562,309 | 25,243,424 | 27,805;733 |
| Marquette County Road Commission |  | 3 | 4 | 24,879 | 864,978 | 889,857 |
| Marquette County Transit Authority, | 25 | 3 | 43 | 1,121,496 | 5,535,429 | 6,656,925 |
| Marquette Waste Management | 25 | 1 | 4 | 332,975 | 673,970 | 1,006,945 |
| Marquette, City of | + | $\begin{array}{r}3 \\ \hline\end{array}$ | ${ }^{0}$ | 158,737 | 221,785 | 380,522 |
| Marshall District Library | 143 | 14 | 73 | 3,904,810 | 12,623,354 | 16,528,164 |
| Marshall, City of | 1 | 0 | 0 | 32,900 | 117,781 | 150,681 |
| Mason County | 101 | 6 | 46 | 3,048,726 | 12,621,444 | 15,670,170 |
| Mason County Road Commission | 222 | 42 | 109 | 200,638 | 19,271,746 | 19,472,384 |
| Mason, City of | 40 | , | 3 | 526,518 | 353,488 | 880,006 |
| Mason-Oceana 911 Central | 44 | 3 | 16 | 1,725,666 | 4,429,164 | 6,154,830 |
| Mastodon Township |  |  | 0 | 133,047 | 132,121 | 265,168 |
| MBS International Airport |  |  | 1 | 0 | 41,790 | 41,790 |
| Meceola Central Dispatch | 27 16 | 0 | 11 | 230,776 | 3,291,019 | 3,521,795 |
| Mecosta County | 16 | 2 | 1 | 481 | 400,974 | 401,455 |
| Mecosta County General Hospital | 125 | 41 | 62 | 478,679 | 10,744,422 | 11,223,101 |
| Mecosta County Road Commission | 46 | 92 | 74 | 392,764 | 5,898,732 | 6,291,496 |
| Melvindale Housing Commission | 46 | 5 | 41 | 1,136,078 | 3,848,231 | 4,984,309 |
| Melvindale, City of. | 80 | 2 | 1 | 7,147 | 247,039 | 254,186 |
| Menominee County | 80 | ${ }^{2}$ | 43 | 2,303,785 | 7,519,075 | 9,822,860 |
| Menominee County Road Commission | 92 | 19 | 58 | 481,244 | 5,650,558 | 6,131,802 |
| Menominee, City of | 49 | ${ }^{1}$ | 9 | 6,687 | 1,350,961 | 1,357,648 |
| Meridlan Charter Township. | 49 136 | 11 | 47 | 244,570 | 4,306,515 | 4,551,085 |
| Metamora Township | 136 | 8 | 15 | 982,322 | 8,198,699 | 9,181,021 |
| Michigan Grand River Watershed | 0 | 0 | 0 | 79,900 | 12,791 | 92,691 |
| Michigan South Central Power Agency | 46 | , | 1 | 0 | 16,570 | 16,570 |
| Middleville, Village of | 46 | 10 | 10 | 319,254 | 2,939,208 | 3,258,462 |
|  | 7 | 4 | 4 | 118,202 | 408,758 | 526,960 |

Name
Midland Authority for Central Dispatch
Midland County Road Commission
Midland, City of
Mid-Michigan District Health Dept
Mid-Peninsula Library Cooperative
Milan Library
Milan, City of
Milford, Village of
Millington, Village of
Missaukee County
Montague, City of
Montmorency County
Montrose, City of
Mt. Morris Township.
Mt. Pleasant, City of
Muir, Village of
Mundy Charter Township
Municipal Employees Retirement System
Munising, City of
Muskegon Charter Township
Muskegon County
Muskegon County Road Commiss
Muskegon Heights, City of
Muskegon Housing Conmission
Negaunee, City of
Newaygo County
Newaygo County Mental Health
Newaygo Medical Care Facility
Newaygo Soil \& Water Conservation District
Newberry, Village of
North Houghton County Water \& Sewage
North Michigan Community Mental Health
North Muskegon, City of
North Pointe Behavioral Healthoare System
Northeast Ottawa District Library
Northport, Village of
Northville Charter Township
Northville District Library
Northville, City of
Northwest Michigan Community Health
Northwestern Regional Alrport Commission
Norton Shores, Clly of
Norway, City of
Novi, City of
Oceana County
Ogemaw County
Ogemaw County Road Commission
Olive Township
Onaway, City of
Ontonagon County
Ontonagon County Economic Development Corp
Ontonagon County Road Commission
Ontonagon Memorial Hospital
Ontonagon, Village of
Orchard Lake, City of
Oscoola County
Osceola County Road Commission
Oscoda Charter Township
Oscoda County

| Name | Number of Actives | Number of Vested | Number of Retirees/ Beneficiaries | Balance Reserve for Employee Contributions | Balance Reserve for Employer Contributions | Total <br> Reserves |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Otisville, Village of | 7 | 1 | 1 | 49,064 | 344,127 | 393,191 |
| Otsego County | 202 | 15 | 41 | 994,973 | 5,152,778 | 6,147,751 |
| Otsego County Road Commission | 44 | 3 | 36 | 92,174 | 4,122,975 | 4,215,149 |
| Ottawa County | 904 | 114 | 229 | 3,495,745 | 61,973,539 | 65,469,284 |
| Ottawa County Central Dispatch Authority | 17 | 4 | 1 | 15,469́ | 674,214 | 689,683 |
| Ottawa County Road Commission | 140 | 6 | 117 | 1,831,749 | 19,934,641 | 21,766,390 |
| Otter Lake, Village of | 1 | 0 | 0 | 4,911 | 12,754 | 17,665 |
| Owosso, City of | 6 | 0 | 6 | 251,457 | 2,040,183 | 2,291,640 |
| Oxford Police, Fire \& EMS Commission | 6 | 5 | 9 | 58,959 | 2,129,397 | 2,188,356 |
| Oxford, Village of | 17 | 1 | 3 | 24,317 | 933,900 | 958,217 |
| Parchment, Clty of | 12 | 2 | 11 | 362,892 | 1,150,315 | 1,513,207 |
| Pathways | 203 | 58 | 95 | 1,410,009 | 18,403,160 | 19,813,169 |
| Paw Paw Lake Regional Joint Sewage Disposal | 4 | 0 | 3 | 101,948 | 435,073 | 537,021 |
| Paw Paw, Village of: | 31 | 1 | 10 | 823,554 | 2,800,754 | 3,624,308 |
| Pellston, Village of | 2 | 0 | 0 | 22,557 | 52,302 | 74,859 |
| Pentwater, Village of , , , , | 10 | 2 | 4 | 168,075. | 517,908. | 685,983 |
| Perrinton, Village of | 1 | 0 | 0 | 5,317 | 7,284 | 12,601 |
| Petersburg, City of | 5 | 0 | 0 | 21,756 | 758 | 22,514 |
| Petoskey, City of | 70 | 7 | 60 | 106,932 | 8,912,844 | 9,019,776 |
| Pewamo, Village of | 1 | 0 | 0 | 5,266 | 17,260 | 22,526 |
| Pigeon, Village of | 6 | 1 | 4 | 98,250 | 403,326 | 501,576 |
| Pinckney, Village of | 10 | 1 | 1 | 169,187 | 488,999 | 658,186 |
| Pinconning, City of | 14. | 2 | 15 | 189,653 | 928,637 | 1,118,290 |
| Pittsfield Charter Township | 111 | 10 | 8 | 1,643,812 | 2,191,641 | 3,835,453 |
| Pleasant Ridge, Cly of | 11 | 12 | 13. | 21,311 | 1,941,019 | 1,962,330 |
| Plymouth District Library , | 13 | 1 | 1 | 0 | 887,280 | 887,280 |
| Plymouth, City of | 16 | 12 | 54 | 45,506 | 8,116,724 | 8,162,230 |
| Port Austin Area Sewer \& Water Authority | 0 | 2 | 0 | 43,190 | 33,376 | 76,566 |
| Port Austin, Village of | 5 | 2 | 2 | 64,983 | 107,383 | 172,366 |
| Port Huron, City of | 364 | 32 | 276 | 4,063,288 | 69,716,516 | 73,779,804 |
| Port Sanilac, Village of | 5 | 2 | 1 | 31,701 | 98,820 | 130,521 |
| Portland, City of | 34 | 5 | 27 | 271,694 | 4,238,687 | 4,510,381 |
| Presque Isle County | 66 | 10 | 33 | 768,552 | 3,026,102 | 3,794,654 |
| Presque Isle County Road Commission | 30 | 2 | 37 | 128,735 | 4,367,660 | 4,496,395 |
| Ravenna, Village of , | 3 | 1 | 0 | 12,442 | 120,393 | 132,835 |
| Reading, City of < , , , , \%, | 8 | 1 | 2 | 0 | 107,603 | 107,603 |
| Redford Township | 156 | 16 | 108 | 579,970 | 19,691,725 | 20,271,695 |
| Redford Township District Library | 10 | 3 | 0 | 99,991 | 661.714 | 761,705 |
| Reed City, City of | 24 | 10 | 21 | 10,062 | 1,659,704 | 1,669,766 |
| Richfield Township (Genesee County) | 9 | 0 | 0 | 204,444 | 244,029 | 448,473 |
| Richfield Township (Roscommon County) | 17 | 3 | 2 | 306,125 | 407,477 | 713,602 |
| Richland Township | 12. | 0 | 1 | 101,713 | 677,887 | 779,600 |
| Rochester, City of | 60 | 4. | 27. | 1,699,859 | 6,710,006 | 8,409,865 |
| Rockford, City of | 42 | 7 | 9 | 63,049 | 1,606,413 | 1,669,462 |
| Rogers City, City of | 27 | 2 | 18 | 733,861 | 3,318,475 | 4,052,336 |
| Romeo District Library | 28 | 1 | 4 | 184,011 | 468,335 | 652,346 |
| Romeo, Village of | 25 | 2 | 12 | 143,803 | 2,009,248 | 2,153,051 |
| Romulus, City of | 65 | 2 | 16 | 1,702,677 | 6,785,744 | 8,488,421 |
| Roosevelt Park, City of | 17 | 5 | 11 | 57,958 | 1,745,153 | 1,803,111 |
| Roscommon County | 147 | 10 | 45 | 660,143 | 6,935,310 | 7,595,453 |
| Rose City, City of | 8 | 2 | 1 | 84,387 | 261,109 | 345,496 |
| Rose Township | 5 | 0 | 6 | 10,247 | 143,428 | 153,675 |
| Royal Oak Township | 23 | 2 | 15 | 316,753 | 4,658,360 | 4,975,113 |
| Saginaw County | 312 | 85 | 397 | 5,141,525 | 56,950,870 | 62,092,395 |
| Saginaw County 911 Center | 28 | 7 | 4 | 224,885 | 3,344,025 | 3,568,910 |
| Saginaw County Community Mental Health Authority | 62 | 33 | 41 | 276,026 | 7,494,945 | 7,770,971 |
| Saginaw County Road Commission | 80 | 4 | 89 | 2,650,626 | 14,352,477 | 17,003,103 |
| Saginaw Public Libraries | 12 | 1 | 0 | 70,353 | 163,031 | 233,384 |
| Saginaw Township | 34 | 1 | 9 | 1,009,411 | 4,994,984 | 6,004,395 |
| Saginaw Transit System Authority | 11 | 4 | 0 | 122,584 | 327,017 | 449,601 |

## Name <br> Saginaw, City of

Saginaw-Midland Municipal Water
Saline, City of
Sandusky District Library
Sandusky, City of
Saugatuck Township
Saugatuck, City of
Sault Ste. Marie, City of
Schoolcraft County
Schoolcraft County Road Commission
Schoolcraft Memorial Hospital
Sebewaing, Village of
Shepherd, Village of
Shiawassee Council on Aging
Shiawassee County
Shiawassee County Road Commission
Shiawassee District Library
Sims Whitney Utilities Authority
Smart
South Haven Emergency Service Authority
South Haven, City of
South Lyon, City of
Southeast Michigan Council of Governments Southeastern Oakland County Resource Recovery Southeastern Oakland County Water Authorlty Southern Clinton County Muncipal Utilities Authority Sparta, Village of
Springfield, City of
St. Charles, Village of
St. Clair Shores Housing Commission
St. Clair, City of
St. Ignace, City of
St. Johns, City of
St. Joseph County
St. Louls Housing Commission
St. Louis, City of
Stambaugh Township
Standish, City of
Stanton, City of
Stephenson, City of
Sterling, Village of
Stockbridge, Village of
Summit Township
Sumpter Township
Superior Charter Township
Superiorland Library Cooperative
Swan Creek Township
Swartz Creek, City of
Sylvan Lake, City of
Tawas Police Authority
Taylor Housing Commission
Three Rivers Hospital
Three Rivers, City of
Traverse Area District Library
Traverse City, City of
Trenton, City of
Tri-County Aging Consortium
Trio Council on Aging
Tuscarora Township
Tuscola County



## SCHEDULE OF PARTICIPATING MUNICIPALITIES Defined Contribution Plan For the Fiscal Year Ended December 31, 2002

## Plan Name

Number of
Members
Albion, City of
Alcona County
Allegan, City of
Allegan County
Alma, City of
Alpena General Hospital
Augres, City of
Baraga County Hospital
Bay City Housing Commission
Bay City, City of
Big Rapids Housing Commission
Big Rapids, City of
Charlotte, City of
Cheboygan County Road Commission
Chelsea Area Construction
Chelsea, Village of
Clawson, City of
Clinton County
Clinton-Eaton-Ingham Community Mental Health |
Coldwater Board Public Utilities
Coldwater, City of
District Health Dept \#2
District Health Dept \#4
District Health Dept \#10
East Grand Rapids, City of
East Lansing, City of
Elkton, Village of
Emmet County Road Commission
Farmington Community Library
Flint Charter Township
Gladstone, City of
Grand Rapids Housing Commission
Grand Traverse County
Grand Traverse County Road Commission
Grandville, City of
Gratiot County
Grayling, City of
Great Lakes Community Mental Health Authority
Helen Newberry Joy Hospital
Hiawatha Behavioral Health

Defined
Contribution
Plan Balance
\$88,787
51,057
1,394,526
7,597,653
44,063
1,778,583
12,886
345,794
556,507
6,744,979
30,922
450,417
8,649
22,425
12,210

$$
206,406
$$

200,376
26,379
266,031
146,880
933,442
131,784
136,693
1,766,904
3,146,945
1,599,772
38,011
624,412
336,840
781,781
278,099
520,298
4,339,015
736,777
1,367,656
455,952
15,302
302,774
252,256
296,851

| Plan Name | Number of Members | Defined Contribution Plan Balance |
| :---: | :---: | :---: |
| Highland Park Housing Commission | 9 | 282,251 |
| Highland Park, City of | 133 | 2,614,895 |
| Howell Downtown Development Authority, City of | 1 | 7,419 |
| Hudsonville, City of | 16 | 332,764 |
| Huntington Woods, City of | 24 | 156,922 |
| Ingham County Capital Area District Library | 62 | 230,266 |
| Iosco County Steelworkers \#10 | 16 | 63,168 |
| Isabella County | 9 | 8,329 |
| Lakeland Library Co-op | 1 | 23,356 |
| Mackinac County | 4 | 4,400 |
| Manistee, City of | 1 | 4,292 |
| Marquette Board of Light and Power | 5 | 74,268 |
| Marquette County | 154 | 3,293,995 |
| Marquette, City of | 11 | 654,240 |
| Mecosta County | 48 | 155,967 |
| Milan, City of | 21 | 80,423 |
| Milford, Village of | 18 | 496,469 |
| Montrose County | 10 | 21,024 |
| Newaygo County | 135 | 1,705,049 |
| Newaygo County Mental Health Center | 59 | 1,135,041 |
| Northpointe Behavioral Health | 1 | 23,470 |
| Northville, City of | 19 | 236,580 |
| Northwest Michigan Community Health | 164 | 3,848,864 |
| Ottawa County General Dispatch | 18 | 92,467 |
| Pathways | 138 | 772,516 |
| Plymouth, City of | 78 | 5,414,777 |
| Roscommon, Village of | 5 | 22,379 |
| Saginaw County | 509 | 15,547,368 |
| Saginaw County Community Mental Health | 236 | 3,677,664 |
| Saginaw, City of | 70 | 642,868 |
| Saginaw-Midland Municipal Water Corp | 4 | 12,326 |
| Schoolcraft Memorial Hospital | 87 | 1,268,727 |
| Southfield Downtown Authority | 5 | 44,510 |
| St. Louis, City of | 13 | 99,526 |
| Standish, City of | 1 | 3,036 |
| West Michigan Community Health | 140 | 3,662,160 |
|  | 4,743 | \$84,760,870 |



MERS is that bridge.


[^0]:    * Bruce Seymore passed away in January 2003. He gave more than 20 years of dedicated volunteer service to MERS. Bruce's expertise as a Board member and GFOA budget reviewer will be greatly missed. Not only was Bruce our colleague, he was our friend. He has given us a wonderful legacy to follow.

[^1]:    * At age 60, these annuity types are converted to Type 1 , normal retirement for age and service

