# Merced County Employees' Retirement Association

A Pension Trust Fund of the County of Merced, California


Comprehensive Annual Financial Report

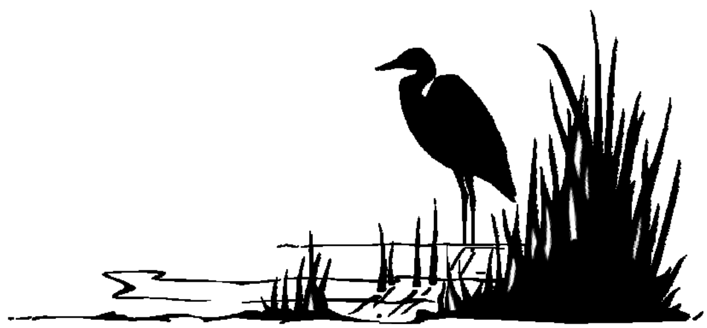
For the fiscal years ended June 30, 2016 and 2015

*The photos included in this report are courtesy of the Merced County Historical Society Archives. Cover photo is the Merced arch that was located on 16th Street and Bear Creek. Merced, Ca 1920's*

# Comprehensive Annual Financial Report

For the Fiscal Years Ended June 30, 2016 and 2015

# MCERA



Issued By

**Kristen Santos**

Plan Administrator

**Bren Horrocks**

Fiscal Supervisor

## Merced County Employees' Retirement Association

A Pension Trust Fund of the County of Merced, California

3199 M Street
Merced, California 95348
(209) 725-3636
www.mcera.co.merced.ca.us

**Merced County Employees' Retirement Association**

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# Introductory Section


*The photos included in this report are courtesy of the Merced County Historical Society Archives.*

*First Merced high school Merced, California 1920*

MCERA

# LETTER OF TRANSMITTAL

December 29, 2016

Dear Board Members:

As the Administrator of the Merced County Employees' Retirement Association (MCERA), I am pleased to present this Comprehensive Annual Financial Report (CAFR) for the fiscal years ended June 30, 2016 and 2015. This report is intended to provide readers with complete and reliable information about MCERA's financial status, compliance with the law and MCERA policies. This is MCERA's 66th year of operation.

**MCERA's Mission Statement and Core Values**

MCERA's mission is to provide benefits to its members, to manage assets prudently in accordance with plan provisions and provide competent and efficient services to our members.

**The Comprehensive Annual Financial Report (CAFR)**

MCERA management is responsible for both the accuracy of the data and the completeness and fairness of the financial information contained in this CAFR. The Comprehensive Annual Financial Report is presented in five sections:

- The **Introductory Section** describes MCERA's management and organizational structure; identifies the members of the MCERA Board of Retirement (the Board); provides a listing of the professional consultants utilized by MCERA; and presents this Letter of Transmittal.

- The **Financial Section** presents the report of the independent auditor, Macias Gini & O'Connell LLP, along with MCERA management's discussion and analysis, basic financial statements, required supplementary schedules and other supplemental schedules.

- The **Investment Section** contains a report on MCERA's investment performance from MCERA's investment consultant, Strategic Investment Solutions, Inc., along with information regarding MCERA's investment policies, asset allocation, investment holdings and investment management fees.

- The **Actuarial Section** contains the independent actuary's certification letter from MCERA's actuary, Cheiron Actuaries, along with a summary of actuarial assumptions and funding methods, and actuarial statistics.

- The **Statistical Section** presents information pertaining to MCERA's operations on a multi-year basis. The financial and operating information provides contextual data for MCERA's fiduciary net position, contributions, refunds, and different types of retirement benefits.

**MCERA and its Services**

The Merced County Employees' Retirement Association is a public employee retirement system established by the County of Merced on July 1, 1950. MCERA is administered by the Board of Retirement to provide retirement, disability, death, and survivor benefits for eligible employees of the County of Merced, Superior Court of California for the County of Merced, Merced Cemetery District, and the Regional Waste Management Authority for Merced County pursuant to the California Constitution, the County Employees' Retirement Law of 1937, Government Code Sections 31450 et. seq. (the 1937 Act), and the by-laws, policies, and procedures adopted by the MCERA Board. The County of Merced Board of Supervisors may also adopt resolutions, as permitted by the 1937 Act, which may affect benefits of MCERA members.

The MCERA Board is responsible for the general management of the retirement system, including making benefit determinations and managing the investment of the System's assets. The day-to-day management of MCERA is vested in an Administrator appointed by the Board.

The Board is comprised of nine members and two alternates; two elected by the active general membership, one regular and one alternate elected by the active safety membership, one regular and one alternate elected by the retired membership, four appointed by the County of Merced Board of Supervisors, and the County of Merced Treasurer, who serves as an ex-officio member. With the exception of the County Treasurer, Board members serve three-year terms, with no term limits.

**Financial Information**

A review of MCERA's fiscal affairs for the years ended June 30, 2016 and 2015 is presented in Management's Discussion and Analysis (MD&A), which is located in the Financial Section of this CAFR. Together, the MD&A and this Letter of Transmittal provide an expanded overview of MCERA's financial activities for the years.

The audit of MCERA's financial statements has been performed by an independent auditor, Macias Gini & O'Connell LLP, who has opined that the financial statements are presented in conformity with Generally Accepted Accounting Principles (GAAP) and are free of material misstatement and that sufficient internal controls exist to provide reasonable assurance regarding the safekeeping of assets and fair presentation of the financial statements and supporting schedules. This document has been prepared in compliance with the Governmental Accounting Standards Board Statement (GASB) 72 and all prior and relevant standards.

Management is responsible for establishing and maintaining appropriate internal controls to ensure that MCERA's assets are protected from loss, theft, or misuse. MCERA recognizes that even sound internal controls have inherent limitations. We believe the internal controls are designed to provide reasonable, but not absolute, assurance that these objectives are met. The concept of reasonable assurance recognizes that the cost of control should not exceed the benefits to be derived and the assessment of costs and benefits requires estimates and judgments by management.

As of June 30, 2016, MCERA's fiduciary net position restricted for pension benefits totaled approximately $670 million reflecting a decrease of approximately $2.3 million (approximately -0.34%) in the fiduciary net position from the end of the previous fiscal year. This was primarily attributable to benefits paid exceeding contributions to the plan.

**Actuarial Funding Status**

MCERA's funding objective is to meet long-term benefit obligations by maintaining a well-funded plan and obtaining optimum investment returns consistent with a prudent level of risk. The higher the level of plan funding, the larger the ratio of assets accumulated to actuarial accrued liability and the higher the level of investment return potential.

Pursuant to provisions in the 1937 Act, MCERA engages an independent actuarial firm to perform annual actuarial valuations of the System. As part of the valuation, economic assumptions are reviewed and, in addition, every three years a triennial experience study of MCERA membership is conducted and non-economic assumptions are reviewed and modified as necessary. The most recent triennial experience study was conducted in 2013. As a result of the study, several economic and non economic assumptions were changed. The impact of the changes was significant, so they were phased in over two years. The most recent actuarial valuation as of June 30, 2015, found the system's actuarial funding status (the ratio of actuarial assets to actuarial liabilities) to be 59.4%. This decrease in the funding ratio (down from 60.0% as of June 30, 2014) was primarily due to MCERA's investment return not meeting the actuarial assumptions (the Plan earned 0.6% on a market value basis).

**Investments**

The Board of Retirement has exclusive control of all investments of the retirement system and is responsible for establishing investment objectives, strategies, and policies. Pursuant to the California Constitution and the 1937 Act, the Board is authorized to invest in any form or type of investment to create a portfolio deemed prudent in the informed judgment of the Board. In making decisions regarding the MCERA investment portfolio, the Board acts in a fiduciary capacity and must discharge its duties in accordance with fiduciary principles. In carrying out its investment responsibilities, the Board receives guidance from a professional investment consultant, Verus.

The Board of Retirement has adopted an Investment Policy, which provides the framework for the management of MCERA's investments. The Investment Policy establishes the investment program goals, asset allocation policies, performance objectives, investment management policies, and risk controls.

The Investment Policy also delineates the principal fiscal duties of the Board, MCERA's custodian bank, and MCERA's investment managers.

The asset allocation plan adopted by the Board is an integral part of MCERA's investment program. It is designed to provide an optimum mix of asset classes with return expectations to satisfy expected liabilities while minimizing risk exposure. A summary of the asset allocation plan can be found in the Investment Section of this CAFR.

The assets of MCERA are exclusively managed by external professional investment management firms. A listing of the investment professionals and investment fees can be found on page 71.

For the fiscal year ending June 30, 2016, MCERA's investment return was a positive 0.6% and the annualized rate of return over the last three and five years was a positive 7.0% and 6.4%, respectively.

**Service Efforts and Accomplishments**

**Pension Administration System**

- Successful generation of 1099s in the new CPAS system.
- Improved reports generated by the CPAS system.
- Approved the development of a web portal for the CPAS system for member use.

### Administration

- Issued Request for Proposal (RFP) for actuarial services and actuarial audit services.
- Issued RFP for custodial services.
- Adopted and implemented a COLA of 3% effective April 1, 2016 for Tier 1 retired members.
- For the twelfth consecutive year, MCERA was awarded the GFOA Certificate of Achievement for Excellence in Financial Reporting for MCERA's 2014-2015 Comprehensive Annual Financial Report.

### Investments

- Approved the consolidation of the domestic large cap portfolio.
- Approved the investment in an international index fund with Mellon Capital.
- Approved a $13 million commitment to Patron V, a value-added international real estate manager.

### Management/Oversight

- Adopted the 2015 valuation with an amortization period to continue to pay the existing unfunded liability by June 30, 2029, yet provide some contribution rate stability for future gains and losses.
- Held performance evaluations of several vendors and staff.
- Issues raised in the auditor's report to the Board of Retirement issued in connection with the audit of the financial statements for Fiscal Year Ended June 30, 2015 have been addressed.

### Certificate of Achievement

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to MCERA for its CAFR for the fiscal year ended June 30, 2015. The Certificate of Achievement is a prestigious national award that recognizes conformance with the highest standards for preparation of state and local government financial reports.

In order to be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized comprehensive annual financial report, whose contents conform to program standards. The CAFR must satisfy both generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid for a period of one year only. This is MCERA's twelfth Certificate of Achievement for Excellence in Financial Reporting. We believe our current report continues to conform to the Certificate of Achievement program requirements.

**Letter of Transmittal Continued**

## Acknowledgements

The compilation of this report reflects the dedicated efforts of MCERA staff and, in particular, MCERA's Bren Horrocks and Mark Harman. I would like to express my great appreciation for their hard work. I would also like to thank MCERA's professional consultants; our actuary, our investment consultant, and our auditor for their generous and invaluable assistance. Finally, I would like to acknowledge the Board of Retirement for its leadership and commitment to the highest fiduciary standards.

Respectfully submitted,

Kristen Santos
Plan Administrator

Government Finance Officers Association

# Certificate of Achievement for Excellence in Financial Reporting

Presented to

**Merced County**

**Employees' Retirement Association**

**California**

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

**June 30, 2015**

Jeffrey R. Emer

Executive Director/CEO

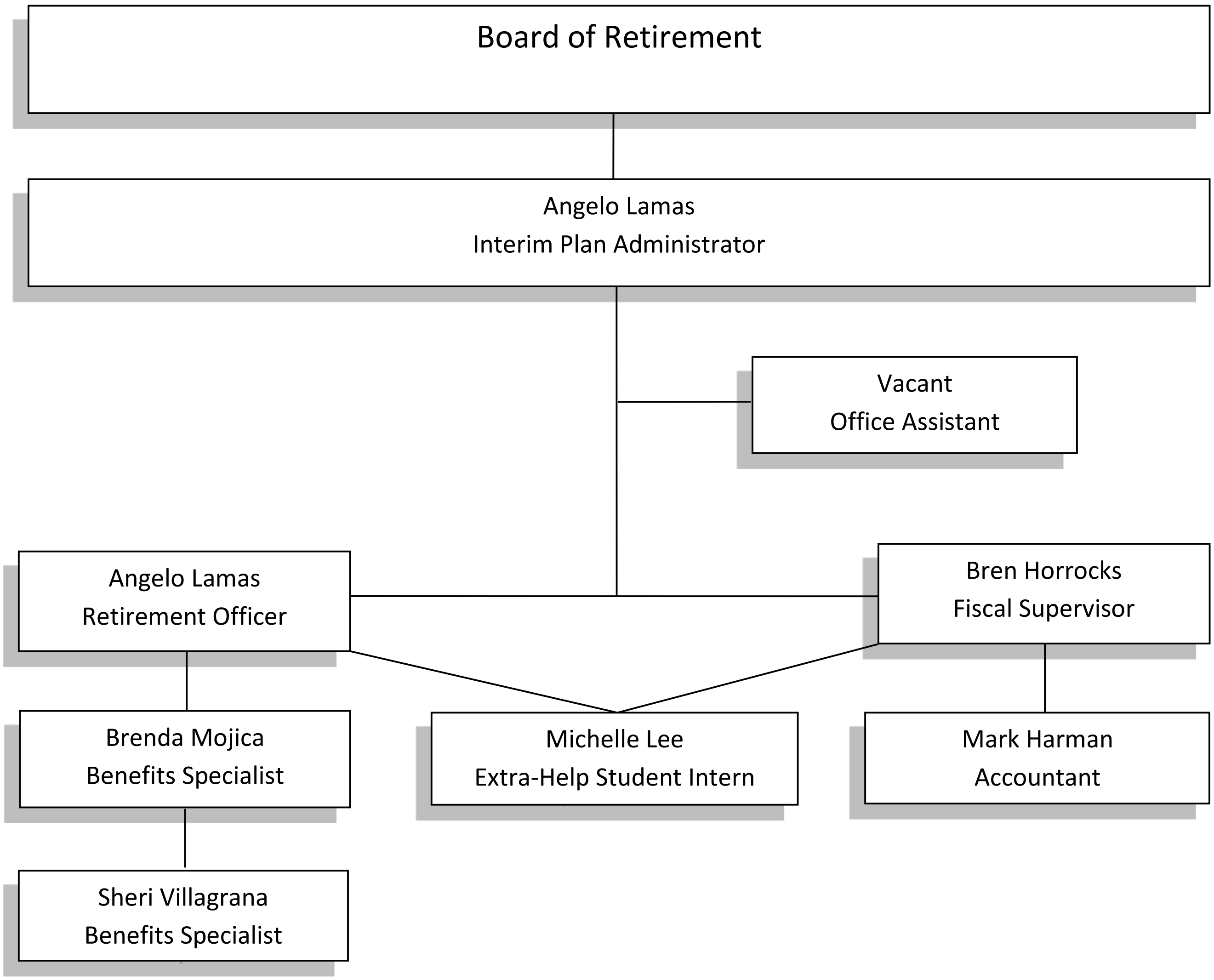
# Merced County Employees' Retirement Association
# Members of the Board of Retirement

As of June 30, 2016

| **Trustees** | **Term Expiration** | **Appointed/Elected by** |
|---|---|---|
| Darlene Ingersoll, Chairperson | December 31, 2017 | General Members |
| Michael Rhodes, Vice-Chairperson | December 31, 2019 | General Members |
| Alfonse Peterson, Secretary | December 31, 2018 | Board of Supervisors |
| Karen Adams, County Treasurer | Permanent by Office | Ex-officio Member |
| David Ness | December 31, 2019 | Board of Supervisors |
| Deidre Kelsey | December 31, 2018 | Board of Supervisors |
| Ryan Paskin | December 31, 2019 | Board of Supervisors |
| James Pacheco | December 31, 2019 | Safety Members |
| Ronald Kinchloe | December 31, 2017 | Retired Members |
| Scott Johnston, Alternate | December 31, 2017 | Retired Members |

# Merced County Employees' Retirement Association
# Administrative Organization Chart

As of June 30, 2016



# Merced County Employees' Retirement Association
# List of Professional Consultants

As of June 30, 2016

## Consulting Services

**Investment Consultant**
Verus Advisory

**Actuary**
Cheiron, Inc.

**Auditor**
Macias Gini & O'Connell LLP

**Master Custodian**
BNY Mellon Asset Servicing

**Data Processing**
Merced County Information Systems

**Legal Counsel**
Merced County Counsel
Mason, Robbins, Browning & Godwin
Nossaman LLP
Public Pension Consultants, Inc.
Hanson Bridgett LLP

**Medical Advisor**
Dr. Charles Fracchia

**Commission Recapture Brokers**
ConvergEx Group
Capital Institutional Services, Inc.

## Investment Services

**Fixed Income**
Barrow, Hanley, Mewhinney & Strauss, Inc.
AXA Investment Managers
Guggenheim

**Real Estate**
UBS Global Asset Management
Greenfield Partners
BlackRock, Inc.
Patron Capital

**Domestic Equity**
Mellon Capital Management
Dimensional Fund Advisors
PanAgora Asset Management, Inc.

**International Equity**
Grantham, Mayo, Van Otterloo & Co. LLC
Earnest Partners, LLC
Wells Capital Management
Copper Rock Capital Partners, LLC
Mellon Capital Management

**Private Equity**
Adams Street Partners, LLC
Pantheon Ventures, Inc.
Invesco Private Capital
Ocean Avenue Capital Partners
Raven Capital Management

**Hedge Fund**
Titan Advisors, LLC
Och-Ziff Capital Management

**Infrastructure**
KKR & Co. L.P.
Morgan Stanley

**Natural Resources**
Taurus Funds Mgt
GSO Capital Partners

Note: Fees to investment professionals can be found in the investment section on page 71.

# Financial Section

*The photos included in this report are courtesy of the Merced County Historical Society Archives.*

*Main Street looking east Merced, California, 1913*

# INDEPENDENT AUDITOR'S REPORT

To the Board of Retirement of the
Merced County Employees' Retirement Association
Merced, California

## Report on the Financial Statements

We have audited the accompanying financial statements of the Merced County Employees' Retirement Association (the Association), a component unit of the County of Merced, as of and for the years ended June 30, 2016 and 2015, and the related notes to the financial statements, which collectively comprise the Association's basic financial statements as listed in the table of contents.

### *Management's Responsibility for the Financial Statements*

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### *Auditor's Responsibility*

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatements of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

***Opinion***

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Merced County Employees' Retirement Association as of June 30, 2016 and 2015, and the changes in its financial position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

***Emphasis of Matters***

As described in Note 2 to the basic financial statements, the Association implemented the provisions of Governmental Accounting Standards Board Statement No. 72, *Fair Value Measurement and Application*, for the fiscal years ended June 30, 2016 and June 30, 2015.

As described in Note 5 to the basic financial statements, based on an actuarial valuation as of June 30, 2015, rolled forward to June 30, 2016, the total pension liability of participating employers exceeded the Association's fiduciary net position by $501.4 million. The actuarial valuation is very sensitive to the underlying actuarial assumptions, including a discount rate of 7.75 percent, which represents the long-term expected rate of return.

Our opinion is not modified with respect to these matters.

***Other Matters***

*Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that management's discussion and analysis, the schedule of changes in net pension liability and related ratios, schedule of employer contributions, and schedule of investment returns, as listed in the table of contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

*Other Information*

Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Association's basic financial statements. The introductory section, other supplemental schedules in the financial section, the investment, actuarial and statistical sections are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The other supplemental schedules in the financial section are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audits of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplemental schedules are fairly stated, in all material respects, in relation to the basic financial statements taken as a whole.

The introductory, investment, actuarial and statistical sections have not been subjected to auditing procedures applied in the audits of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

**Other Reporting Required by *Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated December 29, 2016 on our consideration of the Association's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Association's internal control over financial reporting and compliance.

Macias Gini & O'Connell LLP

Sacramento, California
December 29, 2016

# Merced County Employees' Retirement Association
# Management's Discussion and Analysis

We are pleased to provide this overview and analysis of the financial activities of the Merced County Employees' Retirement Association (MCERA or System) for the fiscal years ended June 30, 2016 and 2015. We encourage readers to consider the information presented here in conjunction with the additional information furnished in the Letter of Transmittal.

**Financial Highlights**

· At the close of the fiscal year June 30, 2016, MCERA's fiduciary net position restricted for pensions totaled $670 million. All of the fiduciary net position is available to meet MCERA's ongoing obligations to plan participants and their beneficiaries.

· During the fiscal year 2016, MCERA's fiduciary net position restricted for pensions decreased by $2.3 million (a decrease of -0.34%). This decrease reflects increased benefits paid and a net investment loss.

· MCERA's funding objective is to meet long-term benefit obligations through contributions and investment income. As of June 30, 2015, the date of MCERA's last actuarial funding valuation, MCERA's funded ratio was 59.4%. In general, this indicates that for every one dollar of benefits due, MCERA has approximately $0.59 of assets available for payment.

· Additions, as reflected in the Statement of Changes in Fiduciary Net Position, were $65.3 million in the fiscal year ended June 30, 2016. These additions include employer and employee contributions of $65.7 million, investment income of $9.2 million along with the fair value of investments decreasing $7.3 million.

· Deductions, as reflected in the Statement of Changes in Fiduciary Net Position, increased from $65.3 million in the last fiscal year to $67.6 million in the current fiscal year (an increase of approximately 3.5%). This increase was primarily due to benefits paid and expenses associated with MCERA's pension administration software.

**Overview of the Financial Statements**

The following discussion and analysis are intended to help the reader understand the purpose and meaning of the key components within the financial section. The financial statements are comprised of the ***Statement of Fiduciary Net Position*** and the ***Statement of Changes in Fiduciary Net Position.***

The ***Statement of Fiduciary Net Position*** is a snapshot of account balances as of the fiscal year end. It indicates the assets available for future payments to retirees and any current liabilities. The difference between assets and liabilities represent the net position restricted for pensions. The statement also presents prior year-end balances for comparative purposes.

The ***Statement of Changes in Fiduciary Net Position*** provides a view of the current year additions to and deductions from the System that caused the change in the net position during the fiscal year.

MCERA's financial statements are in compliance with the generally accepted accounting principles in the United States of America (GAAP) and reporting guidelines set forth in Governmental Accounting Standards Board (GASB) Statement Nos. 28, 34, 40, 44, 51, 53, 63, 67, and 72. These pronouncements require certain disclosures, and also require that defined benefit pension plans of state and local governments report using the full accrual method of accounting. MCERA complies with all material requirements of these pronouncements.

These financial statements report information about MCERA's financial activities. As previously noted, the statements include all assets and liabilities using the full accrual basis of accounting. The current year's additions are recognized when earned and deductions are recognized when incurred regardless of when cash is received or paid. Investment gains or losses are shown at the trade date, not the settlement date. In addition, both realized and unrealized gains and losses are reported. All capital assets are depreciated over their useful lives.

The information reported regarding MCERA's net position restricted for pensions is generally considered to be a good measure of MCERA's financial position. Over time, increases or decreases in the system's net position is one indicator of whether the system's financial health is improving or deteriorating. Other factors however, such as investment market conditions and the employers' net pension liability should also be considered in measuring the retirement system's overall health.

The ***Notes to Basic Financial Statements*** are an integral part of the financial report and provide additional information that is essential to a full understanding of the data provided in the financial statements.

In addition to the financial statements and accompanying notes, this report presents certain required supplementary information. The ***Required Supplementary Information*** includes the Schedule of Changes in Net Pension Liability and Related Ratios, Schedule of Employer Contributions, and the Schedule of Investment Returns. The Schedule of Changes in Net Pension Liability and Related Ratios presents the changes in the employers' net pension liability. The Schedule of Employer Contributions provides historical information about actuarial determined contributions of the employer and the actual contributions made. The Schedule of Investment Returns represents the investment returns weighted by the cash inflows and outflows from the investment funds. Together, these schedules and the supporting ***Notes to Required Supplementary Information*** provide information to help promote understanding of the System's fiduciary net position in relation to the total pension liability, employers' actual contributions and investment returns over time. Finally, the ***Other Supplementary Schedules*** represent information concerning MCERA's operations on a multi-year basis.

**Financial Analysis**

As previously noted, the Net Position may serve over time as a useful indication of MCERA's financial position. At the close of the fiscal year June 30, 2016, MCERA's net position exceeded its liabilities by $670 million. All of the Net Position is available to meet MCERA's ongoing obligations to plan participants and their beneficiaries. As of June 30, 2016 the Net Position totaled $670 million which is $2.3 million or (0.34%) less than the prior year. This result essentially reflects the decrease in net investment income at fair value and increase in benefits and administrative expenses.

The 2015-2016 fiscal year saw continued significant volatility particularly at the beginning of the cycle. US Stocks gained ground in the first half of 2016 and the S&P 500 finished the fourth quarter of the fiscal year up 2.5%. Bonds posted positive returns for the last two quarters, as interest rates fell and credit spreads tightened. Despite the referendum outcome at the end of June, the UK managed to outperform the EAFE benchmark in Q4. The Brexit vote could revive the Eurozone break-up concerns, reflected in the 3.5% decline in Europe ex-UK in Q4. The net return of 0.2% lagged the funds benchmark of 0.4%. The fund's performance was led by Real Estate (9.5%), US Equity (4.4%), and US fixed income (4.3%). Detractors were International Equities (-11.4%), Hedge Funds (-7.9%), and Infrastructure (-6.0%). REITs outperformed both the S&P 500 and Russell 2000 in all four quarters as real estate fundamentals remained strong and interest rates continued to decline, especially after the Brexit Vote late in the fiscal year.

Despite short-term variations in the stock market, MCERA's Management believes that the System remains in a financial position that will enable MCERA to meet its future obligations to participants and beneficiaries.

MCERA remains focused on the long-term performance of the fund, dependent on a strong and successful investment program, risk management, and strategic planning.

**MCERA's Fiduciary Net Position**

For Fiscal Years Ended June 30, 2016 and 2015

| | 2016 | 2015 | Increase/ (Decrease) Amount | % Change |
|---|---|---|---|---|
| Current and Other Assets | $21,418,134 | $20,014,086 | $1,404,048 | 7.0% |
| Investments at Fair Value | 656,742,890 | 656,008,621 | 734,269 | 0.1% |
| Capital Assets/Prepaid Insurance | 2,336,218 | 2,288,508 | 47,710 | 2.1% |
| Total Assets | 680,497,242 | 678,311,215 | 2,186,027 | 0.3% |
| Total Liabilities | 10,481,418 | 5,991,846 | 4,489,572 | 74.9% |
| Net Position | $670,015,824 | $672,319,369 | $(2,303,545) | -0.3% |

For Fiscal Years Ended June 30, 2015 and 2014

| | 2015 | 2014 | Increase/ (Decrease) Amount | % Change |
|---|---|---|---|---|
| Current and Other Assets | $20,014,086 | $38,634,773 | $(18,620,687) | -48.2% |
| Investments at Fair Value | 656,008,621 | 627,178,089 | 28,830,532 | 4.6% |
| Capital Assets/Prepaid Insurance | 2,288,508 | 2,128,552 | 159,956 | 7.5% |
| Total Assets | 678,311,215 | 667,941,414 | 10,369,800 | 1.6% |
| Total Liabilities | 5,991,846 | 10,616,496 | (4,624,650) | -43.6% |
| Net Position | $672,319,369 | $657,324,918 | $14,994,451 | 2.3% |

The increase/(decrease) in current and other assets is due to securities lending collateral, cash on hand with the System's custodial bank and receivables from investments. The increase/(decrease) in total liabilities are mostly due to securities lending activities.

**Reserves**

Reserves are not required, nor recognized, under GAAP. These are not shown separately on the Statement of Fiduciary Net Position, but they equate to, and are accounts within, the Fiduciary Net Position held in trust for pension benefits and are vital to MCERA's operations. MCERA's reserves are established from contributions and the accumulation of investment income after satisfying investment and administrative expenses. Under GAAP, including Governmental Accounting Standards Board (GASB) Statement 67, *Financial Reporting for Pension Plans*, investments are stated at fair value rather than at cost, and fair value includes the recognition of unrealized gains and losses in the current period. These unrealized gains and losses are tracked in a reserve account called the Market Value Fluctuation Reserve. The Market Value Fluctuation Reserve decreased by $49.6 million in the current fiscal year as a result of the financial markets and investment decisions.

**MCERA's Reserves**

For Fiscal Years Ended June 30, 2016, 2015 and 2014

| | 2016 | 2015 | 2014 |
|---|---|---|---|
| Active Members' | $99,056,799 | $94,371,079 | $91,414,430 |
| Employer Advance | 97,418,803 | 54,991,997 | 24,696,667 |
| Retired Members' | 327,318,139 | 363,943,635 | 386,355,789 |
| Interest Fluctuation | 107,807,790 | 71,025,234 | 65,268,878 |
| Market Value Fluctuation | 38,414,293 | 87,987,424 | 89,589,154 |
| Total Reserves at Fair Value | $670,015,824 | $672,319,369 | $657,324,918 |

**MCERA's Activities**

A tumultuous market resulted in a June 30, 2016 fiscal year decrease of $2.3 million in MCERA's Net Position (a decrease of approximately 0.34% from the previous year). The key elements of this decrease resulted in the following changes in Net Position.

**Additions to Fiduciary Net Position**

The reserves needed to finance retirement benefits are normally accumulated through the collection of employer and employee contributions and through earnings on investment income (net of investment expenses). Additions to the Fiduciary Net Position for the fiscal year 2015-2016 totaled $65.3 million, which was a decrease from the 2014-2015 fiscal year's additions of $80.3 million. This was primarily due to lower investment earnings, which were partially offset by an increase in member and employer contributions. The 2014-2015 fiscal year additions were an decrease of $73.6 million from the total additions in the 2013-2014 fiscal year primarily due to investments' fair value. The Employer's contribution rate increased due to the change in actuarial assumptions and experience of MCERA that have been phased in over a three year period. The increase in contribution rate resulted in increased contributions of approximately $4.6 million or 8.9% in fiscal year 2015-2016 and $3.9 million or 8.3% in fiscal year 2014-2015. The Investment section of this report provides a more detailed review of the investment markets and investment performance for the current fiscal year.

**Additions to Fiduciary Net Position**

For Fiscal Years Ended June 30, 2016 and 2015

| | 2016 | 2015 | Increase/ (Decrease) Amount | % Change |
|---|---|---|---|---|
| Member Contributions | $9,042,663 | $8,945,316 | $97,347 | 1.1% |
| Employer Contributions | 56,617,088 | 52,005,656 | 4,611,432 | 8.9% |
| Net Investment Income | (388,209) | 19,318,849 | (19,707,058) | -102.0% |
| Total Additions | $65,271,542 | $80,269,821 | $(14,998,279) | -18.7% |

For Fiscal Years Ended June 30, 2015 and 2014

| | 2015 | 2014 | Increase/ (Decrease) Amount | % Change |
|---|---|---|---|---|
| Member Contributions | $8,945,316 | $9,642,819 | $(697,503) | -7.2% |
| Employer Contributions | 52,005,656 | 48,032,338 | 3,973,318 | 8.3% |
| Net Investment Income | 19,318,849 | 96,219,056 | (76,900,207) | -79.9% |
| Total Additions | $80,269,821 | $153,894,213 | $(73,624,392) | -47.8% |

**Deductions from Fiduciary Net Position**

MCERA was created to provide lifetime retirement annuities, survivor benefits, and permanent disability benefits to qualified members and their beneficiaries. The cost of such programs include recurring benefit payments, as designated by the plan; refunds of contributions to terminated employees; and the cost of administering the retirement system. Effective for the 2011 fiscal year, the County Employees Retirement Law of 1937 (1937 Act) limits administration cost to the greater of 21/100$^{ths}$ of 1 percent of the Association's accrued actuarial liability or $2 million, as adjusted annually by the amount of an annual cost of living adjustment. The 1937 Act also allows for some expenses (such as computer related expenses and actuarial costs) to be excluded from the calculation. Deductions for the current fiscal year totaled $67.6 million, an increase of 3.5% from the previous year. The increase in deductions in the current fiscal year can be attributed primarily to the retiree payroll, which grew $2.1 million or 3.5%. Deductions for the 2014-2015 fiscal year totaled $65.3 million, an increase of 9.5% from the previous year. The increase in expenses for the 2014-2015 fiscal year was attributed primarily to the retiree payroll, which grew approximately 7.7%.

**Deductions from Fiduciary Net Position**
For Fiscal Years Ended June 30, 2016 and 2015

| | 2016 | 2015 | Increase/ (Decrease) Amount | % Change |
|---|---|---|---|---|
| Benefits Paid | $63,928,672 | $61,780,089 | $2,148,583 | 3.5% |
| Refunds of Contributions | 1,153,731 | 1,171,835 | (18,104) | -1.5% |
| Administrative Expense | 2,416,563 | 2,197,281 | 219,282 | 10.0% |
| Actuarial Expense | 76,121 | 126,165 | (50,044) | -39.7% |
| Total Deductions | $67,575,087 | $65,275,370 | $2,299,717 | 3.5% |

For Fiscal Years Ended June 30, 2015 and 2014

| | 2015 | 2014 | Increase/ (Decrease) Amount | % Change |
|---|---|---|---|---|
| Benefits Paid | $61,780,089 | $57,338,930 | $4,441,159 | 7.7% |
| Refunds of Contributions | 1,171,835 | 703,091 | 468,744 | 66.7% |
| Administrative Expense | 2,197,281 | 1,434,671 | 762,610 | 53.2% |
| Actuarial Expense | 126,165 | 112,676 | 13,489 | 12.0% |
| Total Deductions | $65,275,370 | $59,589,368 | $5,686,002 | 9.5% |

**Change in Fiduciary Net Position**

As of June 30, 2016, Fiduciary Net Position decreased $2.3 million resulting in a 0.34% decrease in the Fiduciary Net Position over the previous fiscal year. This decrease is due primarily to benefits out pacing contributions and decreases in investment income. As of June 30, 2015, Fiduciary Net Position increased 2.3% over Fiscal Year 2014, equivalent to a gain of $14.9 million due primarily to an increase in the fair value of investments.

**MCERA's Fiduciary Responsibilities**

MCERA's Board and management are fiduciaries of the pension trust fund. Under the California Constitution, the System's assets must be used exclusively for the benefit of plan participants and their beneficiaries.

**Requests for Information**

This financial report is designed to provide the retirement board, the MCERA membership, taxpayers, investment managers, and creditors with an overview of MCERA's financial condition and to demonstrate accountability for the funds MCERA receives and manages. Questions concerning any of the information provided in this report, or requests for additional information should be addressed to: **Merced County Employees' Retirement Association, 3199 M Street, Merced, CA 95348.**

Respectfully submitted,

Kristen Santos
Plan Administrator

# Merced County Employees' Retirement Association
## Statements of Fiduciary Net Position
As of June 30, 2016 and 2015

| ASSETS | 2016 | 2015 |
|---|---|---|
| Cash and short-term investments | | |
| Cash invested with Merced County Treasurer | $1,293,296 | $1,577,066 |
| Cash invested with BNY Mellon | 5,960,492 | 5,379,699 |
| Other cash and cash equivalents with BNY Mellon | 3,576,091 | 3,803,346 |
| Securities lending collateral | 4,972,033 | 2,638,976 |
| Total cash and short-term investments | 15,801,912 | 13,399,087 |
| Receivables | | |
| Bond interest | 640,636 | 645,358 |
| Dividends | 235,304 | 235,575 |
| Contributions | 3,557,195 | 2,951,115 |
| Distributions | 255,139 | 594,499 |
| Securities sold | 921,498 | 2,186,877 |
| Other | 6,450 | 1,575 |
| Total receivables | 5,616,222 | 6,614,999 |
| Investments, at fair value | | |
| U.S. government and agency obligations | 63,790,914 | 53,798,734 |
| Domestic fixed income | 108,687,312 | 111,503,503 |
| Common stock (domestic) | 39,432,005 | 40,995,445 |
| Common stock (index funds) | 160,011,327 | 169,455,988 |
| Common stock (international) | 138,263,801 | 154,854,029 |
| Common stock (international index funds) | 18,259,912 | - |
| Real estate | 58,116,070 | 53,867,884 |
| Alternative investments | 70,181,549 | 71,533,038 |
| Total investments at fair value | 656,742,890 | 656,008,621 |
| Prepaid expenses | - | 16,680 |
| Capital assets: Net of accumulated depreciation | | |
| of $610,802 and $214,320 respectively | 2,336,218 | 2,271,828 |
| **TOTAL ASSETS** | **680,497,242** | **678,311,215** |
| | | |
| **LIABILITIES** | | |
| Accounts payable | 606,906 | 692,498 |
| Securities lending obligation | 4,972,033 | 2,638,976 |
| Securities purchased | 4,817,076 | 2,649,013 |
| Unclaimed contributions | 85,403 | 11,359 |
| **TOTAL LIABILITIES** | **10,481,418** | **5,991,846** |
| **Fiduciary Net Position Restricted for Pensions** | **$670,015,824** | **$672,319,369** |

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

# Merced County Employees' Retirement Association

## Statements of Changes in Fiduciary Net Position

For the Years Ended June 30, 2016 and 2015

| **ADDITIONS** | **2016** | **2015** |
|---|---|---|
| Contributions: | | |
| Plan members | $9,042,663 | $8,945,316 |
| Employer | 56,617,088 | 52,005,656 |
| Total contributions | 65,659,751 | 60,950,972 |
| | | |
| Investment (loss)/income from investment activities | | |
| Net (depreciation)/appreciation in fair value of investments | (7,297,000) | 12,647,924 |
| Investment income | 9,240,309 | 9,642,717 |
| Other income | 12,834 | 13,018 |
| Less investment expenses | (2,361,966) | (3,007,179) |
| Net investment (loss)/income | (405,823) | 19,296,480 |
| | | |
| Securities lending activities | | |
| Securities lending income | 12,721 | 10,379 |
| Net securities lending rebates | 4,893 | 11,990 |
| Net securities lending activities | 17,614 | 22,369 |
| Total net investment (loss)/income | (388,209) | 19,318,849 |
| **TOTAL ADDITIONS** | **65,271,542** | **80,269,821** |
| | | |
| **DEDUCTIONS** | | |
| Benefits paid | 63,928,672 | 61,780,089 |
| Refunds of contributions | 1,153,731 | 1,171,835 |
| Administrative expenses | 2,416,563 | 2,197,281 |
| Actuarial expense | 76,121 | 126,165 |
| **TOTAL DEDUCTIONS** | **67,575,087** | **65,275,370** |
| Net (decrease)/increase | (2,303,545) | 14,994,451 |
| **FIDUCIARY NET POSITION RESTRICTED FOR PENSIONS** | | |
| Beginning of year | **672,319,369** | **657,324,918** |
| | | |
| End of year | **$670,015,824** | **$672,319,369** |

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

# Merced County Employees' Retirement Association
# Notes to Basic Financial Statements
### June 30, 2016 and 2015

**NOTE 1 - PLAN DESCRIPTION**

A. General Information

The Merced County Employees' Retirement Association (MCERA or the System) was established July 1, 1950, under and subject to the legislative authority of the State of California as enacted and amended in the County Employees Retirement Act of 1937 (the "1937 Act"). The retirement system was voter approved by a greater than 2/3 majority of the electorate of Merced County (The County). The System was integrated with Social Security on January 1, 1956. Members of the System at that time had a one–time option to convert to the new System or remain in the previous System. MCERA administers a cost sharing, multiple-employer defined benefit pension plan (the Plan). MCERA's employers are the County of Merced, the Merced Superior Courts, Regional Waste Management Authority, and Merced Cemetery District. MCERA's annual financial statements are included in the County's financial reports as a pension trust fund.

The management of the retirement system is vested in a Board of Retirement that consists of nine members and two alternates:

1. County Treasurer
2. Two elected general members
3. Four members appointed by the County Board of Supervisors
4. One elected retired member and one alternate
5. One elected safety member and one alternate

Day to day management of MCERA is vested in a Plan Administrator who is appointed by and serves at the direction of the Board of Retirement.

MCERA, with its own governing board, is an independent governmental entity separate and distinct from the County and derives its authority from California Government Code Sections 31450 et seq., and the California Constitution.

B. Membership

Plan members are classified as either General or Safety members. Membership becomes effective on the first day of service. Members include all permanent employees appointed to permanent positions or permanent part-time positions within the Merced County, Merced Superior Courts, Regional Waste Management Authority and the Merced Cemetery District. Newly hired persons age 60 and over and elected officials may waive membership in the retirement system.

All employees hired prior to June 13, 1994 are members of Tier I. Executive "A" Level management appointed prior to 12/31/2012 per Amendment to County Board of Supervisors Resolution 94-89, effective July 1, 2000 are Tier I. The Tier I retirement benefit is based on the highest one year compensation. The minimum age to retire is 50 or any age with 30 years of service credit (20 years for Safety). General and Safety Tier I members are eligible for post-retirement cost of living adjustments.

The County Board of Supervisors adopted a new retirement tier (Tier II) for both General and Probation Safety members hired after June 13, 1994 and all other Safety members hired after July 1, 1998. Benefits for members under Tier II are based on 3 years final average salary and are not eligible for post-retirement cost of living adjustments. The minimum age to retire is 55 for General members or any age with 30 years of service credit and 50 for Safety members or any age with 20 years of service credit.

The County Board of Supervisors adopted two more tiers in 2012 for both General and Safety members. Members hired between October 2012 and December 2012 are Tier III. Tier IV was adopted after the State of California approved AB 340, the Public Employee Pension Reform Act of 2013 (PEPRA). New members defined by the new legislation and hired after January 1, 2013 are Tier IV. Both Tier III and Tier IV benefits are based on 3 years final average salary and are not eligible for post-retirement cost of living adjustments. For Tier III, the minimum age to retire is 55 for General members or any age with 30 years of service credit and 50 for Safety members or any age with 20 years of service credit. For Tier IV, the minimum age to retire is 52 for General members with 5 years of service credit and 50 for Safety members with 5 years of service credit.

Membership Structure on June 30, 2016 was as follows:

| | General | | | | Safety | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Active Members** | **Tier I** | **Tier II** | **Tier III** | **Tier IV** | **Tier I** | **Tier II** | **Tier III** | **Tier IV** | **Total** |
| Vested | 141 | 934 | 22 | 3 | 32 | 191 | 2 | 3 | 1,328 |
| Non-vested | 1 | 81 | 27 | 522 | - | 8 | 2 | 73 | 714 |
| **Inactive Members** | | | | | | | | | |
| Deferred vested | 73 | 166 | 8 | 2 | 1 | 29 | - | - | 279 |
| Deferred non-vested | 4 | 78 | 8 | 58 | 1 | 7 | 2 | 20 | 178 |
| Reciprocity | 52 | 138 | - | - | 12 | 34 | - | 1 | 237 |
| Unclaimed members | 3 | 15 | - | - | - | - | - | - | 18 |
| **Total active and inactive members** | 274 | 1,412 | 65 | 585 | 46 | 269 | 6 | 97 | 2,754 |
| | | | | | | | | | |
| **Retired Members** | | | | | | | | | |
| Service retirements | 1,243 | 284 | 1 | - | 172 | 13 | - | - | 1,713 |
| Beneficiaries | 201 | 12 | - | - | 45 | - | - | - | 258 |
| Service connected disability | 41 | 11 | - | - | 68 | 14 | - | - | 134 |
| Non-service connected disability | 34 | 14 | - | - | 1 | 1 | - | - | 50 |
| Survivors | 16 | 6 | - | - | 4 | 2 | - | - | 28 |
| **Total retired members** | 1,535 | 327 | 1 | - | 290 | 30 | - | - | 2,183 |

# Merced County Employees' Retirement Association
# Notes to Basic Financial Statements
### June 30, 2016 and 2015

Membership Structure on June 30, 2015 was as follows:

| | General | | | | Safety | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Active Members** | **Tier I** | **Tier II** | **Tier III** | **Tier IV** | **Tier I** | **Tier II** | **Tier III** | **Tier IV** | **Total** |
| Vested | 146 | 965 | 17 | 2 | 35 | 204 | 2 | - | 1,371 |
| Non-vested | 1 | 131 | 31 | 374 | - | 7 | 1 | 51 | 596 |
| **Inactive Members** | | | | | | | | | |
| Deferred vested | 81 | 150 | 5 | 1 | 1 | 24 | - | - | 262 |
| Deferred non-vested | 4 | 75 | 6 | 23 | 1 | 9 | 2 | 9 | 129 |
| Reciprocity | 57 | 142 | 1 | - | 15 | 36 | - | 1 | 252 |
| Unclaimed members | 3 | 16 | - | - | - | - | - | - | 19 |
| **Total active and inactive members** | 292 | 1,479 | 60 | 400 | 52 | 280 | 5 | 61 | 2,629 |
| | | | | | | | | | |
| **Retired Members** | | | | | | | | | |
| Service retirements | 1,264 | 248 | 1 | - | 178 | 15 | - | - | 1,706 |
| Beneficiaries | 198 | 9 | - | - | 41 | - | - | - | 248 |
| Service connected disability | 44 | 10 | - | - | 66 | 12 | - | - | 132 |
| Non-service connected disability | 34 | 12 | - | - | 1 | 1 | - | - | 48 |
| Survivors | 17 | 6 | - | - | 3 | 2 | - | - | 28 |
| **Total retired members** | 1,557 | 285 | 1 | - | 289 | 30 | - | - | 2,162 |

C. Benefit Provisions

Members with ten years of service and who have attained the minimum age of 50 (age 55 for General Tier II, III) are eligible to receive a lifetime monthly retirement benefit. A member with 30 years of service (20 years for Safety), regardless of age is eligible for lifetime monthly retirement benefits for Tier I, II and III. Members who are at least 70 years of age are eligible to retire, regardless of years of service. Tier IV members are eligible for retirement with 5 years of service and a minimum age of 50 (Safety) and 52 (General). The service retirement benefit is a percentage of monthly final average salary per year of service, depending on age at retirement and tier. For members integrated with Social Security, the benefit is reduced by 1/3 of the percentage multiplied by the first $350 of monthly final average salary, per year of service credited after January 1, 1956 (not applicable to Tier IV Members). The actual benefit paid will also be affected by the benefit payment option selected by the member.

The County Board of Supervisors adopted Government Code Section 31676.17 of the County Employees Retirement Law of 1937 for all County General members, Tier I and Tier II, except Merced Cemetery District members and any member who was deferred or in inactive reciprocity status prior to the dates of adoption, on March 15, 2005; Government Code Section 31664.1 for all Safety members, Tier I and Tier II, on July 1, 2005; Government Code Section 31676.17 for Superior Court of California and County of Merced members on November 4, 2005; Government Code Section 31676.1 for General members, Tier III, on October 1, 2012, and Government Code Section 31664 for all Safety members, Tier III, on October 1, 2012. The County adopted PEPRA Tier IV for all General and Safety members on January 1, 2013.

The following chart demonstrates the percentage of Final Average Salary a member of each tier would receive per year of service at different ages.

| Percentage of Final Average Salary for Each Year of Service (Rounded) Current Employees | | | | |
|---|---|---|---|---|
| | Tier I | | Tier II | |
| **Retirement Age** | **General** | **Safety** | **General** | **Safety** |
| 50 | 2.00% | 3.00% | - | 3.00% |
| 55 | 2.50% | 3.00% | 2.50% | 3.00% |
| 60+ | 3.00% | 3.00% | 3.00% | 3.00% |
| | Tier III | | Tier IV | |
| **Retirement Age** | **General** | **Safety** | **General** | **Safety** |
| 50 | - | 2.00% | - | 2.00% |
| 55 | 1.49% | 2.62% | 1.30% | 2.50% |
| 57 | 1.64% | 2.62% | 1.50% | 2.70% |
| 65 | 2.43% | 2.62% | 2.30% | 2.70% |
| 67+ | 2.43% | 2.62% | 2.50% | 2.70% |

| Percentage of Final Average Salary for Each Year of Service (Rounded) for Merced Cemetery District, Deferred, and Inactive Reciprocal Members Prior to Enhanced Benefit Adoption Dates | | | | |
|---|---|---|---|---|
| | Tier I | | Tier II | |
| **Retirement Age** | **General** | **Safety** | **General** | **Safety** |
| 50 | 1.24% | 2.00% | - | 2.00% |
| 55 | 1.67% | 2.62% | 1.49% | 2.62% |
| 60 | 2.18% | 2.62% | 1.92% | 2.62% |
| 65+ | 2.61% | 2.62% | 2.43% | 2.62% |

*(1) Retirement Options*

Under the current "Fixed Formula" retirement, a member may elect the "**Unmodified**" allowance, which provides the maximum allowance to the member for life, with a continuance of 60% of the allowance to the spouse or registered domestic partner if the spouse or registered domestic partner is designated as beneficiary. No allowance, however, shall be paid to a surviving spouse or domestic partner unless he or she is married to the member or has been registered as a domestic partner at least one year prior to the date of retirement. In the event of the death of the retiree, spouse or domestic partner, any balance of the retiree's contributions, less retirement allowances received, is payable to an alternate beneficiary.

**Option 1** - The member may elect to receive a slightly reduced monthly retirement allowance, payable throughout their life, with the provision that upon death, their accumulated contributions less the actual annuity payments received by the retiree will be paid to a designated beneficiary. Under this option, beneficiaries may be changed after retirement.

**Option 2** - The member receives a considerably reduced monthly retirement allowance, with the provision that 100% of the retiree's benefit will continue to be paid after the member's death to a beneficiary named at the time of retirement. All payments stop at the death of both annuitants.

**Option 3** - The member receives a reduced monthly retirement allowance, with the provision that 50% of the retiree's benefit will continue to be paid after the member's death to a beneficiary named at the time of retirement. As in Option No. 2, all payments stop at the death of both annuitants.

**Option 4** - The member receives a reduced monthly retirement allowance for life. The reduction depends on the member's age and the age of the member's beneficiary(ies). This is the only option that allows for multiple beneficiaries. A beneficiary does not have to be a spouse or domestic partner, but must have an insurable interest in the member's life. This option also allows the member to assign the percent of continuance to each beneficiary. This option and any estimates for this option are calculated by MCERA's actuary and the cost is paid by the member.

*(2) Cost of Living Adjustment*

Annual cost-of-living adjustments (COLAs) to retirement allowances may be granted by the Retirement Board in accordance with governing law. The current maximum increase in a retirement allowance is 3% per year. Any increase is based on the change in the Bureau of Labor Statistics' Consumer Price Index (CPI) for All Urban Consumers for the calendar year prior to the April 1 effective date of the COLA. The amount of any actual CPI above the 3% maximum is accumulated. Accumulated COLAs may be used in future years, at the Retirement Board's discretion, when the cost-of-living change is less than the maximum 3%. Tier II, III, and IV members are not eligible for any cost-of-living increases in their monthly retirement allowances.

*(3) Disability Benefits*

Members with five years of service, regardless of age, are eligible for non-service connected disability benefits. Member benefits are 1.5% (1.8% for Safety members) of final average salary for each year of service. If this benefit does not equal 1/3 of final average salary, the benefit is increased by the above percentage of final average salary for the years that would have been credited had the member worked to age 65 (age 55 for Safety members). The total benefit cannot exceed 1/3 of the final average salary.

If the disability is service connected, the member may retire regardless of length of service, and the benefit is 50% of final average salary, unless the member is also eligible for a service retirement, in which case the member receives the greater of the two amounts.

*(4) Death Benefit Before Retirement*

In addition to the return of the member's contributions plus interest, MCERA provides a basic death benefit payable to the member's beneficiary or estate equal to one month's salary for each completed year of service under the System, based on the final year's average salary, but not to exceed six months' salary. Depending on length of service, a monthly allowance could be selected by the surviving spouse to be paid for the rest of his or her life as an alternate benefit.

If a member dies while eligible for service retirement or non-service connected disability, the spouse may receive 60% of the allowance that the member would have received for retirement on the day of his or her death in lieu of the basic death benefit. If the member was below the qualifying retirement age at the time of death, the surviving spouse may elect to leave the member's accumulated contributions on deposit until such time as the member would have attained the qualifying age had he or she lived, at which time the spouse may exercise the option above. Unmarried minor children of the deceased member may continue to receive this allowance until marriage or attaining age 18 (21 if full-time student in an accredited school), upon the death of the surviving spouse or in place of the spouse if he or she does not survive the death of the member.

If a member dies as a result of service-connected injury or disease arising out of the course of his or her employment, his or her surviving spouse may elect, in lieu of the basic death benefit, to receive a monthly allowance of one-half of the member's final compensation.

Unmarried minor children of the member may receive the same monthly allowance prior to their marriage or attaining age 18 (21 if a full-time student in an accredited school) if there is no surviving spouse or upon the death of the spouse.

*(5) Death Benefit After Retirement*

Once a member dies after retirement, a lump sum amount of $3,000 (Government Code Section 31789.3 adopted May 2, 2006) is paid to the beneficiary or estate; however, if the member is a reciprocal system member, this benefit is payable only to active members of Merced County at the time of retirement.

If the retirement was for service-connected disability, 100% of the amount the member was receiving at the time of death is continued to the surviving spouse for life. If the retirement was for other than service-connected disability, there are several options available to the member.

*(6) Terminated Members*

A member leaving covered employment after completing five years of credited service becomes eligible for a deferred retirement allowance, provided the member lives to the minimum service retirement age and does not withdraw his or her accumulated contributions. A member must elect deferred status within 180 days after termination. Members leaving employment with less than five years of service are not eligible to receive a retirement benefit. Non-vested members (less than five years of service credit) may leave their contributions on deposit and continue to be credited interest or they can choose to withdraw their contributions at any time. A non-vested member that enters a reciprocal retirement system after terminating employment with a MCERA agency may wish to arrange for reciprocal benefits. Under a reciprocal arrangement the member funds are kept on deposit with MCERA.

*(7) Vesting*

Active members of the System receive a 100% vested interest in the Plan after five years of service, but cannot receive a service retirement benefit until they have been a member of the System for ten years and obtained age fifty for Tier I General members, Tier I, Tier II and Tier III Safety members, age fifty-five for Tier II and Tier III General members, and age fifty-two for Tier IV General members. Members may receive a service retirement benefit after being a member of the system for 30 years for General members and 20 years for Safety members regardless of age. Tier IV members can receive a service retirement benefit with five years of service credit at age fifty-two for General members and age fifty for safety members.

*ǿyǿ Contribution Rates*

The County Employees Retirement Law of 1937 establishes the basic obligations for employer and member contributions to the retirement system. The actual employer and member contribution rates in effect each year are based on recommendations made by an independent actuary and adopted by the Board of Retirement.

Benefits payable by the System are financed through member contributions, employer contributions from Merced County, Merced Superior Courts, Regional Waste Management Authorityΐ aŜNJŎŜŘ /ŜYŜűŜNJè 5λăűNJλŎűΐ and earnings from investments.

*I·ǿ Member*

MCERA members are required to contribute a percentage of their annual covered salary. The rates are set to provide a retirement amount that is equal to a fractional part of the highest year (s) salary, based on membership and tier. Government Code Section 31621.8 sets forth the basis for the determination of the normal rates of contribution for General Tier I and Tier II members. Government Code Section 31639.5 sets forth the basis for the normal rates of contribution for Safety Tier Ł and Tier II. The law further provides that the contribution rates of members will be based on the age nearest birthday at the time of entrance into the System. Section 31453 states that no adjustment will be included in the rates of contribution for time prior to the effective date of any revisions. Member basic contribution rates are based on entry age into the System, except for Tier IV which are 50% of the normal cost, and range between 4.16% and 16.93% for the fiscal years ended June 30, 2016 and June 30, 2015. For members integrated with Social Security, the contributions are reduced by 1/3 of such contribution payable with respect to the first $350 of monthly salary.

*b. Plan Sponsors*

The County of Merced, Merced Superior Court, and participating special districts are required by statute to contribute the amounts necessary to finance the estimated benefits accruing to MCERA members not otherwise funded by employee contributions or investment earnings. Pursuant to provisions of the 1937 Act, the Retirement Board recommends annual contribution rates for adoption by the County Board of Supervisors each year based upon the rates recommended by the System's actuary.

The employers' actuarially determined contribution (ADC) is an actuarially determined amount that is required on a sustained, ongoing basis to systematically fund the normal cost and to amortize the unfunded actuarial accrued liability (UAAL) attributed to past service cost over a period not to exceed thirty years. MCERA's actuarially determined contribution rates for the years ended June 30, 2016 and June 30, 2015 were 49.93% and 47.64% respectively of annual payroll.

In order to determine the ADC, the actuary must first adopt assumptions with respect to certain factors such as those on the next page.

***Non-economic assumptions***

- The probabilities of members separating from active service on account of:
    1. non-vested and vested withdrawal
    2. retirement for service
    3. Mortality
    4. service and non-service connected disability
- The mortality rates to be experienced among retired persons

***Economic assumptions***

- Rate of future investment earnings
    1. inflation rate
    2. real rate of return
- The relative increases in a member's salary from the date of the valuation to the date of separation from active service
    1. merit increases
    2. longevity increases
    3. COLA

Employer contribution rates vary from year to year and depend on the level of benefits established, the rate of return on investments, and the cost of administering benefits. MCERA's Schedule of Employer Contributions for the defined benefit pension plan is presented on page 54 in the Required Supplementary Information following the notes to the basic financial statements.

**Note 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

A. Reporting Entity

While the System is governed by the Board of Retirement and is considered an independent entity, it is a component unit of the County in accordance with Governmental Accounting Standards Board (GASB) Statement No. 39, *Determining Whether Certain Organizations are Component units – an Amendment of GASB Statement no. 14* and GASB Statement No. 61, *The Financial Reporting Entity: Omnibus – an Amendment of GASB Statements No. 14 and No. 34.* The Association meets the blended component unit criteria in that it almost exclusively benefits the the County of Merced by providing services indirectly to its employees.

B. Basis of Accounting

MCERA's financial statements are prepared on an accrual basis of accounting which recognizes income when earned and expenses when the obligation is incurred. Employer and employee contributions are recognized when due, pursuant to statutory or legal requirements per GASB Statement 67, *Financial Reporting for Pension Plans – An Amendment of GASB Statement No. 25*. Investment income is recognized as revenue when earned. Retirement benefits and refunds are recognized when currently due and payable in accordance with the terms of the plan. The net appreciation (depreciation) in fair value of investments consists of realized and unrealized gains and losses on those investments.

C. Investment Expenses

Investment expenses include fees paid for investment consulting services, fund due diligence services, securities custodian services, and rebate and bank fees incurred during the reporting period. Fees paid are charged against the System's investment earnings pursuant to section 31596.1 of the 1937 Act.

D. General Administrative Expense

MCERA's administrative costs for fiscal years 2015/2016 and 2014/2015 are limited pursuant to Government Code Section 31580.2 (a) which provides that the administrative expenses incurred in any year may not exceed the greater of either (1) twenty-one hundredths of 1 percent (.21%) of the actuarial accrued liability of the system or (2) two million dollars ($2,000,000), as adjusted annually by the amount of the annual cost of living adjustment computed in accordance with Article 16.5. Government Code Section 31580.2 (b) provides that expenditures for computer software, hardware, and computer technology consulting services in support of the computer products shall not be considered a cost of administration of the System. The administrative limit per this government code section allows MCERA $2.4 million ($1,131.2 million x .21%) of administrative costs. For the fiscal years ending June 30, 2016 and 2015 total administrative costs were $2,416,563 of and $2,197,281 respectively. Included in these figures are computer technology related activities of $599,371 and $649,528 respectively. The costs of administering the plan are financed by the investment earnings.

E. Required Supplementary Information

Schedules of the change in net pension liability and related ratios and employer contributions that provides information about the employer's annual contribution to the plan as well as the annual investment returns are presented on pages 55 and 56.

F. Administrative Budget and Professional Service Budget

MCERA's Budget consists of two components, an administrative budget and a professional services budget authorized by Government Code Section 31596.1. MCERA's budgets are on a fiscal year basis starting July 1st and ending June 30th.

G. Capital Assets

Capital Assets are carried at cost, net of accumulated depreciation. Capital assets with an initial cost of more than $5,000 and an estimated useful life in excess of one year are depreciated. Depreciation is calculated using the straight-line method over the estimated useful lives of the depreciable assets. MCERA's building that was purchased and put in service in 2001 is amortized over 30 years. Equipment and furniture are depreciated over eight years. MCERA's pension administration system (intangible assets) is amortized over ten years.

H. Methods Used to Value Investments

GASB Statement No. 72, *Fair Value Measurement and Application*, became effective for financial statements for fiscal years beginning after June 15, 2015. This statement enhances comparability of financial statements among governments by requiring measurement of certain assets and liabilities at fair value using a consistent and more detailed definition of fair value and accepted valuation techniques. This statement also enhances fair value application guidance and related disclosures in order to provide information to financial statement users about the impact of fair value measurements on a government's financial position.

Investments are reported at fair value in the accompanying Statements of Fiduciary Net Position, which is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Cash deposited in the Merced County Treasurer's pool is stated at fair value. The value of the System's pool shares is determined on an amortized cost basis, which is not materially different from fair value.

The fair value of publicly traded fixed income and equity investments in active markets is determined by the custodian's pricing agent using nationally recognized services. The custodian's pricing agent values equity securities traded on national and international exchanges based upon the closing sale prices on the last business day of the period, and generally values fixed income securities using evaluated bid prices. For listed securities having no reported sales and for unlisted securities, fair value is based upon the last reported sales price.

The real estate investment holdings are determined by the general partners using industry standard appraisal techniques and assumptions, which are updated annually, to determine the fair value of these holdings. The appraisals incorporate subjective judgments and consider assumptions including capitalization rates, discount rates, cash flows, and other factors that are not observable in the market.

The fair value of alternative investments (private equity, infrastructure, and natural resources) is based on the partners' most recent financial statements for the quarter ending March 31 and adjusted for cash flow activities through June 30. Hedge funds are reported as of June 30. The general partners determine fair value using unobservable inputs which reflect the partnerships' own estimates about the assumptions that market participants would use in pricing the investments. The assumptions are based on the best information available in the circumstances, which might include the partnership's own data including, but not limited to, the following: projected sales, net earnings, earnings before interest, taxes, depreciation and amortization, balance sheets, public and private transactions, valuations for publicly traded companies, and/or other measures, and consideration of any other pertinent information including the types of securities held and the general partner's own assumptions about the investment. The methods used to determine the fair value of these investments typically include: (1) the market approach (whereby fair value is derived by reference to observable valuation measures for comparable companies or assets) and (2) the income approach (e.g. the discounted cash flow method).

Management, in consultation with the investment advisor, has determined the reasonableness of the procedures used to calculate fair value for real estate and alternative investments.

Due to the inherent uncertainty and degree of judgment involved in determining real estate and alternative investment valuations, the fair values reflected in the accompanying financial statements may differ significantly from values that would have been used had a readily determinable market value for the investments existed and the difference could be material. In addition, these investments are generally considered to be illiquid long-term investments, and the recorded fair values may materially differ from the amounts that eventually may be realized from the sale or other disposition of these investments.

I. Securities Transactions and Related Investment Income

Security transactions are accounted for on a trade date basis. Interest income is recognized when earned and dividend income is recognized on the ex-dividend date. Stock dividends or stock splits are recorded as memo items and do not affect the total value of the securities. The System presents, in the Statements of Changes in Fiduciary

Net Position, the net (depreciation)/appreciation in fair value of investments, which consists of realized and unrealized gains and losses on those investments.

J. Management's Estimates

The preparation of basic financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

K. Future Accounting Pronouncement

GASB Statement No. 82, *Pension Issues-an amendment of GASB Statements No. 67, No. 68, and No. 73,* becomes affective for fiscal years beginning June 15, 2016. This statement clarifies the payments that are made by an employer to satisfy contribution requirements that are identified by the pension plan terms as plan members contribution requirements should be classified as plan member contributions in the System's financial statements. It also requires that an employer's expense and expenditures for those amounts be recognized in the period for which the contributions is assessed and classified in the same manner as the employer classifies similar compensation other than pensions.

L. Reclassifications

Certain reclassifications have been made to 2015 amounts to conform to the presentation as of June 30, 2016.

**Note 3 – CASH AND INVESTMENTS**

A. Investment Stewardship

The Board of Retirement has exclusive control over all investments of the System and is responsible for establishing investment objectives, strategies and policies. Pursuant to the California Constitution and California Government Code Sections 31594 and 31595, the Retirement Board is authorized to invest in any investment the Board deems prudent.

(1) Investment Policy

The Board of Retirement has adopted an Investment Policy, which provides the framework for the management of MCERA's investments. The Investment Policy establishes MCERA's investment objectives and defines the principal duties of the Retirement Board, the custodian bank, and the investment managers. The asset allocation plan is an integral part of the Investment Policy and is designed to provide an optimum and diversified mix of asset classes with return expectations to satisfy expected liabilities while minimizing risk exposure. MCERA currently employs external investment managers to manage its assets subject to the provisions of the Investment Policy. On the following page is MCERA's adopted asset allocation policy as of June 30, 2016 and June 30, 2015.

| Asset Class | Target Allocation |
|---|---|
| US Equity | 28.4% |
| International Equity | 17.5% |
| Emerging Markets Equity | 6.1% |
| Private Equity | 7.0% |
| Real Estate | 8.0% |
| Domestic Fixed Income | 14.5% |
| High Yield Fixed Income | 5.0% |
| Hedge Funds | 4.5% |
| Infrastructure | 3.0% |
| Natural Resources | 3.0% |
| Bank Loans | 3.0% |
| Cash | 0.0% |
| | 100.0% |

(2) Rate of Return

For the fiscal years ended June 30, 2016 and June 30, 2015, the annual money-weighted rate of return on MCERA's investments was -0.34% and 1% respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

B. Cash and Short-Term Investments

Cash and cash equivalents consist of short-term investments held by the County Treasurer and MCERA's custodian bank, BNY Mellon. Cash and cash equivalents are highly liquid investments with a short maturity. Cash and cash equivalents are recorded at cost, which approximates fair value.

(1) County Treasury

Cash from deposits and the cash needed for daily operational purposes is held in a pooled account with other County funds. The County Treasury Oversight Committee is responsible for regulatory oversight of the pool.

Interest on funds in the County investment pool is computed quarterly based on the average daily balance. A deposit in the pooled account approximates fair value. The fair value of the System's cash invested with the County Treasurer totaled $1,293,296 and $1,577,066 at June 30, 2016 and 2015, respectively. Cash and investments included within the County Treasurer's pool are described in the County's Comprehensive Annual Financial Report.

(2) Short-Term Investment Funds and Funds Pooled with BNY Mellon

The short-term investment funds that are in the custody of BNY Mellon are liquidity funds. The cash is invested in short-term obligations and deposits, including U.S. treasury and agency obligations, corporate bonds, commercial paper, repurchase agreements, certificates of deposit, bankers acceptances, time deposits and floating rate notes.

All participants in the BNY Mellon pool proportionately share earnings and losses. Balances in the pooled accounts approximate fair value. At June 30, 2016 and 2015, short-term investments totaled $9,536,583 and $9,183,045, respectively, which is the total of cash invested with BNY Mellon and other cash and cash equivalents with BNY Mellon.

MCERA's cash, short-term investments and investments stated at fair value as of June 30, 2016 and 2015 are as follows:

| | Fair Value | |
|---|---|---|
| **Cash and Short-term Investments** | **2016** | **2015** |
| Cash invested with Merced County Treasurer | $1,293,296 | $1,577,066 |
| Cash invested with BNY Mellon | 5,960,492 | 5,379,699 |
| Other cash and cash equivalents with BNY Mellon | 3,576,091 | 3,803,346 |
| Securities lending collateral | 4,972,033 | 2,638,976 |
| Total cash and short-term investments | 15,801,912 | 13,399,087 |
| **Investments** | | |
| US government and agency obligations | 63,790,914 | 53,798,734 |
| Domestic fixed income | 108,687,312 | 111,503,503 |
| Common stocks (domestic) | 39,432,005 | 40,995,445 |
| Common stocks (index funds) | 160,011,327 | 169,455,988 |
| Common stocks (international) | 138,263,801 | 154,854,029 |
| Common stocks (international index funds) | 18,259,912 | - |
| Real estate | 58,116,070 | 53,867,884 |
| Alternative investments | 70,181,549 | 71,533,038 |
| Total Investments | 656,742,890 | 656,008,621 |
| Total | $672,544,802 | $669,407,708 |

C. Fair Value Measurements

Fair Value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. MCERA holds significant amounts of investments that are measured at fair value on a recurring basis. Because investing is a key part of the plan's activities, GASB Statement No. 72 establishes a hierarchy of inputs to measure fair value. That hierarchy has three levels. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities. Level 2 inputs are inputs, other than quoted prices included within level 1, that are observable for the asset or liability, either directly or indirectly. Finally, level 3 inputs are unobservable inputs.

Inputs used to measure fair value might fall in different levels of the fair value hierarchy. Categorization within the hierarchy is based on the lowest level input that is significant to the fair value measurement.

Equity securities are generally valued based on quoted prices in an active market and are therefore categorized in level 1. In the absence of quoted market prices, such as equity securities that trade infrequently or not at all, valuations are based on the last traded price or a price provided by the investment managers and are generally categorized in level 3.

Fixed income securities classified in level 2 are valued using the latest bid prices or evaluated quotes from independent pricing vendors. The third-party vendors use a variety of methods when pricing these securities that incorporate relevant observable market data to arrive at an estimate of what a buyer in the marketplace would pay for a security under current market conditions. When independent price sources are not available, debt securities are priced based on the last traded price or a valuation provided by the investment manager and are categorized in level 3.

Funds priced using a net asset value (NAV) that is published daily and validated with a sufficient level of observable activity are categorized in level 1. If observable activity is limited, yet supports that the NAV represents an exit value of the security at the measurement date, the securities are categorized in level 2. Investments in nongovernmental entities that are measured at NAV as a practical expedient, such as alternative investments and real estate investments, are excluded from the fair value hierarchy if the NAV per share (or its equivalent) was calculated in a manner consistent with the Financial Accounting Standards Board's measurement principles for investment companies. Funds not meeting this criteria are categorized in level 3.

Investments in real estate, other than collective investment funds which are categorized in level 3, have been valued based on the NAV per share (or its equivalent), as provided by the general partner. This type includes three funds structured as limited partnerships. These investments can never be redeemed with the funds. Distributions from each fund will be received as the underlying investments of the funds are liquidated. It is expected that the underlying assets of the funds will be liquidated over the next 10 to 15 years.

Hedge funds include one fund structured as a limited partnership and one fund organized as an open-end exempted investment company that pursue investments in event driven, global macro, long/short equity, multi-strategy, merger arbitrage, capital structure arbitrage, and structured credit strategies. The fair values of the investments in these types has been determined using the NAV per share (or its equivalent) of the investments, as provided by the general partner. For the open-end fund, redemptions may be subject to restrictions, including lock-up periods and/or gate provisions, which prohibit redemptions for a specific time after capital is initially invested, or subject to limitations on the amount that can be withdrawn on any single redemption date.

Infrastructure includes two funds structured as limited partnerships that invest primarily in global infrastructure investments. The fair values of the investments in these types has been determined using the NAV per share (or its equivalents) of the investment as provided by the general partner. These funds have a finite term. Distributions will be received as the underlying investments are sold, which is expected to occur in 12 to 15 years.

Natural resources includes two funds structured as limited partnerships that invest primarily in debt, equity, partnership interests, direct asset investments, working interests and royalty interests of public and private mining and metals companies and companies within the energy markets including but limited to, companies engaged in the exploration and production of oil and natural gas, coal, midstream, energy services, refining and marketing, power generation, renewable energy, and other commodity driven sectors. The fair values of the investments in these types has been determined using the NAV per share (or its equivalents) of the investment as provided by the general partner. These funds have a finite term. Distributions will be received as the underlying investments are sold, which is expected to occur over the next 7 to 10 years.

Private equity includes fourteen funds structured as limited partnerships participating in diverse strategies including venture capital and special equity partnerships (buy-outs, mezzanine funds, and secondary funds). The fair values of the investments in these types has been determined using the NAV per share (or its equivalents) of the investment as provided by the general partner. These funds have a finite term. Distributions will be received as the underlying investments are sold, which is expected to occur over the next 5 to 15 years.

The System has the following recurring fair value measurements as of June 30, 2016:

| | | Fair Value Measurements Using | | |
|---|---|---|---|---|
| **Investments by Fair Value Level** | **June 30, 2016** | **Quoted Prices in Active Markets for Identical Assets (Level 1)** | **Significant Other Observable Inputs (Level 2)** | **Significant Unobservable Inputs (Level 3)** |
| Common Stock | | | | |
| Domestic | $39,432,005 | - | - | $39,432,005 |
| Domestic Index Funds | 160,011,327 | - | - | 160,011,327 |
| International | 138,263,801 | $34,718,212 | - | 103,545,589 |
| International Index Fund | 18,259,912 | - | - | 18,259,912 |
| US Government and Agency Obligations | | | | |
| US Treasury and TIPS | 23,407,122 | - | $23,407,122 | - |
| US Government Agency Obligations | 40,383,792 | - | 40,383,792 | - |
| Domestic Fixed Income | | | | |
| Asset Backed Securities | 6,586,012 | - | 6,586,012 | - |
| Bank Loans | 21,088,831 | - | - | 21,088,831 |
| Collateralized Mortgage Obligations | 595,997 | - | 595,997 | - |
| Commercial Mortgage Backed Securities | 2,089,323 | - | 2,089,323 | |
| Corporate and Other Credit | 43,943,503 | - | 43,943,503 | - |
| High Yield | 34,383,646 | - | - | 34,383,646 |
| Real Estate | 7,847,167 | - | - | 7,847,167 |
| **Total Investment by Fair Value Level** | $536,292,438 | $34,718,212 | $117,005,749 | $384,568,477 |

**Investments Measured at the Net Asset Value (NAV)**

| | |
|---|---|
| Real Estate | $50,268,903 |
| Alternative Investments | |
| Hedge Funds | 27,573,646 |
| Infrastructure | 3,592,536 |
| Natural Resources | 1,647,335 |
| Private Equity | 37,368,032 |
| Total Alternative Investments | 70,181,549 |
| Total Investments Measured at NAV | 120,450,452 |
| Total Investments Measured at Fair Value | $656,742,890 |

**Investments Measured at the Net Asset Value**

| | Fair Value | Unfunded Commitments | Redemption Frequency | Redemption Notice Period |
|---|---|---|---|---|
| Real Estate* | $50,268,903 | $18,112,780 | Quarterly | Indefinite |
| Alternative Investments | | | | |
| Hedge Funds** | 27,573,646 | - | Annual | 90 Day |
| Infrastructure | 3,592,536 | 16,348,037 | n/a | n/a |
| Natural Resources | 1,647,335 | 10,984,224 | n/a | n/a |
| Private Equity | 37,368,032 | 13,421,935 | n/a | n/a |
| Total | $120,450,452 | $58,866,976 | | |

*Liquidity varies by fund. Redemption is given by a pro rata share of funds available for disbursement.
**One fund has a two your initial lock up period with quarterly redemption, 60 day notice period, and subject to available capital.

The System has the following recurring fair value measurements as of June 30,2015:

| | | Fair Value Measurements Using | | |
|---|---|---|---|---|
| | June 30, 2015 | Quoted Prices in Active Markets for Identical Assets (Level 1) | Significant Other Observable Inputs (Level 2) | Significant Unobservable Inputs (Level 3) |
| **Investments by Fair Value Level** | | | | |
| Common Stock | | | | |
| Domestic | $40,995,445 | - | - | $40,995,445 |
| Domestic Index Funds | 169,455,988 | - | - | 169,455,988 |
| International | 154,854,029 | $37,959,014 | - | 116,895,015 |
| US Government and Agency Obligations | | | | |
| US Treasury and TIPS | 37,769,202 | - | $37,769,202 | - |
| US Government Agency Obligations | 16,029,532 | - | 16,029,532 | - |
| Domestic Fixed Income | | | | |
| Asset Backed Securities | 6,959,752 | - | 6,959,752 | - |
| Bank Loans | 20,528,310 | - | - | 20,528,310 |
| Collateralized Mortgage Obligations | 737,433 | - | 737,433 | - |
| Commercial Mortgage Backed Securities | 2,757,909 | - | 2,757,909 | - |
| Corporate and Other Credit | 45,693,390 | - | 45,693,390 | - |
| High Yield | 34,826,709 | - | - | 34,826,709 |
| Real Estate | 7,756,742 | - | - | 7,756,742 |
| **Total Investments by Fair Value Level** | $538,364,440 | $37,959,014 | $109,947,218 | $390,458,209 |

| | |
|---|---|
| **Investments Measured at the Net Asset Value (NAV)** | |
| Real Estate | $46,111,143 |
| Alternative Investments | |
| Hedge Funds | 29,931,709 |
| Infrastructure | 2,123,517 |
| Private Equity | 39,477,811 |
| Total Alternative Investments | 71,533,038 |
| Total Investments Measured at NAV | 117,644,180 |
| Total Investments Measured at Fair Value | $656,008,621 |

**Investments Measured at the Net Asset Value**

| | Fair Value | Unfunded Commitments | Redemption Frequency | Redemption Notice Period |
|---|---|---|---|---|
| Real Estate* | $46,111,143 | - | Quarterly | Indefinite |
| Alternative Investments | | | | |
| Hedge Funds** | 29,931,709 | - | Annual | 90 Day |
| Infrastructure | 2,123,517 | 17,700,559 | n/a | n/a |
| Natural Resources | - | 7,500,000 | n/a | n/a |
| Private Equity | 39,477,811 | 23,780,578 | n/a | n/a |
| Total | $117,644,180 | $48,981,137 | | |

*Liquidity varies by fund. Redemption is geven by a prorata share of funds available for disbursement.

**One fund has a two year initial lock up period with quarterly redemption, 60 day notice period, and subject to available capital.

D. Securities Lending Program

State statutes and the Board of Retirement policies permit MCERA to participate in a securities lending program. MCERA's custodian, BNY Mellon and the lending agent Mellon Global Securities Lending administer its securities lending program. Securities lending is an investment management activity that mirrors the fundamentals of a loan transaction. Securities are lent to brokers and dealers (borrower) and in turn, MCERA receives collateral.

Collateral received may include cash, letters of credit or securities. The lending agent invests cash collateral received in short-term investment funds, money market funds and other similar investments the custodian may select. If securities or letters of credit are received as collateral, MCERA cannot pledge or sell the securities collateral unless the borrower defaults. The contract with the security lending agent requires them to indemnify MCERA if the borrower fails to return the securities (or if the collateral is not sufficient to replace the securities lent) or if the borrower fails to pay MCERA for income distributions by the securities' issuers while the securities are on loan.

The maturities of investments made with collateral do not match the maturities of loaned securities. BNY Mellon continually monitors the traders booking the loans and the reinvestment team using the collateral. The investment pool is not rated.

The following represents the weighted average maturity, average duration, and mismatched days of the Mellon Global Securities Lending short-term investment pool as of June 30, 2016 and 2015:

| Date | Weighted Average Maturity | Average Duration | Mis-Match |
|---|---|---|---|
| June 30, 2016 | 1 day | 49 days | 0 days |
| June 30, 2015 | 1 day | 82 days | 0 days |

Under this borrowing arrangement, the lending agent is responsible for maintaining an adequate level of collateral in an amount equal to approximately 102% of the market value of domestic loaned securities and 105% with respect to foreign securities except in the case of loans of foreign securities which are denominated and payable in U.S. dollars, in which event the required percentage shall be 102%. If the collateral received falls below the required percentage, the lending agent shall require that the borrower deliver an amount of additional collateral by the close of the next business day. As of June 30, 2016 and 2015, MCERA has no credit risk exposure to borrowers because the amounts MCERA owes the borrower exceed the amounts the borrower owes to MCERA.

MCERA may, in its sole and absolute discretion, direct the lending agent to terminate any loan at any time and for any reason.

As of June 30, 2016 the fair value of securities on loan and the total cash and non-cash collateral received for those securities on loan were $6,599,851 and $6,752,200. MCERA's securities lending cash collateral is invested in pooled funds managed by BNY Mellon Asset Servicing, which are not rated by credit rating agencies. MCERA's income net of expenses from securities lending was $17,614 for the year ended June 30, 2016.

| Security Type | Fair Value of Securities on Loan | Cash Collateral | Non-Cash Collateral |
|---|---|---|---|
| Corporate | $529,125 | $39,880 | $500,139 |
| Equity | 5,280,110 | 4,932,153 | 473,219 |
| U.S T-Notes/T-Bonds | 790,616 | - | 806,809 |
| Total | $6,599,851 | $4,972,033 | $1,780,167 |

As of June 30, 2015 the fair value of securities on loan and the collateral received for those securities on loan were $11,864,301 and $12,133,330. MCERA's income net of expenses from securities lending was $22,369 for the year ended June 30, 2015.

| Security Type | Fair Value of Securities on Loan | Cash Collateral | Non-Cash Collateral |
|---|---|---|---|
| Corporate | $1,373,694 | - | $1,424,925 |
| Equity | 2,582,910 | $2,638,976 | - |
| U.S T-Notes/T-Bonds | 7,907,697 | - | 8,069,429 |
| Total | $11,864,301 | $2,638,976 | $9,494,354 |

E. Commission Recapture Policy

In order to minimize the net cost of trading, MCERA encourages its investment managers, on a "best efforts" basis to execute 25% to 35% of total trades annually through brokers who have a commission recapture program. MCERA's policies require investment managers to seek the best price and execution on all trades. This means that commission recapture trades should only be executed when such trades meet this standard. If an investment manager can execute the trade through MCERA's commission recapture brokerage firms while not incurring any incremental commission or market impact costs, then MCERA would like the manager to do so. This program should not interfere with or reduce an investment manager's incentive to reduce trading costs.

F. Alternative Investments

The balance of the unfunded capital to MCERA's private equity funds as of June 30, 2016 was $58,866,976 and as of June 30, 2015 was $48,981,137. Capital invested in private equity partnerships is subject to a relatively high degree of risk as compared to other potential investments, with the assumption that the investor will be rewarded with higher returns for that assumption of risk, (i.e. the "risk/return trade-off"). Controlling risk in the private equity portfolio is equally as important as seeking higher returns. MCERA controls risk by diversifying the portfolio based on geographic and economic region, liquidity, vintage year, firm, and time.

***Geographic and Economic Region,*** referring to the selection of private equity investments, the portfolio does not favor particular economic or geographic regions. Most likely, the focus is globally oriented.

***Liquidity risk*** is managed by minimizing the possibility of forced sales that may arise from exceeding the maximum exposure limits or lowering asset allocation exposure limits. Exposure through a fund of funds minimizes this risk.

***Vintage year risk*** refers to the variability of private equity commitments over time. A secondary investment that is a vehicle in the special situation subclass allows the portfolio to gain prior year vintage exposure, further minimizing vintage risk.

***Firm risk*** is the amount of exposure to a private equity general partner. The maximum commitment to private equity is 5-8% of the total fund. There are no limits on commitments to individual partners or funds.

***Time Risk*** refers to the long duration of the investment, which makes it difficult to predict business, economic and managerial developments that may have a significant impact on the value of the investments.

G. Custodial Credit Risk

The custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, a government will not be able to recover deposits or will not be able to recover collateral securities that are in the possession of an outside party. The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, a government will not be able to recover the value of investment or collateral securities that are in the possession of an outside party. MCERA does not have a formal policy for custodial credit risk. At June 30, 2016 and 2015, MCERA had no investments that were exposed to custodial credit risk.

H. Credit Risk Concentration

Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investment in a single issuer. As of June 30, 2016 and 2015, the System had no single issuer that exceeded 5% of total investments or fiduciary net position. Investments issued or explicitly guaranteed by the U.S government and investments in mutual funds, external investment pools, and other pooled investments are excluded. MCERA's investment policy does not allow for an investment in any one issuer that is in excess of 5% of the value of a portfolio and no single industry (based on North American Industry Classification System (NAICS) codes) can represent more than 15% of the market value of the investment portfolio. These single security and single industry restrictions do not apply to U.S. government issued or guaranteed investments, investments in mutual funds, external investment pools, and other pooled investments.

I. Credit Risk

Credit risk is the risk that an issuer or other counterparty to a debt instrument will not fulfill its obligation as described by nationally recognized statistical rating organizations, rating agencies, as of the date of the financial statements. An investment grade security is defined as a security which has been rated investment grade (BBB or higher) by at least one (but preferably two) of the three nationally recognized rating agencies; Fitch Ratings, Moody's Investor Service, and Standard & Poor's. MCERA's core fixed income portfolio requires that no more than 5% of an investment manager's fixed income portfolio be invested in below investment grade rated securities (BB or B rated bonds). No security rated below single B may be purchased at any time. Securities that have at least a single B, but subsequently fall below single B ratings, shall be sold in an orderly manner. This is the case of MCERA's workout portfolio that is managed by MCERA's core fixed income manager. As of June 30, 2016 MCERA's workout portfolio has a fair value of $1 million. These securities are being liquidated or held for longer time frames by comparing their individual fundamental values against executable market prices. MCERA's High Yield portfolio may allocate up to 20% in CCC rated securities. Currently MCERA is invested in a commingled high yield fund that holds a B3 rating by Moody's. The County's pool and the short-term investment funds held with fiscal agent are unrated.

The table below presents the Moody's credit quality ratings of fixed income securities at June 30, 2016 and 2015:

| Quality | Aaa | Aa | A | Baa | Ba | B | Caa | Ca | NR* | NA** |
|---|---|---|---|---|---|---|---|---|---|---|
| Percent (%) of Fixed Income as of June 30, 2016 | 3.37% | 1.96% | 11.44% | 11.46% | .02% | 19.97% | .11% | .24% | 32.14% | 19.29% |
| Percent (%) of Fixed Income as of June 30, 2015 | 3.66% | 3.01% | 15.82% | 12.82% | .03% | 24.11% | .17% | .31% | 20.91% | 19.16% |

*NR represents those securities that are not rated and includes FNMA and FHLMC mortgage backed securities that are not rated by credit rating agencies, but are perceived to have an implicit guarantee by the U.S. Government.
** NA represents those securities that are not applicable to the rating disclosure requirements.

J. Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. MCERA's Investment Policy Statement does not have a formal policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates. However, MCERA's bond portfolios are managed duration neutral to their benchmarks, the Barclays U.S. Aggregate Bond Index, and the Merrill Lynch High Yield Master II.

As of June 30, 2016 and 2015 the County's pool has a fair value of $773,174,140 and $634,015,057 respectively and a weighted average maturity of 468 and 522 days, respectively.

As of June 30, 2016 and 2015 the weighted average maturity of the short-term investment pooled funds with BNY Mellon was 48 days and 37 days, respectively.

The following table presents the fair value, weighted percentage of each sector, and the modified duration of MCERA's fixed income investments as of June 30, 2016:

| | Core Bond Portfolio | | | High Yield Portfolio | | |
|---|---|---|---|---|---|---|
| **Investment Type** | **Fair Value 2016** | **Weight of Fixed Income 2016** | **Modified Duration (years) 2016** | **Fair Value 2016** | **Weight of Fixed Income 2016** | **Effective Duration (years) 2016** |
| U.S. government agency obligations | $40,383,792 | 29.24% | 3.00 | | | |
| Commercial mortgage backed securities | 2,089,323 | 1.51% | 3.34 | | | |
| Asset backed securities | 6,586,012 | 4.77% | 1.97 | | | |
| U.S. treasury and TIPS | 23,407,122 | 16.95% | 7.51 | | | |
| Corporate and other credit | 43,943,503 | 31.82% | 7.07 | | | |
| Collateralized mortgage obligations | 595,997 | 0.43% | 5.39 | | | |
| Commingled fund | 21,088,831 | 15.27% | 0.19 | $34,383,646 | 100.00% | 3.53 |
| Total Fair Value | $138,094,580 | 100.00% | | $34,383,646 | 100.00% | |
| Portfolio Effective Duration | | | 5.42 | | | 3.53 |

The following table presents the fair value, weighted percentage of each sector, and the effective duration of MCERA's fixed income investments as of June 30, 2015:

| Investment Type | Core Bond Portfolio Fair Value 2015 | Core Bond Portfolio Weight of Fixed Income 2015 | Core Bond Portfolio Modified Duration (years) 2015 | High Yield Portfolio Fair Value 2015 | High Yield Portfolio Weight of Fixed Income 2015 | High Yield Portfolio Effective Duration (years) 2015 |
|---|---|---|---|---|---|---|
| U.S. government agency obligations | $37,769,202 | 28.95% | 4.42 | | | |
| Commercial mortgage backed securities | 2,757,909 | 2.11% | 2.92 | | | |
| Asset backed securities | 6,959,752 | 5.33% | 2.46 | | | |
| U.S. treasury and TIPS | 16,029,532 | 12.29% | 7.92 | | | |
| Corporate and other credit | 45,693,390 | 35.02% | 6.61 | | | |
| Collateralized mortgage obligations | 737,433 | 0.57% | 5.07 | | | |
| Commingled fund | 20,528,310 | 15.73% | 0.21 | $34,826,709 | 100.00% | 3.61 |
| Total Fair Value | $130,475,528 | 100.00% | | $34,826,709 | 100.00% | |
| Portfolio Effective Duration | | | 5.53 | | | 3.61 |

K. <u>Foreign Currency</u>

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. MCERA's investment policy on foreign currency is as follows:

> MCERA's international equity managers are permitted to invest in developed countries and will be measured against a reasonable version of the MSCI EAFE Index (Europe, Australia, and Far East). Assets in international equity portfolios will be primarily composed of foreign ordinary shares and American Depository Receipts (including ADR's that are 144A securities). Management firms will continually monitor the country, currency, sector, and security selection risks associated with their international portfolios. All the risks will be included in the manager's quarterly reports and performance attribution based on these factors. Currency hedging, consistent with the stated derivative policy, is an acceptable investment activity. The use of currency futures and forward currency contracts are permitted to assist investment managers in mitigating portfolio risk.

As of June 30, 2016 and 2015, MCERA did not hold any derivative instruments.

The following table represents securities and dividends receivable held in a foreign currency as of June 30, 2016 and 2015:

| | Fair Value (U.S. Dollars) | |
|---|---|---|
| **Currency** | **2016** | **2015** |
| Brazil real | $440,889 | $802,641 |
| Czech koruna | 390,945 | 455,112 |
| Canadian dollar | 555,360 | - |
| Euro currency | 8,298,790 | 6,833,327 |
| Hong Kong dollar | 838,904 | 1,213,621 |
| Japanese yen | 2,411,475 | 3,623,855 |
| Mexican peso | 597,796 | - |
| Norwegian krone | 1,284,306 | 2,123,210 |
| United Kingdom pound sterling | 3,770,654 | 3,873,708 |
| Singapore dollar | 585,482 | 768,288 |
| South Korean won | 1,167,646 | 1,461,196 |
| Swedish krona | 737,929 | 868,533 |
| Swiss franc | 1,096,394 | 1,202,541 |
| Turkish lira | 615,637 | 983,326 |
| Total foreign currency | $22,792,207 | $24,209,358 |

L. Derivatives

MCERA's investment policy permits the use of derivative instruments to minimize the exposure of certain investments to adverse fluctuations in financial and currency markets and enhance yields. The system does not use derivatives for speculative use or to create leverage. Derivatives permitted by MCERA's investment policy are financial futures (if exchange traded), currency forward contracts and currency options (exchange and OTC traded) and also derivative instruments which include interest rate swaps, options (if exchange traded), caps and floors as they apply to the above stated allowable derivative investments. The investments in futures contracts bear credit risk in that parties to the contracts may fail to perform according to the terms of the contract. Also, the investments may be subject to market risk due to a change in the price of the underlying securities. Floating-rate investments are investments with interest payments that float or adjust periodically based upon a predetermined benchmark. While the market value of a floating-rate security is relatively insensitive to changes in interest rates, the income received is highly dependent upon the level of the reference rate over the life of the investment. Total return may be less than anticipated if future interest rate expectations are not met. As with any fixed income investment, there is a risk that the issuer will be unable to meet its payment obligations. MCERA does not have any derivative instruments as defined by GASB 53 as of June 30, 2016 and 2015.

**Note 4 – RESERVES**

As required by the County Employees Retirement Law of 1937 and the Board of Retirement's policy, the following reserves for Net Position Restricted for Pensions have been established to account for the members', employers', and retirees' contributions. MCERA maintains the following reserves at June 30, 2016 and 2015.

A. Active Members' Reserves

These reserves represent the cumulative contributions made by active employees. Additions include member contributions and related earnings. Deductions include refunds of member contributions and, upon retirement, the member contributions plus interest credited to their account are transferred from this reserve to the Retired Members' Reserves.

B. Employer Advance Reserves

These reserves represent the cumulative contributions made by the employers for future retirement payments to current active members. Additions include contributions from the employer and related earnings. Deductions include transfers to the Retired Members' Reserve, and lump sum death benefits.

C. Retired Members' Reserves

These reserves are established upon the retirement of an employee. Employee contributions plus interest earnings credited to the employee account are transferred from the Active Member Reserves to the Retired Members' Reserves. In addition, the present value of the actuarially determined pension benefits is also transferred from the Employer Advance Reserves to the Retired Members' Reserves. From these reserves, the System pays the retiree pension benefits in an amount computed in accordance with the 1937 Act.

D. Interest Fluctuation Reserve

The Interest Fluctuation Reserve is used for interest crediting purposes and for holding any funds allocated by the Retirement Board as a reserve for future interest earnings deficiencies. To the extent that net earnings are available, interest is credited to specified reserves. Interest is credited semi-annually according to MCERA's interest crediting policy.

E. Market Value Fluctuation Reserve

The Board of Retirement established this "designation" account on June 30, 1997 to track the increase (or decrease) in the market value of the MCERA assets.

The annual change in market value of MCERA's assets is as follows:

| **Accumulated Through 2013** | **2014** | **2015** | **2016** | **Total** |
|---|---|---|---|---|
| $35,100,004 | $54,489,150 | $(1,601,763) | $(49,573,098) | $38,414,293 |

F. Contingency Reserve

The Contingency Reserve is comprised of surplus/excess earnings that are held as a reserve against deficiencies in investment earnings in other years, losses on investments, and other contingencies. As of June 30, 2012, the Contingency Reserve was not funded and all balances were transferred to the Interest Fluctuation Reserve. The Contingency Reserve will be funded and excluded from the actuarial value of assets only when the Plan's funded ratio is at or above 75%.

A summary of the various reserve accounts, which comprise fiduciary net position restricted for pensions at June 30, 2016 and 2015 follows on the next page.

| Reserve | 2016 | 2015 |
|---|---|---|
| Active Members' | $99,056,799 | $94,371,079 |
| Employer Advance | 97,418,803 | 54,991,997 |
| Retired Members' | 327,318,139 | 363,943,635 |
| Interest Fluctuation | 107,807,790 | 71,025,234 |
| Market Value Fluctuation | 38,414,293 | 87,987,424 |
| Total Reserves | $670,015,824 | $672,319,369 |

## Note 5 – NET PENSION LIABILITY OF PARTICIPATING EMPLOYERS

MCERA engages on an annual basis, an independent actuarial consulting firm, Cheiron, to conduct its annual actuarial valuation.

A. Actuarial Assumptions

The actuarial assumptions used in the June 30, 2015 and June 30, 2014 valuation were based on the results of an actuarial experience study for the period July 1, 2010 through June 30, 2013. Measurements as of June 30, 2016 and 2015, respectively, are based on the the System's fiduciary net position as of June 30, 2016 and 2015 and the Total Pension Liability as of June 30, 2015 and 2014, using update procedures to roll forward to MCERA's fiscal year end of June 30, 2016 and 2015, respectively. There were no significant events between the valuations as of June 30, 2015 and June 30, 2016, so the roll forward procedures only included the addition of service cost and interest cost offset by actual benefit payments.

The components of the employers' Net Pension Liability were as follows:

| | FYE June 30, 2016 | FYE June 30, 2015 |
|---|---|---|
| Total Pension Liability | $1,171,412,304 | $1,136,274,714 |
| Plan Fiduciary Net Position | (670,015,824) | (672,319,369) |
| Net Pension Liability | $501,396,480 | $463,955,345 |
| Fiduciary Net Position as a Percentage of the Total Pension Liability | 57.19% | 59.17% |

The Total Pension Liabilities as of June 30, 2016 and June 30, 2015 were determined based on the June 30, 2015 and June 30, 2014 actuarial valuations, respectively, rolled forward to June 30, 2016 and June 30, 2015, using the following actuarial assumptions applied to all periods included in the measurement:

| | ACTUARIAL VALUATION ASSUMPTIONS |
|---|---|
| Valuation Date | June 30, 2015 and June 30, 2014 |
| Investment Rate of Return | 7.75% |
| Projected Salary Increases | 3.00%, plus service-based rates |
| Attributed to Inflation | 3.00% |
| Cost-of-Living Adjustments | For Tier 1, 100% of CPI to 3.0% annually with banking, assumed to be 2.60% annually |

Post-retirement mortality rates were based on the RP2000 Combined tables projected to the year 2027 with adjustments for mortality improvements based on the Society of Actuaries Scale BB.

Pre-retirement mortality, withdrawal, disability and service retirement rates vary by age, service, gender and classification.

B. Long-Term Expected Rate of Return

The long-term defined benefit pension plan return expectations were determined using a building-block approach. An inflation forecast is the baseline and various real return premiums (e.g. bonds, equities, etc.) are added to create nominal return expectations for each asset class. These expectations are combined to produce the long-term expected rate of return by weighting the expected nominal rates of return by the target asset allocation percentages and including an expected return from rebalancing uncorrelated asset classes. Best estimates of geometric real rates of return for each major asset class included in the target asset allocation as of June 30, 2016 and June 30, 2015 are summarized in the table below:

**Long-Term Expected Real Rate of Return**

| Asset Class | FYE June 30, 2016 | FYE June 30, 2015 |
|---|---|---|
| US Equity | | |
| US Large Cap | 5.1% | 5.1% |
| US Small Cap | 5.6% | 5.5% |
| International Equity | 5.8% | 5.7% |
| Emerging Markets Equity | 6.8% | 6.5% |
| Private Equity | 7.5% | 7.5% |
| Real Estate | 3.7% | 3.7% |
| Domestic Fixed Income | 0.8% | 0.5% |
| High Yield Fixed Income | 3.6% | 3.0% |
| Hedge Funds | 2.8% | 2.8% |
| Infrastructure | 3.6% | 3.5% |
| Natural Resources | 5.6% | 5.3% |
| Bank Loans | 2.5% | 2.4% |
| Cash | 0.4% | -0.5% |

C. Discount Rate

The discount rate used to measure the Total Pension Liability was 7.75%. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current contribution rate and that contributions from the employers will be made at contractually required rates, actuarially determined. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

D. Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the employers' net pension liability calculated using the discount rate of 7.75%, as well as what the employers' net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6.75%) or one percentage point higher (8.75%) than the current rate:

| | | **1% Decrease (6.75%)** | **Current Rate (7.75%)** | **1% Increase (8.75%)** |
|---|---|---|---|---|
| 2016 | Net Pension Liability | $641,199,128 | $501,396,480 | $384,666,846 |
| 2015 | Net Pension Liability | $601,683,685 | $463,955,345 | $349,169,185 |

**Note 6 – LITIGATION**

MCERA is a defendant in various lawsuits and claims arising in the ordinary course of its operations. MCERA is a respondent in litigation challenging the constitutionality of legislation (Assembly Bill 197) that took effect on January 1, 2013, which resulted in MCERA excluding certain pay items from retirement allowance calculations that MCERA previously had included, primarily, as the result of a settlement agreement and prior litigation over the settlement agreement. The State of California intervened in the case to defend the constitutionality of AB 197. The State moved to consolidate the case with other similar cases pending in other jurisdictions and to transfer the consolidated cases to Contra Costa County Superior Court. The Contra Costa Superior Court issued a decision granting some of the requested equitable relief and denying other requested relief. The State appealed the Superior Court's decision as to the case against MCERA, and the petitioners in the case cross-appealed. With similar cases being heard in the California Supreme Court a decision is expected during 2017. MCERA's management and legal counsel estimate that the ultimate outcome of such litigation will not have a material effect on MCERA's financial statements.

## Merced County Employees' Retirement Association
## Required Supplementary Information

### Schedule of Changes in Net Pension Liability and Related Ratios
### For the Years Ending June 30, 2016, 2015, and 2014*

| **Total Pension Liability** | **2016** | **2015** | **2014** |
|---|---|---|---|
| Service cost (MOY) | $19,384,855 | $19,672,490 | $19,384,434 |
| Interest (includes interest on service cost) | 86,323,551 | 84,203,356 | 81,090,569 |
| Changes of benefit terms | - | - | - |
| Differences between expected and actual experience | (5,488,413) | (12,380,077) | - |
| Changes of assumptions | - | - | - |
| Benefit payments, including refunds of member contributions | (65,082,403) | (62,951,924) | (58,042,021) |
| Net change in total pension liability | 35,137,590 | 28,543,845 | 42,432,982 |
| Total pension liability - beginning | 1,136,274,714 | 1,107,730,869 | 1,065,298,068 |
| Total pension liability - ending | $1,171,412,304 | $1,136,274,714 | $1,107,731,050 |
| | | | |
| **Fiduciary net position** | | | |
| Contributions - member | $9,042,663 | $8,945,316 | $9,642,819 |
| Contributions - employer | 56,617,088 | 52,005,656 | 48,032,338 |
| Net investment income | (388,209) | 19,318,849 | 96,219,056 |
| Benefits payments, including refunds of member contributions | (65,082,403) | (62,951,924) | (58,042,021) |
| Administrative expense | (2,492,684) | (2,323,446) | (1,547,347) |
| Net change in fiduciary net position | $(2,303,545) | $14,994,451 | $94,304,845 |
| Fiduciary net position - beginning | 672,319,369 | 657,324,918 | 563,020,073 |
| Fiduciary net position - ending | $670,015,824 | $672,319,369 | $657,324,918 |
| Net pension liability - ending | $501,396,480 | $463,955,345 | $450,406,132 |
| Fiduciary net position as a percentage of the total pension liability | 57.19% | 59.17% | 59.34% |
| Covered-employee payroll | $114,397,644 | $110,111,994 | $110,259,316 |
| Net pension liability as a percentage of covered-employee payroll | 438.29% | 421.35% | 408.50% |

**Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.*

# Merced County Employees' Retirement Association
# Required Supplementary Information

Schedule of Employer Contributions

The schedule of employer contributions shows whether the employer has made contributions that are consistent with an actuarial method of funding the benefits to be provided consistent with the parameters established by GASB Statement 67.

**Schedule of Employer Contributions**
Last 10 Fiscal Years
Dollar Amounts in Thousands

| | **2016** | **2015** | **2014** | **2013** | **2012** |
|---|---|---|---|---|---|
| Actuarially Determined Contribution | $56,617 | $52,006 | $48,032 | $43,784 | $40,263 |
| Contributions in Relation to the Actuarially Determined Contribution | 56,617 | 52,006 | 48,032 | 43,784 | 40,263 |
| Contribution Deficiency/(Excess) | $ - | $ - | $ - | $ - | $ - |
| Covered-Employee Payroll | $114,398 | $110,112 | $110,259 | $109,410 | $111,567 |
| Contributions as a Percentage of Covered-Employee Payroll | 49.49% | 47.23% | 43.56% | 40.02% | 36.09% |

| | **2011** | **2010** | **2009** | **2008** | **2007** |
|---|---|---|---|---|---|
| Actuarially Determined Contribution | $36,662 | $29,137 | $27,883 | $23,751 | $23,232 |
| Contributions in Relation to the Actuarially Determined Contribution | 36,662 | 29,137 | 27,883 | 23,751 | 23,232 |
| Contribution Deficiency/(Excess) | $ - | $ - | $ - | $ - | $ - |
| Covered-Employee Payroll | $117,296 | $119,166 | $119,043 | $111,764 | $103,830 |
| Contributions as a Percentage of Covered-Employee Payroll | 31.26% | 24.45% | 23.42% | 21.25% | 22.38% |

Schedule of Investment Returns

The money-weighted rate of return is equivalent to the internal rate of return (IRR). Money-weighted rate of return incorporates the size and timing of cash flows.

**Schedule of Investment Returns**
Fiscal Years ending June 30

| | **2016** | **2015** | **2014** | **2013** |
|---|---|---|---|---|
| Annual money-weighted rate of return, net of investment expense | -0.3% | 1.1% | 17.0% | 11.8% |

**Schedule is intended to show information for 10 years. Additional years will be displayed as they become available*

# Merced County Employees' Retirement Association
# Notes to Required Supplementary Information

**NOTE 1 - CHANGES OF BENEFIT TERMS**

There were no changes in benefit terms for the fiscal year ended June 30, 2016.

**NOTE 2 - CHANGES OF ASSUMPTIONS AND METHODS**

The decision was made to switch from Actuarial Value to Market Value of Assets for the valuation as of June 30, 2015.

**NOTE 3 - METHODS AND ASSUMPTIONS USED IN CALCULATIONS OF ACTUARIALLY DETERMINED CONTRIBUTIONS**

| | 2016 | 2015 | 2014 | 2013 | 2012 |
|---|---|---|---|---|---|
| Valuation Date(s) | June 30, 2014 | June 30, 2013 | June 30, 2012 | June 30, 2013 | June 30, 2011 |
| Effective Date(s) | July 1, 2015 - June 30, 2016 | July 1, 2014 - June 30, 2015 | July 1, 2013 - June 30, 2014 | July 1, 2012 - June 30, 2013 | July 1, 2011 - June 30, 2012 |
| Actuarial Cost Method | Entry Age Normal | Entry Age Normal | Entry Age Normal | Entry Age Normal | Entry Age Normal |
| Asset Valuation Method | Market Value | Market Value | Actuarial Value | Actuarial Value | Actuarial Value |
| Amortization Years Remaining (See Note 1 for Method) | 24 | 16 | 17 | 18 | 18 |
| Discount Rate | 7.75% | 7.75% | 7.75% | 7.75% | 8.16% |
| Price Inflation | 3.00% | 3.00% | 3.75% | 3.75% | 3.75% |
| Salary Increases[2] | 3.00% | 3.00% | 3.75% | 3.75% | 3.75% |
| Cost-of-living adjustments | 2.60% | 2.60% | 2.70% | 2.70% | 2.70% |
| Mortality[3] | See Notes | See Notes | See Notes | See Notes | See Notes |

| | 2011 | 2010 | 2009 | 2008 | 2007 |
|---|---|---|---|---|---|
| Valuation Date(s) | June 30, 2010 | June 30, 2009 | June 30, 2008 | June 30, 2007 | June 30, 2006 |
| Effective Date(s) | July 1, 2010 - June 30, 2011 | July 1, 2009 - June 30, 2010 | July 1, 2008 - June 30, 2009 | July 1, 2007 - June 30, 2008 | July 1, 2006 - June 30, 2007 |
| Actuarial Cost Method | Entry Age Normal | Entry Age Normal | Entry Age Normal | Entry Age Normal | Entry Age Normal |
| Asset Valuation Method | Actuarial Value | Actuarial Value | Actuarial Value | Actuarial Value | Actuarial Value |
| Amortization Years Remaining (See Note 1 for Method) | 18 | 16 | 17 | 18 | 19 |
| Discount Rate | 8.16% | 8.00% | 8.00% | 8.00% | 8.00% |
| Price Inflation | 4.50% | 4.50% | 4.50% | 4.50% | 4.50% |
| Salary Increases[2] | 4.50% | 4.50% | 4.50% | 4.50% | 4.50% |
| Cost-of-living adjustments | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |
| Mortality[3] | See Notes | See Notes | See Notes | See Notes | See Notes |

Notes:
1. Closed Period as a level percentage of payroll method used for all years shown.
2. Includes merit component based on year of service.
3. Sex distinct RP-2000 Combined Mortality used for all years shown.

B. Changes to the Assumptions

An actuarial valuation performed by MCERA's then actuary, Buck Consultants, in 2007 highlighted key assumptions to remain unchanged; the assumed discount rate was 8.0%, inflation rate was 4.5%, and salary increase rate was 5.5%. The next valuation of the fund performed by EFI Actuaries in 2011, based upon the experience of the fund from 2007 to 2010, suggested that a number of these assumptions be changed. The discount rate was lowered to 7.75% and the earnings and inflation rates were changed to 3.75%. In 2014 the asset valuation method was changed to the market value rather than the actuarial value, the price inflation and salary assumptions were lowered to 3.00%, and the cost-of-living assumption was lowered to 2.6%.

# Merced County Employees' Retirement Association
# Other Supplemental Schedules

## Schedule of Administrative Expenses
## For the Years Ended June 30, 2016 and 2015

| **Personnel Services:** | **2016** | **2015** |
|---|---|---|
| Salaries, wages and benefits | $875,652 | $992,566 |
| **Office Expenses:** | | |
| Communications | 2,993 | 3,147 |
| Requested maintenance/ utilities/ cost allocation | 131,584 | 112,083 |
| Office supplies | 20,097 | 9,537 |
| Postage | 19,979 | 20,795 |
| **Total Office Expense** | 174,653 | 145,562 |
| **Professional Services:** | | |
| Audit fees | 78,242 | 73,814 |
| Attorney fees | 62,805 | 43,200 |
| Disability stenographic fees/ investigations | 350 | 350 |
| Publications/ legal notices | 34,281 | 229 |
| Disability medical reviews/ services | 60,096 | 20,813 |
| Merced Dept. of Information Technology/software | 599,371 | 649,528 |
| **Total Professional Services** | 835,145 | 787,934 |
| **Miscellaneous:** | | |
| Memberships | 5,900 | 6,460 |
| Fiduciary meeting | 11,100 | 10,700 |
| Fiduciary and staff travel/ training | 33,808 | 43,490 |
| Insurance | 76,142 | 69,374 |
| Depreciation expense | 404,163 | 141,195 |
| **Total Miscellaneous Expenses** | 531,113 | 121,062 |
| **Total Administrative Expenses** | $2,416,563 | $2,197,281 |

# Merced County Employees' Retirement Association
# Other Supplemental Schedules

### Schedule of Investment Expenses
### For the Years Ended June 30, 2016 and 2015

| INVESTMENT MANAGERS' FEES | 2016 | 2015 |
|---|---|---|
| **Domestic Equities** | | |
| Dimensional Fund Advisors | $67,405 | $65,641 |
| Mellon Capital Management | 233,939 | 238,137 |
| PanAgora Asset Mgt | 152,153 | 149,990 |
| Wentworth, Hauser & Violich | - | 67 |
| Total Domestic Equities | 453,497 | 453,835 |
| **International Equities** | | |
| Mellon Capital Management | 2,800 | - |
| Earnest Partners, LLC | 271,016 | 324,877 |
| Copper Rock International | 215,028 | 263,476 |
| Wells Capital Management | 238,612 | 297,795 |
| Total International Equities | 727,456 | 886,148 |
| **Alternative Investments** | | |
| Invesco Private Capital | 56,762 | 63,077 |
| KKR | 96,730 | - |
| North Haven Infrastructure | (215,063) | 215,063 |
| Total Alternative Investments | (61,571) | 278,140 |
| **Real Estate** | | |
| BlackRock | 9,103 | 9,521 |
| UBS Global-Trumbull Property Mgmt | 439,190 | 397,962 |
| Total Real Estate | 448,293 | 407,483 |
| **Fixed Income** | | |
| AXA Investment Managers | 66,173 | 46,399 |
| Barrow, Hanley, Mewhinney & Strauss | 274,597 | 295,020 |
| Total Fixed Income | 340,770 | 341,419 |
| **Total Investment Managers' Fees** | 1,908,445 | 2,367,025 |
| | | |
| **OTHER INVESTMENT EXPENSES** | | |
| **Global Custodian** | | |
| BNY Mellon Asset Servicing | 228,070 | 270,453 |
| **Investment Counsel** | | |
| Nossaman LLP | 64,366 | - |
| **Investment Consultant** | | |
| SIS, Inc | 173,250 | 165,000 |
| **Miscellaneous Investment Expense** | (12,165) | 204,701 |
| **Total Other Investment Expenses** | 453,521 | 640,154 |
| **Total Management Fees and Other Investment Expenses** | 2,361,966 | 3,007,179 |
| **Securities Lending Activity** | | |
| Management fee | 8,853 | 11,193 |
| Rebate fee | (13,746) | (23,183) |
| **Total Security Lending Activity Fees** | (4,893) | (11,990) |
| **Total Fees and Other Investment Expenses** | $2,357,073 | $2,995,189 |

# Merced County Employees' Retirement Association
## Other Supplemental Schedules
### Schedules of Payment to Consultants
### For the Years Ended June 30, 2016 and 2015

| INVESTMENT PROFESSIONAL SERVICE FEES | 2016 | 2015 |
|---|---|---|
| Custodial services - BNY Mellon Asset Servicing | $228,070 | $270,453 |
| Investment consultant - SIS, Inc, and Others | 173,755 | 165,580 |
| Investment counsel - Nossaman LLP | 64,366 | - |
| Actuarial services - Cheiron Actuaries | 76,121 | 126,165 |
| Total investment professional service fees | $542,312 | $562,198 |

| ADMINISTRATIVE PROFESSIONAL SERVICE FEES | | |
|---|---|---|
| Audit services - Macias Gini & O'Connell, LLP | $78,242 | $73,814 |
| Legal services | 62,805 | 43,200 |
| Disability stenographic fees/investigations | 350 | 350 |
| Other specialized services | 34,281 | 229 |
| Disability medical reviews/services | 60,096 | 20,813 |
| Software and Information Systems | 599,371 | 649,528 |
| Total administrative professional service fees | $835,145 | $787,934 |

# Investment Section


*The photos included in this report are courtesy of the Merced County Historical Society Archives.*

*Commercial Bank at Main Street and Canal in Merced, California, 1908*

Verus

October 13, 2016

Board of Trustees
Merced County Employees' Retirement Association
3199 "M" Street
Merced, CA 95348

Dear Trustees:

Verus Advisory is pleased to provide the Board of Trustees of Merced County Employees' Retirement Association("MCERA") with an overview of the market environment for the fiscal year ended June 30, 2016 as well as an update on performance and a summary of recent developments.

**Investment Landscape**

Fiscal year 2016 ended June 30 was a period marked by volatility throughout the year, despite flat returns for U.S. pension plans for the fiscal year end masking the volatility. The fiscal year was characterized by the outperformance of U.S. financial markets relative to the rest of the world. U.S. equity markets were resilient and managed positive returns, while international developed and emerging markets experienced significant losses. Concerns over slowing global growth and the uncertainty of central bank stimulus contributed to a volatile global equity market. The U.S. fixed income market saw positive returns as yields fell significantly, despite the Fed raising interest rates 25 bps in December. The yield curve also flattened dramatically over the period and long duration strategies enjoyed strong performance. Additional interest rate increases were put on hold as the Fed continued to assess global growth concerns, the health of the labor market, and low inflation expectations.

Meanwhile, the ECB and BOJ continued to pursue aggressive monetary stimulus programs to combat anemic growth and low inflation. Both central banks expanded their asset purchase programs in addition to implementing a negative interest rate policy that charges commercial banks a fee on excess deposits. These monetary stimulus programs helped suppress international sovereign bond yields to all-time lows, including a large portion of bonds that trade at negative yields. The fiscal year ended with the surprise outcome of the United Kingdom voting to leave the European Union. The decision initially jolted global financial markets, but they mostly recovered shortly after.

The U.S. equity market (Russell 3000) returned a modest 2.1% during the fiscal year. Large cap equities (Russell 1000) greatly outperformed small cap equities (Russell 2000) as the benchmarks returned 2.9% and -6.7%, respectively. Style tilts in the large cap space performed similarly. The Russell 1000 Growth returned 3.0% and the Russell 1000 Value returned 2.9%. International equities underperformed in both developed and emerging markets. Developed equities (MSCI EAFE) returned -10.2%, while emerging equities (MSCI EM) returned -12.1%. In the fixed income market, the Barclays Aggregate index returned 6.0.

**Plan Performance**

The MCERA investment portfolio ("the Portfolio") earned a 0.6% percent return gross of fees for the fiscal year ending June 30, 2016. This return trailed the policy index return by 0.2%.

As previously discussed, the largest driver of returns during the fiscal year was depreciation in global public equities. Within domestic equities, most actively managed strategies fared well, beating the policy index by 3.6%. In contrast, International equities lost 10.8%, lagging the benchmark by 1.0%.

The Portfolio's investments in hedge funds portfolio lagged the benchmark at -7.9% for the Fiscal YTD. The real estate allocation returned 9.5% but lagged the benchmark by 1.3%. Private equity added 2.9% beating its benchmark by 20bps.

On a longer term basis, the portfolio has generated 7.0% gross of fees annually for the last three years, outperforming the policy index by 0.4% and ranking in the top quartile of its peer group. The Plan gained 6.4% gross of fees over the 5-year period in line with its peers, but lagging the benchmark by 0.6%.

**Investment Results**

| PERIODS ENDED 6/30/16 | ONE YEAR | THREE YEARS | FIVE YEARS |
|---|---|---|---|
| Domestic Equity (gross) | +4.6% | +12.6% | +11.7% |
| *80% Russell 1000 / 20% Russell 2000 Index* | +1.0% | +10.7% | +11.3% |
| Rank* | 6 | 3 | 17 |
| Non-US Equity (gross) | -10.8% | +1.8% | +1.1% |
| *MSCI ACWI ex-US Index* | -9.8% | +1.6% | +1.1% |
| Rank | 73 | 65 | 63 |
| Fixed Income (gross) | +4.5% | +4.0% | +4.4% |
| *65% Barclays Cap US Aggregate / 22% ML HY Master II/13% CS Lev. Loan* | +4.7% | +3.9% | +3.6% |
| Rank | 68 | 58 | 49 |
| Real Estate (net) | +10.7% | +10.1% | +9.9% |
| *NCREIF ODCE* | +10.8% | +11.9% | +11.8% |
| Rank | 74 | 90 | 85 |
| Hedge Funds (net) | -7.9% | NA | NA |
| | -3.1% | NA | NA |

| | | | |
|---|---|---|---|
| *50% HFRI Funds of Funds Composite/50% HFRI Multi-Strategy*<br>Rank | 86 | NA | NA |
| Private Equity (net) | +2.9% | +9.9% | +6.8% |
| *Russell 3000 + 300 bps* | +2.7% | +14.2% | +17.5% |
| *(1-quarter lagged)* | | | |
| Rank | 60 | 52 | 74 |
| Total Fund (gross) | +0.6% | +7.0% | +6.4% |
| *Policy Benchmark* | +0.4% | +6.6% | +7.0% |
| *Public Fund Median* | +0.4% | +6.5% | +6.5% |
| Rank** | 46 | 24 | 53 |

*** Ranking 1 is best, 100 is worst.**
**** Rankings source – Investor Force Universe**

**Plan Activity**

During the 2016 fiscal year, Verus worked with MCERA to further build out the strategic real estate allocation by introducing international real estate exposure into the portfolio. Verus assisted with two replacement manager searches in international equity which were ongoing as of the end of fiscal 2016. Lastly, we began the Asset/Liability Modeling process with MCERA which will conclude in fiscal 2017.

All of us here at Verus appreciate the opportunity to assist the MCERA Board in meeting the Plan's investment objectives. We are confident in the direction of the portfolio given the System's demographics and fiscal strength. We look forward to continuing our partnership as we navigate ever-changing capital markets.

Sincerely,

John Nicolini
Managing Director

# Merced County Employees' Retirement Association

**Total Fund Returns vs. Universe**
**Periods Ending June 30, 2016**

| | 3 Mo | Fiscal YTD | 2 Yrs | 3 Yrs | 5 Yrs | 7 Yrs | 10 Yrs | Inception Return | Inception Since |
|---|---|---|---|---|---|---|---|---|---|
| **Total Fund** | **1.6%** | **0.6%** | **2.0%** | **7.0%** | **6.4%** | **9.7%** | **5.2%** | **8.0%** | **Jan-94** |
| *Fund Benchmark* | *1.9%* | *0.4%* | *2.0%* | *6.6%* | *7.0%* | *9.9%* | *5.6%* | *5.5%* | *Jan-94* |
| *IF Public DB Gross Rank* | *71* | *46* | *37* | *24* | *53* | *45* | *76* | | *Jan-94* |
| *IF Public DB Gross Median* | *1.9%* | *0.4%* | *1.7%* | *10.5%* | *6.5%* | *9.6%* | *5.6%* | *7.9%* | *Jan-94* |

The above table's figures are based on a market rate of return.

## Outline of Investment Policies and Summary of Proxy Voting Guidelines and Procedures

### Outline of Investment Policies

The Board of Retirement (Board) has exclusive control of all investments of the retirement system and is responsible for establishing investment objectives, strategies and policies.

Pursuant to the California Constitution and the 1937 Act, the Board is authorized to invest in any form or type of investment deemed prudent in the informed judgment of the Board. In making decisions regarding the MCERA investment portfolio, the Board acts in a fiduciary capacity and must discharge its duties in accordance with fiduciary principles. In this regard, investment decisions are to be made in the sole interest and for the exclusive purpose of providing benefits, minimizing employer contributions, and defraying the reasonable expenses of the retirement system.

The Board of Retirement has adopted an Investment Policy, which provides the framework for the management of MCERA's investments. The Investment Policy establishes the investment program goals, asset allocation policies, performance objectives, investment management policies and risk controls. The Investment Policy also defines the principal duties of the Board, MCERA's custodian bank, consultant, and MCERA's investment managers. The Board makes revisions to the Investment Policy as necessary.

Pursuant to the Investment Policy, the basic goal of MCERA's investment program is to obtain a fully funded plan status, while assuming a risk posture consistent with the Board's risk tolerance. In pursuing this goal, the Board has adopted a long-term investment horizon in which the chances and duration of investment losses are carefully weighed against the long-term potential for appreciation of assets. The primary investment objective is to exceed the actuarial assumption for return on assets. The risk assumed in the pursuit of this investment objective must be appropriate for the return anticipated and consistent with the total diversification of the fund.

The asset allocation plan adopted by the Board is an integral part of MCERA's investment program. It is designed to provide an optimum, diversified mix of asset classes with return expectations to satisfy expected liabilities, while minimizing risk exposure.

## Merced County Employees' Retirement Association

**Summary of Proxy Voting Guidelines and Procedures**

Voting of MCERA's proxy voting ballots shall be in accordance with MCERA's proxy voting guidelines as set forth in the Investment Policy. The basic directive of the proxy voting guidelines is that when voting proxy ballots on behalf of MCERA, investment managers shall vote according to the best interests of the MCERA membership. On a quarterly basis, the investment managers are required to provide a report to MCERA detailing their proxy votes.

**Asset Allocation Information**

For the Year Ending June 30, 2016

| | Allocation June 30, 2016 | Target | Allocation Ranges Minimum | Allocation Ranges Maximum | Allocation June 30, 2015 |
|---|---|---|---|---|---|
| US Equity | 30.0% | 28.4% | 24.0% | 33.0% | 31.6% |
| International Equity | 19.8% | 17.5% | 14.0% | 20.0% | 19.3% |
| Emerging Markets Equity | 4.0% | 6.1% | 5.0% | 7.5% | 4.1% |
| Private Equity | 5.6% | 7.0% | 5.0% | 8.0% | 5.7% |
| Real Estate | 8.7% | 8.0% | 7.0% | 9.0% | 8.0% |
| Domestic Fixed Income | 17.5% | 14.5% | 12.0% | 18.0% | 16.9% |
| High Yield Fixed Income | 5.2% | 5.0% | 4.0% | 6.0% | 5.2% |
| Bank Loans | 3.2% | 3.0% | 2.5% | 3.5% | 3.1% |
| Hedge Funds | 4.1% | 4.5% | 4.0% | 5.0% | 4.5% |
| Infrastructure | 0.5% | 3.0% | 2.0% | 4.0% | 0.4% |
| Natural Resources | 0.2% | 3.0% | 2.0% | 4.0% | - |
| Cash | 1.1% | 0.0% | 0.0% | 0.0% | 1.2% |
| | 100.0% | 100.0% | | | 100.0% |

# Merced County Employees' Retirement Association

## INVESTMENT SUMMARY

For the Year Ending June 30, 2016

| | Fair Value | Percent of Total |
|---|---|---|
| **DOMESTIC EQUITY** | | |
| Large Cap Growth | $97,663,403 | 14.5% |
| Mellon Dynamic | 62,347,924 | 9.3% |
| Small Cap | 39,432,005 | 5.9% |
| **Total Domestic Equity** | 199,443,332 | 29.7% |
| **INTERNATIONAL EQUITY** | | |
| Large/Medium Core | 68,732,581 | 10.2% |
| Large/Medium High Alpha | 37,161,827 | 5.5% |
| Small Cap Growth | 24,371,101 | 3.6% |
| Emerging Market | 26,258,204 | 3.9% |
| **Total International Equity** | 156,523,713 | 23.3% |
| **FIXED INCOME** | | |
| Domestic Core | 117,005,749 | 17.4% |
| High Yield | 34,383,646 | 5.1% |
| Bank Loans | 21,088,831 | 3.1% |
| **Total Fixed Income** | 172,478,226 | 25.6% |
| **ALTERNATIVE INVESTMENTS** | | |
| Private Equity | 37,368,032 | 5.6% |
| Hedge Funds | 27,573,646 | 4.1% |
| Infrastructure | 3,592,536 | 0.5% |
| Natural Resources | 1,647,335 | 0.2% |
| **Total Alternative Investments** | 70,181,549 | 10.4% |
| **REAL ESTATE** | | |
| Domestic Property Fund | 50,251,571 | 7.5% |
| Global REIT | 7,847,167 | 1.2% |
| International Property Fund | 17,332 | 0.0% |
| **Total Real Estate** | 58,116,070 | 8.6% |
| **CASH AND SHORT-TERM INVESTMENTS** | 15,801,912 | 2.3% |
| **Total Investments, Cash and Short-Term Investments** | $672,544,802 | 100.0% |

# Merced County Employees' Retirement Association

## Schedule of Investment Results

For the Year Ended June 30, 2016

| | CURRENT | ANNUALIZED | | | | |
|---|---|---|---|---|---|---|
| **DOMESTIC EQUITY** | **YEAR** | **3 YR** | **5 YR** | **7 YR** | **10 YR** | **Inception** |
| Large Cap Core | | | | | | |
| Mellon Dynamic | 10.3% | 16.0% | - | - | - | 18.7% |
| Large Cap Index | | | | | | |
| Mellon Capital Large Cap | * | - | - | - | - | 2.6% |
| Small Cap | | | | | | |
| DFA | -3.1% | - | - | - | - | 1.9% |
| PanAgora | -4.5% | - | - | - | - | 7.0% |
| **Total Domestic Equity** | **4.6%** | **12.6%** | **11.7%** | **15.3%** | **7.7%** | **9.5%** |
| **Index: 86% Russell 1000®/14% Russell 2000®** | **1.0%** | **10.7%** | **11.3%** | **14.8%** | **7.3%** | **9.4%** |
| **INTERNATIONAL EQUITY** | | | | | | |
| Copper Rock | -8.8% | - | - | - | - | 4.9% |
| GMO | -13.1% | 1.5% | 1.8% | 6.4% | - | -0.2% |
| Mellon Capital International | * | - | - | - | - | -1.2% |
| Earnest Partners, LLC | -12.1% | 0.8% | 0.3% | 7.2% | - | 2.2% |
| Wells Capital Emerging Markets Fund | -11.7% | 0.0% | - | - | - | -0.8% |
| **Total International Equity** | **-10.8%** | **1.8%** | **1.1%** | **6.9%** | **2.8%** | **4.7%** |
| **Index: International Custom Index** | **-9.8%** | **1.6%** | **1.1%** | **5.6%** | **1.5%** | **3.4%** |
| **FIXED INCOME** | | | | | | |
| AXA | -1.1% | 3.5% | 6.1% | - | - | 7.4% |
| Barrow Hanley | 6.5% | 4.3% | 4.2% | - | - | 4.6% |
| Guggenheim Loan | 2.7 | - | - | - | - | 2.7% |
| **Total Fixed Income** | **4.5%** | **4.0%** | **4.4%** | **5.7%** | **4.4%** | **5.8%** |
| **Index: US Fixed Income Custom Index** | **4.7%** | **3.9%** | **3.6%** | **4.5%** | **5.0%** | **6.0%** |
| **REAL ESTATE** | | | | | | |
| UBS Trumbull Property Fund | 10.7% | 11.3% | 10.9% | 10.0% | 6.6% | 9.0% |
| BlackRock RE | 1.2% | - | - | - | - | -1.3% |
| Greenfield Partners | 21.9% | - | - | - | - | 16.8% |
| Patron V | * | - | - | - | - | 0.0% |
| **Total Real Estate** | **10.7%** | **10.1%** | **9.9%** | **10.3%** | **6.4%** | **8.9%** |
| **Index: Real Estate Custom Index** | **10.8%** | **11.9%** | **11.8%** | **10.2%** | **7.4%** | **9.0%** |
| **ALTERNATIVE INVESTMENTS** | | | | | | |
| Invesco Private Capital IV | -0.2% | 14.7% | 7.3% | 10.9% | 9.9% | 8.7% |
| Invesco Private Capital VI | 6.7% | 10.9% | - | - | - | 10.9% |
| Adams Street Partners, LLC | 7.0% | 12.6% | 11.3% | 11.9% | 7.2% | 5.3% |
| Pantheon Ventures I, Inc. | -0.9% | 6.7% | 5.5% | 7.0% | 4.4% | 2.6% |
| Pantheon Ventures II, Inc. | 11.8% | 13.2% | - | - | - | 9.9% |
| Pantheon Secondary | -2.7% | 2.0% | 0.5% | 1.5% | - | 3.0% |
| Raven Capital | 0.1% | - | - | - | - | -3.6% |
| Ocean Avenue | 2.3% | - | - | - | - | -1.6% |
| **Total Alternative Investments**** | **2.9%** | **9.9%** | **6.8%** | **8.7%** | **7.9%** | **7.0%** |
| **Index: Russell 3000® + 3.00%** | **2.7%** | **14.2%** | **17.5%** | **20.4%** | **12.7%** | **12.8%** |
| **HEDGE FUNDS** | | | | | | |
| Oz Domestic II | -5.8% | - | - | - | - | 1.1% |
| Titan | -10.1% | - | - | - | - | -2.7% |
| **Total Hedge Funds** | **-7.9%** | **-** | **-** | **-** | **-** | **-0.8%** |
| **Index: Hedge Fund Custom Index** | **-3.1%** | **-** | **-** | **-** | **-** | **0.4%** |
| **INFRASTRUCTURE** | | | | | | |
| KKR Global II | 6.8% | - | - | - | - | 9.7% |
| North Haven Infrastructure II | -4.1% | - | - | - | - | -3.8% |
| **Total Infrastructure** | **-6.0** | **-** | **-** | **-** | **-** | **0.8%** |
| **Index: CPI-U Headline +5%** | **6.0** | **-** | **-** | **-** | **-** | **5.5%** |
| **NATURAL RESOURCES** | | | | | | |
| GSO Energy | * | - | - | - | - | 8.6% |
| Taurus Mining | * | - | - | - | - | 22.3% |
| **Total Natural Resources** | * | **-** | **-** | **-** | **-** | **-** |
| **Index: CPI-U Headline+5%** | * | **-** | **-** | **-** | **-** | **-** |
| **TOTAL FUND***** | **0.6%** | **7.0%** | **6.4%** | **9.7%** | **5.2%** | **8.0%** |
| **TOTAL FUND CUSTOM INDEX***** | **0.4%** | **6.6%** | **7.0%** | **9.9%** | **5.6%** | **5.5%** |
| *There is no fiscal year data available; the fund doesn't have a full year. **Performance results lag by a quarter due to financial reporting constraints. | | | | | | |
| ***Using time-weighted rate of return based on market rate return. | | | | | | |

# Merced County Employees' Retirement Association

## Top 10 Largest Holdings by Fair Value

June 30, 2016

| PAR | BONDS | | FAIR VALUE |
|---|---|---|---|
| 5,975,000 | U S TREASURY BOND | 3.125% 11/15/2041 DD 11/15/11 | $7,055,878 |
| 5,100,000 | U S TREASURY NOTE | 2.375% 08/15/2024 DD 08/15/14 | 5,489,691 |
| 4,655,000 | U S TREASURY NOTE | 2.000% 02/15/2022 DD 02/15/12 | 4,875,740 |
| 3,735,000 | U S TREASURY NOTE | 2.000% 11/15/2021 DD 11/15/11 | 3,915,176 |
| 2,065,000 | U S TREASURY NOTE | 0.750% 02/28/2018 DD 02/28/13 | 2,070,637 |
| 2,005,194 | FNMA POOL #0AS4583 | 4.000% 03/01/2045 DD 02/01/15 | 2,163,965 |
| 1,515,818 | GNMA II POOL #0AL9364 | 3.500% 03/20/2045 DD 03/01/15 | 1,619,484 |
| 1,468,936 | FNMA POOL #0AS5469 | 4.000% 07/01/2045 DD 06/01/15 | 1,585,613 |
| 1,403,969 | FNMA POOL #0BC2940 | 3.000% 04/01/2046 DD 03/01/16 | 1,458,317 |
| 1,301,494 | GNMA II POOL #0MA3106 | 4.000% 09/20/2045 DD 09/01/15 | 1,391,778 |
| | | | $31,626,279 |

| SHARES | STOCKS | FAIR VALUE |
|---|---|---|
| 1,730 | ARM HOLDINGS PLC | $1,645,778 |
| 36,163 | ICON PLC | 1,377,027 |
| 19,669 | SHIRE PLC | 1,343,557 |
| 21,656 | AMADEUS IT GROUP SA | 1,186,937 |
| 27,203 | CORE LABORATORIES NV | 1,155,770 |
| 9,329 | ROCHE HOLDING AG | 1,084,390 |
| 4,125 | SECOM CO LTD | 1,016,000 |
| 13,800 | NOVARTIS AG | 1,007,942 |
| 12,216 | CARNIVAL CORP | 992,599 |
| 22,457 | DENSO CORP | 969,301 |
| | | $11,779,301 |

A complete list of portfolio holding is available upon request.

# Merced County Employees’ Retirement Association

## Schedule of Investment Management Fees and List of Investment Service Providers

| INVESTMENT MANAGERS' FEES | 2016 | 2015 |
|---|---|---|
| Equity Managers | | |
| Domestic | $453,497 | $453,835 |
| International | 727,456 | 886,148 |
| Fixed Income Fees | 340,770 | 341,419 |
| Alternative Investment Managers | (61,570) | 278,140 |
| Real Estate Fees | 448,293 | 407,483 |
| Total Investment Managers' Fees | $1,908,446 | $2,367,025 |
| | | |
| **OTHER INVESTMENT SERVICE FEES** | | |
| Investment Consultant Fees | $173,250 | $165,000 |
| Investment Custodial Fees | 228,070 | 270,453 |
| Investment Counsel Fees | 64,366 | - |
| Other Investment Service Fees | (17,059) | 192,711 |
| Total Other Investment Service Fees | 448,627 | 628,165 |
| **Total Investment Managers' and Other Service Fees** | $2,357,073 | $2,995,189 |

**Fixed Income/Bank Loan**
Barrow, Hanley, Mewhinney & Strauss, Inc.
AXA Investment Managers
Guggenheim

**Real Estate**
UBS Global Asset Management
Greenfield Partners
BlackRock, Inc.
Patron Capital

**Domestic Equity**
Mellon Capital Management
Dimensional Fund Advisors
PanAgora Asset Management, Inc.

**Infrastructure**
KKR & Co. L.P.
Morgan Stanley

**International Equity**
Grantham, Mayo, Van Otterloo & Co. LLC
Earnest Partners, LLC
Mellon Capital Management
Wells Capital Management
Copper Rock Capital Partners, LLC

**Private Equity**
Adams Street Partners, LLC
Pantheon Ventures, Inc.
Invesco Private Capital
Ocean Avenue Capital Partners
Raven Capital Management

**Hedge Fund**
Titan Advisors, LLC
Och-Ziff Capital Management

**Commission Recapture Brokers**
ConvergEx Group
Capital Institutional Services, Inc.

# Actuarial Section


The photos included in this report are courtesy of the Merced County Historical Society Archives.

Hotel Ciquatan, Planada, California, approx. 1912

*Via Electronic Mail*

December 13, 2016

## Actuarial Certification

This is the Actuary's Certification Letter for the Actuarial Section of the Comprehensive Annual Financial Report (CAFR) for the Merced County Employees' Retirement Association (the Plan) as of June 30, 2016. This letter includes references to two documents produced by Cheiron for the Plan: the Actuarial Valuation Report as of June 30, 2015 (transmitted January 5, 2016) and the GASB 67/68 Report as of June 30, 2016 (transmitted December 8, 2016).

## Actuarial Valuation Report as of June 30, 2015

The purpose of the annual Actuarial Valuation Report as of June 30, 2015 is to determine the actuarial funding status of the Plan on that date and to calculate recommended contribution rates for the participating employers and Plan members for the Fiscal Year 2016-2017. The prior review was conducted as of June 30, 2014, and included recommended contribution rates for the Fiscal Year 2015-2016.

The funding objective of the Plan is to accumulate sufficient assets over each Member's working life to provide for Plan benefits after termination of employment or retirement. The Board of Retirement is responsible for establishing and maintaining the funding policy of the Plan.

Actuarial funding is based on the Entry Age Normal Cost Method. Under this method, the employer contribution rate provides for current cost (normal cost and expected administrative expenses) plus a level percentage of payroll to amortize the unfunded actuarial liability (UAL). As of the valuation date (June 30, 2015), the amortization period for the June 30, 2013 UAL is 14 years. For the June 30, 2014 valuation, the Board of Retirement adopted a new funding policy for any subsequent unexpected change in the UAL after June 30, 2013. Any new sources of UAL due to actuarial gains and losses or method changes are amortized over a closed 24-year period, with a five-year ramp up period at the beginning of the period, a four-year ramp down at the end of the period, and 15 years of level payments as a percentage of payroll between the ramping periods. Assumption changes will be amortized over a closed 22-year period, with a three-year ramp up period, two-year ramp down period, and 17 years of level payments as a percentage of payroll. The Board also adopted a policy to replace the smoothed actuarial value of assets with the market value of assets for valuation purposes. These new amortization and funding policies in conjunction are a type of policy known as direct rate smoothing.

We prepared the following schedules, which we understand will be included in the Actuarial Section of the CAFR, based on the June 30, 2015 actuarial valuation. All historical information prior to the June 30, 2013 actuarial valuation shown in these schedules is based on information reported by EFI Actuaries, which was acquired by Cheiron in January 2013.

- Statement of Current Actuarial Assumptions and Methods
- Schedule of Active Member Valuation Data
- Schedule of Retirees and Beneficiaries Added to and Removed from Rolls
- Development of 2015 Experience Gain/(Loss) (Analysis of Financial Experience)
- Solvency Test
- Summary of Plan Provisions

We reviewed the actuarial assumptions shown in the schedules and found them to be reasonably appropriate for use under the Plan. The assumptions used in this report reflect the results of an Experience Study performed by Cheiron covering the period from July 1, 2010 through June 30, 2013, and approved by the Board. The assumptions used in the most recent valuation are intended to produce results that, in the aggregate, reasonably approximate the anticipated future experience of the Plan. The next experience analysis will cover the years through 2016.

We certify that the valuation was performed in accordance with generally accepted actuarial principles and practices. In particular, the assumptions and methods used for funding purposes meet the requirements of the Actuarial Standards of Practice, in particular Standards No. 4, 27, 35, and 44.

## GASB 67/68 Report as of June 30, 2016

The purpose of the GASB 67/68 Report as of June 30, 2016, is to provide accounting and financial reporting information under GASB 67 for the Plan and under GASB 68 for the County of Merced and the other participating employers. This report is not appropriate for other purposes, including the measurement of funding requirements for the Plan.

For financial reporting purposes, the Total Pension Liability is based on the June 30, 2015, actuarial valuation updated to the measurement date of June 30, 2016. The beginning of year Total Pension Liability was based on the actuarial valuation as of June 30, 2014, updated to June 30, 2015. The Total Pension Liability measurements as of June 30, 2016 and June 30, 2015 presented in the GASB 67/68 Report were based upon the same data, plan provisions, actuarial methods, and assumptions as were used in the Actuarial Valuation Reports as of June 30, 2015 and June 30, 2014, respectively.

Please refer to our GASB 67 report as of June 30, 2016, for additional information related to the financial reporting of the System. We prepared the following schedules for inclusion in the Financial Section of the CAFR based on the June 30, 2016, GASB 67/68 report:

- Change in Net Pension Liability
- Sensitivity of Net Pension Liability to Changes in Discount Rate
- Schedule of Changes in Net Pension Liability and Related Ratios
- Schedule of Employer Contributions
- Notes to the Schedule of Employer Contributions

We certify that the report was performed in accordance with generally accepted actuarial principles and practices. In particular, the assumptions and methods used for disclosure purposes have been prepared in accordance with our understanding of generally accepted accounting principles as promulgated by the GASB.

## Disclaimers

In preparing our reports, we relied on information (some oral and some written) supplied by the Merced County Employees' Retirement Association. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

Future actuarial measurements may differ significantly from the current measurements due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and, changes in plan provisions or applicable law.

These reports are for the use of the Plan and their auditor in preparing financial reports in accordance with applicable law and accounting requirements. Any other user of these reports is not an intended user and is considered a third party.

Cheiron's reports were prepared solely for the Plan for the purposes described herein, except that the Plan auditor may rely on these reports solely for the purpose of completing an audit related to the matters herein. They are not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein. These reports do not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

Respectfully Submitted,
Cheiron

Graham A. Schmidt, ASA, EA, FCA, MAAA
Consulting Actuary
703-893-1456 x1137
gschmidt@cheiron.us

David Holland, FSA, EA, FCA MAAA
Consulting Actuary
703-893-1456 x1008
dholland@cheiron.us

# Merced County Employees' Retirement Association

## Summary of Assumptions and Funding Methods

**A. <u>Economic Assumptions</u>**

The following economic assumptions and non-economic assumptions were recommended by the actuary and adopted by the Board of Retirement as of the most recent actuarial valuation (dated June 30, 2015):

| | |
|---|---|
| Investment Rate of Return | 7.75%, net investment and administrative expenses |
| Inflation | 3.00% per annum |
| Cost of Living Adjustments | For Tier 1, 100% of CPI to 3% annually with banking, assumed to be 2.6% annually |
| Asset Valuation Method | Market value of assets |
| Interest Credited to Active Member's Reserves | Pursuant to MCERA Interest Crediting Policy, adopted March 13, 2003, interest will fall within a range from 0-2% below the valuation interest rate |
| Projected Annual Salary Increases | 3.00%, Plus service-based rates |

**B. <u>Non-Economic Assumptions</u>**

The date of the last study of the Plan's actual experience was June 30, 2013. The actuary compared the expected number of terminations from active service to the number actually experienced during a 3-year period and based on this comparison and the trends observed; the probabilities of separation were adjusted.

**Mortality Tables Used**

***1. For Healthy Lives***

| | |
|---|---|
| General Member Males | Combined Healthy Retired Pensioners (RP) 2000 Projected to 2027 using scale BB |
| General Member Females | Combined Healthy Retired Pensioners (RP) 2000 Projected to 2027 using scale BB |
| Safety Members | Combined Healthy Retired Pensioners (RP) 2000 Projected to 2027 using scale BB |

***2. For Disabled Lives***

| | |
|---|---|
| General Member Males | Combined Healthy Retired Pensioners (RP) 2000 Projected to 2027 using scale BB (3 year set-forward) |
| General Member Females | Combined Healthy Retired Pensioners (RP) 2000 Projected to 2027 using scale BB (3 year set-forward) |
| Safety Members | Combined Healthy Retired Pensioners (RP) 2000 Projected to 2027 using scale BB (3 year set-forward) |

***3. For Employee Contributions Rate Purposes***

| | |
|---|---|
| General Member | Combined Healthy Retired Pensioners (RP) 2000 Projected to 2027 using scale BB, blended 1/3 male and 2/3 female |
| Safety Members | Combined Healthy Retired Pensioners (RP) 2000 Projected to 2027 using scale BB, blended 3/4 male and 1/4 female |

| | |
|---|---|
| **Active Member Mortality** | Based upon the Experience Analysis as of 6/30/2013 (see Schedule of Probabilities of Separation from Active Service) |
| **Withdrawal Rates** | Based upon the Experience Analysis as of 6/30/2013 (see Schedule of Probabilities of Separation from Active Service) |
| **Disability Rates** | Based upon the Experience Analysis as of 6/30/2013 (see Schedule of Probabilities of Separation from Active Service) |
| **Service Retirement Rates** | Based upon the Experience Analysis as of 6/30/2013 (see Schedule of Probabilities of Separation from Active Service) |
| **Vested Termination** | Rates of vested termination apply to active members who terminate their employment after five years of service and leave their contribution with the plan. Vested terminated General Members are assumed to begin receiving benefits at 59; terminated Safety Members are assumed to begin receiving benefits at age 53. Assumed rates of reciprocity at termination depend on participant type and years of service, and are based on the Experience Analysis as of 6/30/2013. |
| **Family Composition** | 50% of female General Members, 80% of male General Members, and 90% of Safety Members are assumed to be married at retirement. Male spouses are assumed to be three years older than their wives. |
| **Final Average Compensation Load** | The final average compensation (FAC) for members projected to receive a service retirement benefit has been increased based on the assumption that members will have elements of pay included in their FAC which are not included in the annual pay provided to the Actuary (Ventura decision pays). The FAC for Tier 1 members has been increased by 6.92% and the FAC for Tier 2 and Tier 3 members by 2.31%. |

## C. Funding Method

The Entry Age Normal actuarial funding method was used for active employees, whereby the normal cost is computed as the level annual percentage of pay required to fund the retirement benefits between each Member's date of hire and assumed retirement. The actuarial liability is the difference between the present value of future benefits and the present value of future normal cost. The unfunded actuarial liability is the difference between the actuarial liability and the actuarial value of assets.

The unfunded actuarial liability is amortized by annual payments. The payments are determined so that they will be a level percentage of pay, assuming payroll increases of 3% per year. The UAL as of June 30, 2014 is being amortized over a closed period of 15 years. Effective with the June 30, 2015 valuation, any new sources of UAL due to actuarial gains and losses or method changes is amortized over a closed 24-year period, with a 5-year ramp up period at the beginning of the period, a 4-year ramp down at the end of the period, and 15 years of level payments as a percentage of payroll. Assumption changes will be amortized over a closed 22-year period,

Note: information compiled from Actuarial report prepared by Cheiron dated June 30, 2015 with a 3-year ramp up period, 2-year ramp down period, and 17 years of level payments as a percentage of payroll.

### D. Plan Description

A summary of plan provisions can be found in Note 1 of the **NOTES TO BASIC FINANCIAL STATEMENTS.**

# Merced County Employees' Retirement Association
# Probabilities of Separation from Active Service

## GENERAL MEMBERS

| Service Retirement – Male (by Service) | | | |
|---|---|---|---|
| Age | 10-19 Yrs | 20-29 Yrs | 30+ Yrs |
| 50 | 2.50% | 5.00% | 7.50% |
| 55 | 9.00% | 18.00% | 27.00% |
| 60 | 25.00% | 25.00% | 37.50% |
| 65 | 40.00% | 40.00% | 40.00% |
| 70 | 100.00% | 100.00% | 100.00% |

| Service Retirement – Female (by Service) | | | |
|---|---|---|---|
| Age | 10-19 Yrs | 20-29 Yrs | 30+ Yrs |
| 50 | 2.50% | 10.00% | 10.00% |
| 55 | 9.00% | 35.00% | 35.00% |
| 60 | 25.00% | 30.00% | 35.00% |
| 65 | 40.00% | 50.00% | 50.00% |
| 70 | 100.00% | 100.00% | 100.00% |

| Service | Withdrawals | Transfers | Vested Terminations |
|---|---|---|---|
| 0-4 | 90.0% | 10.0% | 0.0% |
| 5-14 | 40.0% | 12.0% | 48.0% |
| 15+ | 10.0% | 10.0% | 80.0% |

| | Service-Connected Disability | | Non-Service Connected Disability | |
|---|---|---|---|---|
| Age | Female | Male | Female | Male |
| 20 | 0.0040% | 0.0027% | 0.0000% | 0.0000% |
| 30 | 0.0115% | 0.0133% | 0.0067% | 0.0533% |
| 40 | 0.0190% | 0.0320% | 0.0133% | 0.0867% |
| 50 | 0.0600% | 0.0640% | 0.0600% | 0.1600% |
| 60 | 0.1575% | 0.1120% | 0.1533% | 0.2800% |
| 65 | 0.0000% | 0.0000% | 0.0000% | 0.0000% |

## SAFETY MEMBERS

| | Service Retirement (by Service) | |
|---|---|---|
| Age | 10-19 Yrs | 20+ Yrs |
| 40-44 | 0.00% | 3.10% |
| 45-49 | 0.00% | 7.60% |
| 50-59 | 12.75% | 32.90% |
| 60+ | 100.00% | 100.00% |

| Age | Active Member Mortality |
|---|---|
| 20 | 0.0300% |
| 30 | 0.0600% |
| 40 | 0.1700% |
| 50 | 0.2700% |
| 60 | 0.0000% |

| Age | Service Connected Disability (All) | Non-Service Connected Disability (All) |
|---|---|---|
| 20 | 0.0000% | 0.0000% |
| 30 | 0.4190% | 0.0300% |
| 40 | 0.6375% | 0.0600% |
| 50 | 0.9940% | 0.1200% |
| 60 | 0.0000% | 0.0000% |
| 65 | 0.0000% | 0.0000% |
| | | |

| Service | Withdrawals | Transfers | Vested Terminations |
|---|---|---|---|
| 0-4 | 90.0% | 10.0% | 0.0% |
| 5+ | 15.0% | 42.5% | 42.5% |

## RATES OF TERMINATION

| Years of Service | General Male | General Female | Safety |
|---|---|---|---|
| 0 | 25.0% | 12.0% | 20.8% |
| 5 | 4.8% | 7.5% | 4.6% |
| 10 | 4.8% | 3.6% | 4.6% |
| 15 | 4.8% | 3.0% | 2.5% |

| Years of Service | General Male | General Female | Safety |
|---|---|---|---|
| 20 | 2.5% | 3.0% | 0.0% |
| 25 | 2.5% | 3.0% | 0.0% |
| 30 | 0.0% | 0.0% | 0.0% |
| | | | |

## Merced County Employees' Retirement Association
## Schedule of Active Member Valuation Data

| Valuation Date | Plan Type | Number | Annual Salary | Average Annual Salary | % Increase in Average Annual Salary |
|---|---|---|---|---|---|
| 7/1/2006 | General | 1,919 | $85,864,000 | $44,744 | 1.79% |
| | Safety | 310 | $15,274,000 | $49,271 | 1.35% |
| | **Total** | 2,229 | $101,138,000 | $45,374 | 1.77% |
| 7/1/2007 | General | 1,917 | $85,308,000 | $44,501 | -0.54% |
| | Safety | 318 | $15,281,000 | $48,053 | -2.47% |
| | **Total** | 2,235 | $100,589,000 | $45,006 | -0.81% |
| | General | 1,921 | $92,116,000 | $47,952 | 7.75% |
| 7/1/2008 | Safety | 339 | $17,137,000 | $50,552 | 7.41% |
| | **Total** | 2,260 | $109,253,000 | $48,342 | 5.20% |
| | General | 1,848 | $99,266,589 | $53,716 | 12.02% |
| 7/1/2009 | Safety | 342 | $19,363,697 | $56,619 | 12.00% |
| | **Total** | 2,190 | $118,630,286 | $54,169 | 12.05% |
| | General | 1,708 | $94,915,436 | $55,571 | 3.45% |
| 7/1/2010 | Safety | 330 | $19,692,515 | $59,674 | 5.40% |
| | **Total** | 2,038 | $114,607,951 | $56,236 | 3.81% |
| 7/1/2011 | General | 1,659 | $94,976,978 | $57,250 | 3.02% |
| | Safety | 321 | $19,768,859 | $61,585 | 3.20% |
| | **Total** | 1,980 | $114,745,837 | $57,952 | 3.05% |
| 7/1/2012 | General | 1,596 | $90,706,280 | $56,834 | -0.73% |
| | Safety | 305 | $19,145,091 | $62,771 | 1.93% |
| | **Total** | 1,901 | $109,851,371 | $57,786 | -0.29% |
| 7/1/2013 | General | 1,604 | $91,737,348 | $57,193 | 0.63% |
| | Safety | 295 | $18,699,145 | $63,387 | 0.98% |
| | **Total** | 1,899 | $110,436,493 | $58,155 | 0.64% |
| | General | 1,624 | $91,704,083 | $56,468 | -1.27% |
| 7/1/2014 | Safety | 300 | $18,620,870 | $62,070 | -2.08% |
| | **Total** | 1,924 | $110,324,953 | $57,341 | -1.40% |
| | General | 1,664 | $93,938,857 | $56,454 | -0.03% |
| 7/1/2015 | Safety | 298 | $18,397,233 | $61,736 | -0.54% |
| | **Total** | 1,962 | $112,336,090 | $57,256 | -0.15% |

Note: The data differs from the membership data in the notes to the financial statements due to timing differences and actuary cleansing of the data.

## Merced County Employees' Retirement Association

### Retirements and Beneficiaries Added to and Removed from Retiree Payroll

**For Years Ended June 30**

(Dollar Amounts in Thousands)

| Year | Beginning of Year | Added During Year | Allowances Added ($000) | Removed During Year | Allowances Removed ($000) | End of Year | Retiree Payroll ($000) | % Increase In Retiree Payroll | Average Annual Allowances |
|---|---|---|---|---|---|---|---|---|---|
| 2006 | 1,477 | 98 | $2,007 | 53 | $785 | 1,521 | $27,297 | 9.77% | $17,934 |
| 2007 | 1,521 | 136 | $4,419 | 38 | $560 | 1,620 | $31,823 | 16.58% | $19,644 |
| 2008 | 1,620 | 105 | $2,757 | 67 | $902 | 1,658 | $34,603 | 8.74% | $20,870 |
| 2009 | 1,658 | 105 | $3,403 | 52 | $813 | 1,711 | $37,748 | 9.09% | $22,062 |
| 2010 | 1,711 | 171 | $6,098 | 56 | $981 | 1,826 | $43,653 | 15.65% | $23,907 |
| 2011 | 1,826 | 103 | $2,627 | 44 | $781 | 1,885 | $46,177 | 5.78% | $24,465 |
| 2012 | 1,885 | 175 | $6,485 | 64 | $960 | 1,996 | $52,888 | 14.53% | $26,497 |
| 2013 | 1,996 | 103 | $3,029 | 49 | $856 | 2,050 | $56,048 | 5.98% | $27,340 |
| 2014 | 2,050 | 116 | $3,950 | 31 | $591 | 2,135 | $60,297 | 7.58% | $28,242 |
| 2015 | 2,135 | 100 | $2,509 | 35 | $720 | 2,200 | $63,254 | 4.90% | $28,752 |

### Solvency Test

**For Years Ended June 30**

(Dollar Amounts in Thousands)

| | Actuarial Accrued Liabilities (AAL) For | | | | | Portion of Accrued Liabilities Covered by Reported Assets | | |
|---|---|---|---|---|---|---|---|---|
| Valuation Date | 1 Active Member Contributions | 2 Retirees and Beneficiaries | 3 Active Members Employer Portion | Actuarial Accrued Liabilities | Valuation Assets | 1 | 2 | 3 |
| 2006 | $54,826 | $305,589 | $263,918 | $624,333 | $443,999 | 100% | 100% | 32% |
| 2007 | $59,299 | $358,644 | $234,539 | $652,482 | $480,517 | 100% | 100% | 28% |
| 2008 | $66,865 | $370,764 | $254,623 | $692,252 | $488,347 | 100% | 100% | 20% |
| 2009 | $65,126 | $448,231 | $296,324 | $809,681 | $483,145 | 100% | 93% | 0% |
| 2010 | $64,917 | $532,695 | $333,220 | $930,832 | $509,561 | 100% | 83% | 0% |
| 2011 | $65,723 | $558,483 | $309,711 | $933,917 | $523,980 | 100% | 82% | 0% |
| 2012 | $66,407 | $632,319 | $276,882 | $975,608 | $528,728 | 100% | 73% | 0% |
| 2013 | $73,311 | $694,137 | $297,850 | $1,065,298 | $547,264 | 100% | 68% | 0% |
| 2014 | $75,582 | $739,428 | $281,231 | $1,096,241 | $657,325 | 100% | 79% | 0% |
| 2015 | $78,078 | $765,738 | $287,365 | $1,096,241 | $672,319 | 100% | 78% | 0% |

# Merced County Employees' Retirement Association

**Actuarial Analysis of Financial Experience**

**For Years Ended June 30**

(Dollar Amounts in Thousands)

| Actuarial (Gains)/Losses | | | | Changes in Plan Provisions | Changes in Assumptions/ Methods | Total (Gains)/Loss |
|---|---|---|---|---|---|---|
| Plan Year Ending | Asset Sources | Liability Sources | Total | | | |
| 2006 | $13,444 | $(2,866) | $10,578 | $2,734 | N/A | $13,312 |
| 2007 | $(3,586) | $(3,693) | $(7,279) | N/A | $625 | $(6,655) |
| 2008 | $48,840 | $(14,186) | $34,654 | N/A | N/A | $34,654 |
| 2009 | $66,987 | $23,892 | $90,879 | N/A | N/A | $90,879 |
| 2010 | $16,151 | $8,100 | $24,251 | N/A | $63,410 | $87,661 |
| 2011 | $30,955 | $(13,824) | $17,131 | N/A | $(12,918) | $4,213 |
| 2012 | $40,054 | $11,401 | $51,455 | N/A | $(16,069) | $35,386 |
| 2013 | $20,749 | $4,199 | $24,948 | N/A | $49,294 | $74,242 |
| 2014 | $(22,058) | $(12,533) | $(34,591) | N/A | $(36,803) | $(71,394) |
| 2015 | $31,459 | $(5,096) | $26,363 | N/A | $7,636 | $33,999 |

**Schedule of Funding Progress**

**For Years Ended June 30**

(Dollar Amounts in Thousands)

| Actuarial Valuation Date | Valuation Assets | Actuarial Accrued Liability (AAL) | Unfunded AAL (UAAL) | Funded Ratio | Covered Payroll | UAAL as a % of Covered Payroll |
|---|---|---|---|---|---|---|
| 2006 | $439,999 | $624,333 | $184,334 | 70.5% | $101,137 | 182.3% |
| 2007 | $480,517 | $652,482 | $171,965 | 73.6% | $100,589 | 171.0% |
| 2008 | $488,347 | $692,252 | $203,905 | 70.5% | $109,253 | 186.6% |
| 2009 | $483,145 | $809,681 | $326,536 | 59.7% | $114,984 | 284.0% |
| 2010 | $509,561 | $930,832 | $421,271 | 54.7% | $115,384 | 365.1% |
| 2011 | $523,980 | $933,917 | $409,936 | 56.1% | $111,342 | 368.2% |
| 2012 | $528,728 | $975,608 | $446,880 | 54.2% | $106,581 | 419.3% |
| 2013 | $547,264 | $1,065,298 | $518,034 | 51.4% | $115,983 | 446.6% |
| 2014 | $657,325* | $1,096,241 | $438,916 | 60.0% | $115,939 | 378.6% |
| 2015 | $672,319* | $1,131,181 | $458,862 | 59.4% | $117,822 | 389.5% |

*Reflects change in asset valuation methodology from valuation value of assets to market value of assets effective for the 2014 actuarial valuation.

## Required Supplementary Information

A schedule of actuarially determined and actual contributions can be found on page 56 of this document. The schedule shows whether the employer has made contributions that are consistent with an actuarial method of funding the benefits to be provided consistent with the parameters established by GASB statement 67.

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# *Statistical Section*


*The photos included in this report are courtesy of the Merced County Historical Society Archives.*

*Last mail and passenger train in Los Banos, California, 1965*

## Merced County Employees' Retirement Association

The Statistical Section presents information pertaining to MCERA's operations on a multi-year basis. The financial and operating information provides contextual data for MCERA's fiduciary net position, benefits, refunds, and different types of retirement benefits.

### Additions by Source

| Fiscal Year Ending | Employee Contributions | Employer Contributions | Employer % of Covered Payroll | Net Investment Income and Other Income | Total |
|---|---|---|---|---|---|
| 6/30/2007 | $ 8,755,297 | $ 23,232,099 | 21.33% | $ 73,614,145 | $ 105,601,541 |
| 6/30/2008 | $ 9,357,702 | $ 23,751,437 | 21.34% | $ (33,797,400) | $ (688,261) |
| 6/30/2009 | $ 9,916,305 | $ 27,882,650 | 23.42% | $ (105,689,276) | $ (67,890,321) |
| 6/30/2010 | $ 9,864,161 | $ 29,136,704 | 24.46% | $ 48,772,246 | $ 87,773,111 |
| 6/30/2011 | $ 9,754,849 | $ 36,662,121 | 31.26% | $ 96,031,519 | $ 142,448,490 |
| 6/30/2012 | $ 10,416,301 | $ 40,262,881 | 36.09% | $ (7,039,276) | $ 43,639,906 |
| 6/30/2013 | $ 9,927,749 | $ 43,783,663 | 40.03% | $ 61,083,399 | $ 114,794,811 |
| 6/30/2014 | $ 9,642,819 | $ 48,032,338 | 43.40% | $ 96,219,056 | $ 153,894,213 |
| 6/30/2015 | $ 8,945,316 | $ 52,005,656 | 47.22% | $ 19,318,849 | $ 80,269,821 |
| 6/30/2016 | $ 9,042,663 | $ 56,617,088 | 49.50% | $ (388,209) | $ 65,271,542 |

### Deductions by Type

| Fiscal Year Ending | | Benefits | Administrative Expenses | Actuarial Expense | Separation Refunds | Death Refunds | 401(h) Distribution to County | Total |
|---|---|---|---|---|---|---|---|---|
| 6/30/07 | * | $29,577,586 | $1,014,953 | $41,100 | $703,867 | $ - | $850,000 | $32,187,506 |
| 6/30/08 | | $33,394,363 | $1,029,916 | $53,500 | $553,705 | $99,438 | $850,000 | $35,980,922 |
| 6/30/09 | | $36,478,886 | $1,005,060 | $61,795 | $683,528 | $77,275 | $850,000 | $39,156,544 |
| 6/30/10 | | $40,929,109 | $1,170,605 | $66,549 | $673,160 | $ - | $850,000 | $43,689,423 |
| 6/30/11 | | $45,022,104 | $1,189,030 | $138,200 | $766,692 | $ - | $650,000 | $47,766,026 |
| 6/30/12 | | $49,839,653 | $1,180,083 | $63,312 | $1,051,526 | $ - | $733,590 | $52,868,164 |
| 6/30/13 | | $54,257,547 | $1,496,338 | $71,402 | $1,082,050 | $ - | $ - | $56,907,337 |
| 6/30/14 | | $57,338,930 | $1,434,671 | $112,676 | $703,091 | $ - | $ - | $59,589,368 |
| 6/30/15 | | $61,780,089 | $2,197,281 | $126,165 | $1,171,835 | $ - | $ - | $65,275,370 |
| 6/30/16 | | $63,928,672 | $2,416,563 | $76,121 | $1,153,731 | $ - | $ - | $67,575,087 |

*Beginning with June 30, 2001 the amounts listed under Administrative, Actuarial Expense, and Other Expenses have been reclassified to conform to the 2005 presentation. MCERA separated the types of refunds as of 2008 presentation.

# Merced County Employees' Retirement Association
## Schedule of Changes in Fiduciary Net Position
### (Dollar Amount in Thousands)

| Additions | 6/30/16 | 6/30/15 | 6/30/14 | 6/30/13 | 6/30/12 |
|---|---|---|---|---|---|
| Plan members contributions | $ 9,043 | $ 8,945 | $ 9,643 | $ 9,928 | $ 10,416 |
| Employer contributions | 56,617 | 52,005 | 48,032 | 43,784 | 40,263 |
| Net investment income/(loss) | (388) | 19,319 | 96,219 | 61,083 | (7,039) |
| Total additions | 65,272 | 80,269 | 153,894 | 114,795 | 43,640 |
| **Deductions** | | | | | |
| Benefits paid | 63,929 | 61,780 | 57,339 | 54,258 | 49,839 |
| Refunds | 1,154 | 1,172 | 703 | 1,082 | 1,052 |
| Administrative expenses | 2,417 | 2,197 | 1,435 | 1,496 | 1,180 |
| Actuarial expenses | 76 | 126 | 112 | 71 | 63 |
| 401(h) distribution | - | - | - | - | 734 |
| Total deductions | 67,576 | 65,275 | 59,589 | 56,907 | 52,868 |
| **Change in fiduciary net position** | (2,304) | 14,994 | 94,305 | 57,888 | (9,228) |
| **Net position restricted for pensions at beginning of the year** | 672,319 | 657,325 | 563,020 | 505,132 | 514,361 |
| **Net position restricted for pensions at end of the year** | $ 670,015 | $ 672,319 | $ 657,325 | $ 563,020 | $ 505,132 |

| Additions | 6/30/11 | 6/30/10 | 6/30/09 | 6/30/08 | 6/30/07 |
|---|---|---|---|---|---|
| Plan members contributions | $ 9,754 | $ 9,864 | $ 9,916 | $ 9,358 | $ 8,755 |
| Employer contributions | 36,662 | 29,137 | 27,883 | 23,751 | 23,232 |
| Net investment income/(loss) | 96,032 | 48,772 | (105,689) | (33,797) | 73,614 |
| Total additions | 142,448 | 87,773 | (67,890) | (688) | 105,601 |
| **Deductions** | | | | | |
| Benefits paid | 45,022 | 40,929 | 36,479 | 33,394 | 29,578 |
| Refunds | 1,189 | 1,171 | 1,005 | 1,030 | 1,014 |
| Administrative expenses | 138 | 67 | 62 | 54 | 41 |
| Actuarial expenses | 767 | 673 | 761 | 653 | 704 |
| 401(h) distribution | 650 | 850 | 850 | 850 | 850 |
| Total deductions | 47,766 | 43,690 | 39,157 | 35,981 | 32,187 |
| **Change in fiduciary net position** | 94,683 | 44,083 | (107,047) | (36,669) | 73,414 |
| **Net position restricted for pensions at beginning of the year** | 419,678 | 375,595 | 482,642 | 519,311 | 445,897 |
| **Net position restricted for pensions at end of the year** | $ 514,361.00 | $ 419,678.00 | $ 375,595.00 | $ 482,642.00 | $ 519,311.00 |

# Merced County Employees' Retirement Association

## Schedule of Benefit Expenses by Type

### (Dollar Amount in Thousands)

| | 2016* * | 2015* * | 2014* | 2013* | 2012* | 2011* | 2010* | 2009* | 2008* | 2007 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Service Retirement** | | | | | | | | | | |
| Payroll | | | | | | | | | | |
| General | $ 46,126 | $ 44,722 | $ 41,442 | $ 39,447 | $ 35,897 | $ 31,770 | $ 28,665 | $ 25,086 | $ 22,868 | $ 21,924 |
| Safety | 7,761 | 7,854 | 7,196 | 6,679 | 6,209 | 5,845 | 5,404 | 4,720 | 4,139 | 3,813 |
| **Total** | $ 53,887 | $ 52,576 | $ 48,638 | $ 46,126 | $ 42,106 | $ 37,615 | $ 34,069 | $ 29,806 | $ 27,007 | $ 25,737 |
| **Disability Retiree** | | | | | | | | | | |
| Payroll | | | | | | | | | | |
| General | $ 1,953 | $ 1,842 | $ 2,600 | $ 2,489 | $ 2,230 | $ 2,159 | $ 2,154 | $ 2,103 | $ 1,975 | $ 1,555 |
| Safety | 2,604 | 2,623 | 3,005 | 2,898 | 2,738 | 2,522 | 2,424 | 2,396 | 2,312 | 1,907 |
| **Total** | $ 4,557 | $ 4,465 | $ 5,605 | $ 5,387 | $ 4,968 | $ 4,681 | $ 4,578 | $ 4,499 | $ 4,287 | $ 3,462 |
| **Beneficiary/Survivors** | | | | | | | | | | |
| Payroll | | | | | | | | | | |
| General | $ 3,667 | $ 3,327 | $ 2,346 | $ 2,030 | $ 2,035 | $ 2,049 | $ 1,762 | $ 1,574 | $ 1,686 | $ 1,957 |
| Safety | 1,650 | 1,258 | 610 | 562 | 579 | 521 | 412 | 380 | 414 | 667 |
| **Total** | $ 5,317 | $ 4,585 | $ 2,956 | $ 2,592 | $ 2,614 | $ 2,570 | $ 2,174 | $ 1,954 | $ 2,100 | $ 2,624 |
| **Total Retiree Payroll Expense** | | | | | | | | | | |
| Payroll | | | | | | | | | | |
| General | $ 51,746 | $ 49,891 | $ 46,387 | $ 43,966 | $ 40,162 | $ 35,978 | $ 32,580 | $ 28,763 | $ 26,529 | $ 25,436 |
| Safety | $ 12,015 | 11,735 | 10,811 | 10,139 | 9,526 | 8,887 | 8,240 | 7,496 | 6,865 | 6,387 |
| **Total** | $ 63,761 | $ 61,626 | $ 57,198 | $ 54,105 | $ 49,688 | $ 44,865 | $ 40,820 | $ 36,259 | $ 33,394 | $ 31,823 |
| **Death Benefits** | | | | | | | | | | |
| General | $ 129 | 84 | 96 | 96 | 117 | 81 | 99 | 179 | - | - |
| Safety | 15 | 18 | 18 | 12 | 9 | - | 9 | 41 | - | - |
| **Total** | $ 144 | $ 102 | $ 114 | $ 108 | $ 126 | $ 81 | $ 108 | 220 | - | - |
| **Separation Refund Expense** | | | | | | | | | | |
| General | $ 978 | $ 1,033 | $ 582 | $ 985 | $ 861 | $ 729 | $ 599 | 562 | - | - |
| Safety | 176 | 139 | 121 | 97 | 190 | 37 | 74 | 122 | - | - |
| **Total** | $ 1,154 | $ 1,172 | $ 703 | $ 1,082 | $ 1,051 | $ 766 | $ 673 | 684 | - | - |
| **Active Death Expense** | | | | | | | | | | |
| General | $ 24 | $ 51 | $ 29 | $ 44 | $ 26 | 82 | $ - | 77 | - | - |
| Safety | - | - | - | - | - | - | - | - | - | - |
| **Total** | $ 24 | $ 51 | $ 29 | $ 44 | $ 26 | 82 | $ - | 77 | - | - |

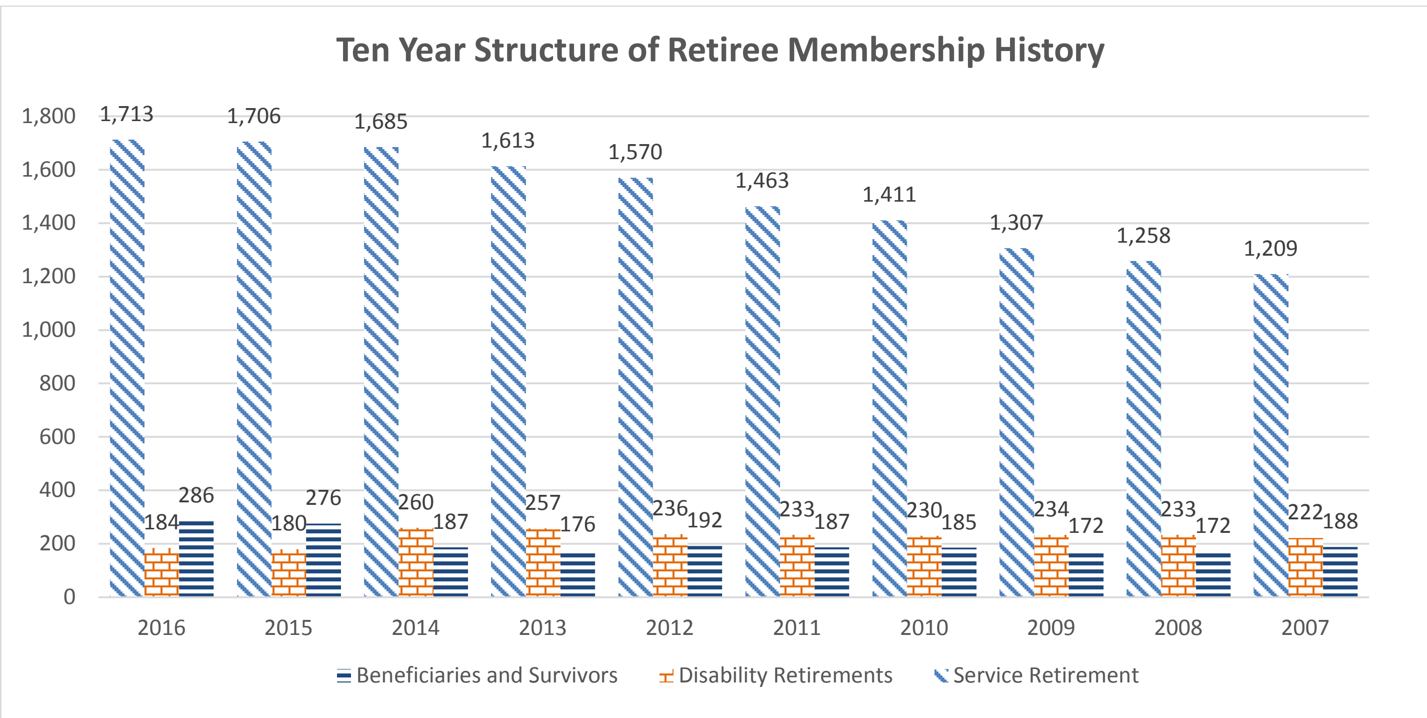
* Prior to 2008 this information was provided by the MCERA's actuary and included benefit payments expected to be distributed, refunds and 401(h) distribution to County and did not represent actual amounts distributed. In 2008 MCERA is calculating this information as actual benefits distributed. In 2009 MCERA added separation refunds, death refunds and death benefits. Prior to 2009 this information was not separately identified. The information was compiled from County of Merced Information Systems and CPAS. In 2011, MCERA changed death refund expense to active death expense to better identify expense for active member death.

* *During the 2015 fiscal year, MCERA Converted to the CPAS System. Because of differences in handling of data, beneficiaries of disability retiree decedents are now grouped with Beneficiary/Survivors.

## Merced County Employees' Retirement Association
## Schedule of Retired Members by Type of Benefit
### (Summary of Monthly Allowances Being Paid—As of June 30, 2016)

| Type of Benefit | General Members | | Safety Members | | Total | |
|---|---|---|---|---|---|---|
| | Number | Average Monthly Allowances | Number | Average Monthly Allowances | Number | Average Monthly Allowances |
| **Service Retirement** | 1,525 | $ 2,570 | 188 | $ 3,505 | 1,713 | $ 2,673 |
| **Disability** | 101 | $ 1,820 | 83 | $ 2,617 | 184 | $ 2,179 |
| **Beneficiaries/Survivors** | 234 | $ 1,263 | 52 | $ 2,303 | 286 | $ 1,452 |
| **Total Retired Members** | 1,860 | $ 2,293 | 323 | $ 3,083 | 2,183 | $ 2,471 |

This schedule excludes separation refunds and death refunds




| | 2016* | 2015* | 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Service Retirement** | 1,713 | 1,706 | 1,685 | 1,613 | 1,570 | 1,463 | 1,411 | 1,307 | 1,258 | 1,209 |
| **Disability Retirements** | 184 | 180 | 260 | 257 | 236 | 233 | 230 | 234 | 233 | 222 |
| **Beneficiaries and Survivors** | 286 | 276 | 187 | 176 | 192 | 187 | 185 | 172 | 172 | 188 |
| **Total** | 2,183 | 2,162 | 2,132 | 2,046 | 1,998 | 1,883 | 1,826 | 1,713 | 1,663 | 1,619 |

*During the 2014-2015 fiscal year, MCERA migrated to a new pension administration system. Beneficiaries of disability retirees are no longer classified as disability retirements. This has resulted in a re-proportioning of these numbers.

# Merced County Employees' Retirement Association
## Summary of Retired Membership
### For Years Ended June 30
### (Basic Annual and Total Annual Allowance Dollars in Thousands)

| | 2016* | 2015* | 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 |
|---|---|---|---|---|---|---|---|---|---|---|
| **GENERAL** | | | | | | | | | | |
| Number | 1,860 | 1,848 | 1,810 | 1,730 | 1,693 | 1,590 | 1,545 | 1,454 | 1,412 | 1,381 |
| Basic Annual Allowance | $41,265 | $40,316 | $37,646 | $35,885 | $32,933 | $29,232 | $26,331 | $22,771 | $22,592 | $20,021 |
| Average Basic Monthly Allowance | $1,849 | $1,818 | $1,733 | $1,729 | $1,621 | $1,532 | $1,420 | $1,305 | $1,333 | $1,206 |
| Total Annual Allowance | $51,746 | $49,891 | $46,387 | $43,966 | $40,161 | $35,978 | $32,561 | $28,712 | $28,019 | $25,435 |
| Average Total Monthly Allowance | $2,318 | $2,250 | $2,136 | $2,118 | $1,976 | $1,886 | $1,756 | $1,646 | $1,654 | $1,533 |
| **SAFETY** | | | | | | | | | | |
| Number | 323 | 314 | 322 | 316 | 305 | 293 | 281 | 259 | 251 | 238 |
| Basic Annual Allowance | $9,086 | $8,996 | $8,279 | $7,791 | $7,379 | $6,863 | $6,401 | $5,746 | $5,262 | $4,807 |
| Average Basic Monthly Allowance | $2,344 | $2,387 | $2,143 | $2,054 | $2,016 | $1,952 | $1,898 | $1,849 | $1,747 | $1,690 |
| Total Annual Allowance | $12,015 | $11,735 | $10,811 | $10,139 | $9,527 | $8,887 | $8,240 | $7,497 | $6,878 | $6,388 |
| Average Total Monthly Allowance | $3,100 | $3,114 | $2,798 | $2,674 | $2,603 | $2,528 | $2,444 | $2,412 | $2,284 | $2,246 |
| **TOTAL** | | | | | | | | | | |
| Number | 2,183 | 2,162 | 2,132 | 2,046 | 1,998 | 1,883 | 1,826 | 1,713 | 1,663 | 1,619 |
| Basic Annual Allowance | $50,351 | $49,312 | $45,925 | $43,676 | $40,312 | $36,095 | $32,732 | $28,517 | $27,854 | $24,828 |
| Average Basic Monthly Allowance | $1,922 | $1,901 | $1,795 | $1,779 | $1,681 | $1,597 | $1,494 | $1,387 | $1,396 | $1,277 |
| Total Annual Allowance** | $63,761 | $61,626 | $57,198 | $54,106 | $49,688 | $44,865 | $40,801 | $36,209 | $34,897 | $31,823 |
| Average Total Monthly Allowance | $2,434 | $2,375 | $2,236 | $2,204 | $2,072 | $1,986 | $1,862 | $1,761 | $1,749 | $1,637 |

* As of 2015, divorcees will be excluded from Membership data as they are technically not members and only represent a party to a single split benefit.

** Total Annual Allowance includes COLA, and partial monthly payment/one-time catch up payment. Excludes death refunds, lump sum death benefits and separation refunds.

## Merced County Employees' Retirement Association
## Retired Members by Type of Retirement
**As of June 30, 2016**

| Amount of Monthly Benefit | Number of Members | Type of Retirement* 1 | 2 | 3 | 4 | 5 | 6 | 7 | Option Selected** U | 1 | 2 | 3 | 4 | SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 - 250 | 86 | 20 | 36 | 24 | 0 | 5 | 1 | 0 | 53 | 5 | 20 | 8 | 0 | 0 |
| 251 - 500 | 149 | 39 | 71 | 21 | 4 | 4 | 3 | 7 | 111 | 4 | 27 | 3 | 0 | 4 |
| 501 - 750 | 186 | 54 | 89 | 28 | 4 | 3 | 1 | 7 | 150 | 8 | 21 | 3 | 0 | 4 |
| 751 - 1,000 | 180 | 52 | 82 | 28 | 5 | 0 | 7 | 6 | 148 | 6 | 17 | 4 | 0 | 5 |
| 1,001 - 1,250 | 179 | 60 | 71 | 24 | 6 | 3 | 13 | 2 | 145 | 4 | 21 | 2 | 1 | 6 |
| 1,251 - 1,500 | 158 | 55 | 65 | 14 | 1 | 9 | 13 | 1 | 135 | 3 | 12 | 7 | 0 | 1 |
| 1,501 - 1,750 | 136 | 53 | 45 | 16 | 1 | 10 | 7 | 4 | 115 | 1 | 12 | 6 | 1 | 1 |
| 1,751 - 2,000 | 127 | 59 | 39 | 9 | 2 | 14 | 1 | 3 | 111 | 0 | 12 | 2 | 0 | 2 |
| Over 2,000 | 982 | 462 | 361 | 46 | 5 | 86 | 4 | 18 | 863 | 27 | 64 | 14 | 9 | 5 |
| | 2,183 | 854 | 859 | 210 | 28 | 134 | 50 | 48 | 1,831 | 58 | 206 | 49 | 11 | 28 |

**Notes:**

*Type of Retirement:

1—Normal Retirement for age and service
2—Early retirement
3—Beneficiary payment, normal or early retirement
4—Beneficiary payment, death in service
5—Duty disability retirement
6—Non-duty disability retirement
7—Beneficiary payment, disability retirement

**Option Selected:

Unmodified Plan—Beneficiary receives 60 % continuance.

The following options reduce the retired member's monthly benefit:

Option 1—Beneficiary receives lump sum or member's unused contributions
Option 2—Beneficiary receives 100% of member's reduced allowance
Option 3—Beneficiary receives 50% of member's reduced allowance
Option 4—Multiple beneficiaries receive a designated percentage of a reduced allowance

The monthly benefit for the following option varies dependent upon multiple factors:

Option SD—Pre-retirement death in service.

*In last year's CAFR, due to the change in pension administration software, we were able to compile statistics for Type 7 retirees. Additionally, we started to differentiate beneficiaries of members who deceased while in service. These deceased members never retired and thus were unable to select an option. Therefore, we felt it necessary to separate these individuals into a new category.*

# Merced County Employees' Retirement Association

## Retired Members Average Benefit Payments

### Last Ten Years

| Retirement Effective Dates | Years of Credited Service 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30+ |
|---|---|---|---|---|---|---|---|
| **Period 7/1/2015 to 6/30/2016** | | | | | | | |
| Average monthly benefit | $212 | $1,273 | $2,067 | $3,227 | $2,997 | $3,724 | $4,669 |
| Average final average salary | $7,449 | $5,585 | $6,322 | $6,299 | $4,703 | $4,750 | $4,875 |
| Number of retired members | 8 | 15 | 19 | 11 | 4 | 4 | 2 |
| **Period 7/1/2014 to 6/30/2015** | | | | | | | |
| Average monthly benefit | $448 | $1,083 | $1,650 | $2,434 | $2,981 | $3,438 | $8,150 |
| Average final average salary | $7,700 | $5,994 | $5,007 | $5,401 | $5,303 | $4,903 | $8,849 |
| Number of retired members | 10 | 11 | 28 | 17 | 14 | 5 | 3 |
| **Period 7/1/2013 to 6/30/2014** | | | | | | | |
| Average monthly benefit | $426 | $1,121 | $1,634 | $2,714 | $4,018 | $5,013 | $5,992 |
| Average final average salary | $8,946 | $4,750 | $4,587 | $5,441 | $6,527 | $6,566 | $7,088 |
| Number of retired members | 7 | 17 | 22 | 16 | 15 | 13 | 13 |
| **Period 7/1/2012 to 6/30/2013** | | | | | | | |
| Average monthly benefit | $467 | $1,240 | $1,750 | $2,183 | $3,895 | $4,201 | $6,431 |
| Average final average salary | $8,663 | $6,466 | $5,215 | $4,591 | $7,293 | $5,695 | $7,463 |
| Number of retired members | 4 | 11 | 24 | 15 | 9 | 8 | 6 |
| **Period 7/1/2011 to 6/30/2012** | | | | | | | |
| Average monthly benefit | $612 | $899 | $1,359 | $2,476 | $3,958 | $4,683 | $6,166 |
| Average final average salary | $9,507 | $4,097 | $3,953 | $5,148 | $6,270 | $6,257 | $7,060 |
| Number of retired members | 5 | 9 | 26 | 27 | 36 | 15 | 24 |
| **Period 7/1/2010 to 6/30/2011** | | | | | | | |
| Average monthly benefit | $805 | $926 | $1,120 | $2,171 | $3,693 | $4,289 | $8,010 |
| Average final average salary | $8,545 | $5,111 | $4,042 | $4,657 | $5,715 | $5,687 | $8,180 |
| Number of retired members | 8 | 21 | 23 | 8 | 18 | 5 | 5 |
| **Period 7/1/2009 to 6/30/2010** | | | | | | | |
| Average monthly benefit | $359 | $1,247 | $1,354 | $2,831 | $4,149 | $4,563 | $5,294 |
| Average final average salary | $7,068 | $6,819 | $4,167 | $5,713 | $6,780 | $6,148 | $6,112 |
| Number of retired members | 7 | 14 | 25 | 24 | 31 | 15 | 22 |
| **Period 7/1/2008 to 6/30/2009** | | | | | | | |
| Average monthly benefit | $485 | $1,020 | $1,321 | $3,992 | $4,521 | $4,022 | $6,335 |
| Average final average salary | $7,668 | $4,285 | $4,545 | $7,526 | $7,935 | $5,455 | $7,172 |
| Number of retired members | 5 | 9 | 21 | 11 | 14 | 10 | 12 |
| **Period 7/1/2007 to 6/30/2008** | | | | | | | |
| Average monthly benefit | $417 | $959 | $1,496 | $2,380 | $2,828 | $4,078 | $5,214 |
| Average final average salary | $6,765 | $4,366 | $4,714 | $5,203 | $6,662 | $5,470 | $4,311 |
| Number of retired members | 4 | 15 | 16 | 13 | 13 | 9 | 6 |
| **Period 7/1/2006 to 6/30/2007** | | | | | | | |
| Average monthly benefit | $1,650 | $873 | $1,291 | $1,939 | $3,209 | $3,890 | $6,176 |
| Average final average salary | $14,598 | $3,771 | $4,449 | $4,430 | $5,348 | $5,163 | $7,070 |
| Number of retired members | 1 | 12 | 25 | 32 | 16 | 19 | 17 |

Information compiled from CPAS data

# Merced County Employees’ Retirement Association
## Participating Employers and Active Members
### Current Year and Nine Years Ago
### (Information Compiled from Plan’s Data Base)

| | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 |
|---|---|---|---|---|---|---|---|---|---|---|
| **County of Merced** | | | | | | | | | | |
| General Members | 1,596 | 1,542 | 1,490 | 1,478 | 1,453 | 1,521 | 1,575 | 1,708 | 1,852 | 1,848 |
| Safety Members | 311 | 300 | 298 | 294 | 306 | 322 | 331 | 342 | 352 | 328 |
| Total County of Merced | 1,907 | 1,842 | 1,788 | 1,772 | 1,759 | 1,843 | 1,906 | 2,050 | 2,204 | 2,176 |
| Percentage of Membership | 93.39% | 93.65% | 93.56% | 93.21% | 92.53% | 92.85% | 93.44% | 93.87% | 94.19% | 94.69% |
| **Participating Agencies** | | | | | | | | | | |
| **Merced Cemetery District** | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 |
| Percentage of Membership | 0.05% | 0.05% | 0.05% | 0.05% | 0.11% | 0.10% | 0.09% | 0.13% | 0.13% | 0.13% |
| **Transit Joint Powers Authority** | - | - | - | - | 1 | 3 | 3 | - | - | - |
| Percentage of Membership | - | - | - | - | 0.05% | 0.15% | 0.0014 | - | - | - |
| **Superior Court of California** | 129 | 118 | 112 | 115 | 126 | 137 | 137 | 137 | 133 | 119 |
| Percentage of Membership | 6.32% | 6.00% | 5.86% | 6.05% | 6.63% | 6.90% | 6.33% | 6.01% | 5.68% | 5.17% |
| **Regional Waste Management Authority** | 5 | 6 | 10 | 13 | 13 | - | - | - | - | - |
| Percentage of Membership | 0.24% | 0.31% | 0.52% | 0.68% | 0.0068 | - | - | - | - | - |
| Total Members of Participating Agencies | 135 | 125 | 123 | 129 | 142 | 142 | 142 | 140 | 136 | 122 |
| **Total Active Membership** | | | | | | | | | | |
| General | 1,731 | 1,667 | 1,613 | 1,607 | 1,595 | 1,663 | 1,717 | 1,848 | 1,988 | 1,970 |
| Safety | 311 | 300 | 298 | 294 | 306 | 322 | 331 | 342 | 352 | 328 |
| Total | 2,042 | 1,967 | 1,911 | 1,901 | 1,901 | 1,985 | 2,048 | 2,190 | 2,340 | 2,298 |