ORANGE COUNTY
OCERS
EMPLOYEES RETIREMENT SYSTEM

Comprehensive Annual Financial Report

For the Year Ended December 31, 2017

Orange County, California

OCERS Members Serving the Public

Pieces of Public Health Services

Health Care Agency | Social Services Agency | Orange County In-Home Supportive Services Public Authority
Children & Families Commission of Orange County | Orange County Sanitation District

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OCERS
EMPLOYEES RETIREMENT SYSTEM

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Pieces of Public Health Services

Orange County Employees Retirement System

Comprehensive Annual Financial Report

For the Year Ended December 31, 2017

Prepared by: The Finance Division of the
Orange County Employees Retirement System

Issued by: Steve Delaney, Chief Executive Officer
Brenda Shott, Assistant CEO of Finance and Internal Operations

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ORANGE COUNTY
OCERS
EMPLOYEES RETIREMENT SYSTEM

Mission

We provide secure retirement and disability benefits with the highest standards of excellence.

Vision

To be a trusted partner providing premier pension administration, distinguished by consistent, quality member experiences and prudent financial stewardship.

Values

__O__pen and Transparent
__C__ommitment to Superior Service
__E__ngaged and Dedicated Workforce
__R__eliable and Accurate
__S__ecure and Sustainable

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Section I

Introductory

Health Care Agency (HCA)

It is the mission of the Orange County Health Care Agency to protect and promote the health and safety of individuals and families in Orange County through assessment and planning, prevention and education, and treatment and care. HCA provides many pieces of health services to the community, through public health clinics that promote family-focused preventative health care, nutrition services and dental services; advising swimmers of the levels of bacteria in the ocean which rise after rain storms; closing affected ocean areas when needed due to sewage spills; notifying residents of a heat advisory on extreme heat days; providing locations for disposing of unused medical prescriptions; and performing food and restaurant inspections. These are just a few of the many services offered to our community by the 2,500 employees of HCA which include doctors, nurses, dentists, mental, environmental and public health workers, educators, administrative professionals and so much more.

Letter of Transmittal

ORANGE COUNTY
OCERS
EMPLOYEES RETIREMENT SYSTEM

Serving the Active and Retired Members of:

- City of San Juan Capistrano
- County of Orange
- Orange County Cemetery District
- Orange County Children & Families Commission
- Orange County Department of Education (closed to new members)
- Orange County Employees Retirement System
- Orange County Fire Authority
- Orange County In-Home Supportive Services Public Authority
- Orange County Local Agency Formation Commission
- Orange County Public Law Library
- Orange County Sanitation District
- Orange County Transportation Authority
- Superior Court of California, County of Orange
- Transportation Corridor Agencies
- UCI Medical Center and Campus (closed to new members)

June 7, 2018

Board of Retirement
Orange County Employees Retirement System
2223 East Wellington Avenue, Suite 100
Santa Ana, CA 92701

Dear Board Members,

I am pleased to present the Comprehensive Annual Financial Report (CAFR) of the Orange County Employees Retirement System (OCERS or System) as of and for the year ended December 31, 2017. The information contained in this report is intended to provide a detailed overview of the System's financial and investment results for the year ended December 31, 2017. It also includes information from the current actuarial valuation as of December 31, 2016.

OCERS and its Services

Established in 1945, OCERS is a public retirement system that has provided service retirement, disability, death and survivor benefits to its members for 72 years, administered in accordance with the County Employees Retirement Law of 1937 (CERL).

Pursuant to certain provisions of CERL, OCERS is an independent governmental unit within the County of Orange, with a separate operating budget and professional staff. The California Constitution gives the Board of Retirement full authority over the administration of the System, which includes administering plan benefits for over 44,000 members, managing $15.1 billion in net assets, and serving 13 active agencies. A complete listing of both active and inactive agencies as of December 31, 2017, can be found on page 30, Section II of the CAFR, under Note 1: Plan Descriptions.

OCERS recognizes that prior to retiring from a career in public service, our members are dedicated to providing an array of services that benefit residents throughout Orange County. With many different services to choose from, this year's CAFR theme, "OCERS Members Serving the Public" focuses on agencies whose members provide various public health services within our community. We hope you enjoy reading and learning about the "Pieces of Public Health Services" that are highlighted in this year's CAFR.

Major Initiatives and Significant Events

Vision and Values

During 2017, after input from staff and in-depth discussions of what best represented the vision and values of the System to support its mission to provide secure retirement and disability benefits with the highest standards of excellence, the OCERS Board of Retirement adopted the following Vision Statement and Values:

Letter of Transmittal

(continued)

Vision Statement

"To be a trusted partner providing premier pension administration, distinguished by consistent, quality member experiences and prudent financial stewardship."

Values

Open and Transparent
Commitment to Superior Service
Engaged and Dedicated Workforce
Reliable and Accurate
Secure and Sustainable

Technology Update

The security of OCERS' data and systems continues to be a top priority and we remain vigilant and focused on protecting our members' information and the systems which we rely upon for our daily operations. This includes monthly security awareness and phishing tests of employees that serve to train staff on how to identify dangerous emails. We also completed adding security enhancements to the Member Self-Service (MSS) portals, including automatic generation of a paper letter informing a member whenever a new MSS portal account has been created and the creation of a unique PIN number for each member, which is required whenever a member creates an MSS portal account. The Board also approved a newly created position, Director of Cybersecurity, to oversee OCERS' cybersecurity program with the hiring process expected to be completed sometime in 2018.

OCERS business continuity and disaster recovery (BC/DR) plan had notable developments during 2017, including the successful transition to a new, fully integrated cloud-based telephone system that provides BC/DR capabilities that were not present in the previous system; namely, the ability to use laptops and mobile devices as phones in lieu of a desk phone in case of an emergency. We also relocated OCERS' data center to a locally, professionally-managed facility and the establishment of a secondary site out of the state is near completion.

Workforce Analysis

OCERS retained the services of Management Partners to complete a workforce analysis that included a comprehensive review of OCERS' existing staffing model. This analysis involved an assessment of OCERS' organizational structure, staffing levels and employee classifications with the goals of clarifying and aligning staff responsibilities and recommending staffing changes to equip OCERS with the necessary resources to effectively serve our members now and in the future. Based on this analysis, OCERS has developed a staffing plan that includes the hiring of additional staff to accommodate increases in the volume of work across multiple departments, reduce the reliance on temporary staff and address employee turnover.

Key Staff Additions

After completing a competitive recruitment and selection process, OCERS named Molly Murphy as its new Chief Investment Officer (CIO). Ms. Murphy assumed her new position in June 2017 after previously serving in the private sector as CIO of Mercy Health based in Cincinnati, Ohio. OCERS also had an additional 13 new hires and 9 internal promotions in 2017.

Board Member Updates

Mr. David Ball and Mr. Chuck Packard were reconfirmed as appointed members by the Board of Supervisors for another 3-year term beginning January 1, 2017. The Board of Supervisors also appointed Mr. Shawn Dewane to replace outgoing appointed member Mr. Thomas Flanigan who served from October 2008 through February 2017.

Letter of Transmittal

(continued)

Financial Information

OCERS' management is responsible for the complete and fair presentation of the financial information in accordance with generally accepted accounting principles (GAAP) in the United States. To the best of our knowledge, the enclosed data is accurate in all material respects and is reported in a manner designed to fairly present the financial position and operating results of OCERS.

The CAFR was prepared in accordance with GAAP and reporting guidelines set forth by the Governmental Accounting Standards Board (GASB) and CERL. GAAP requires that management provide a narrative introduction, overview, and analysis to accompany the basic financial statements in the form of management's discussion and analysis (MD&A). This letter of transmittal is designed to complement the MD&A and should be read in conjunction with it. OCERS' MD&A can be found immediately following the independent auditor's report.

OCERS' management is responsible for establishing a system of internal controls to safeguard assets and for the presentation of the accompanying basic financial statements. Oversight is provided by OCERS' Audit Committee, supported by internal auditing staff. Macias Gini & O Connell LLP (MGO) audited the accompanying basic financial statements and related disclosures. The financial audit provides reasonable assurance that OCERS' financial statements are presented in conformity with GAAP and are free from material misstatement. Internal controls are considered in assessing whether OCERS' operating policies and procedures are being adhered to and are sufficient to safeguard OCERS' assets. OCERS recognizes even sound internal controls have inherent limitations. OCERS' internal controls are designed to provide reasonable, but not absolute, assurance these objectives are met. The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits likely to be derived and that the valuation of costs and benefits requires estimates and judgment by management.

Investment Activities

The Board of Retirement (with the participation of the Investment Committee, staff and advisors) has exclusive control of all investments of the System and is responsible for the establishment of investment objectives, strategies and policies. OCERS' Investment Beliefs Statement helps guide decisions that impact OCERS' investment structure with the overall objective to invest the assets of the System solely for the benefit of its members while attempting to minimize employer contributions and investment and administration costs. In January 2017, the Board adopted a more simplified asset allocation policy, taking into consideration a risk framework with an objective to lower investment management fees.

OCERS also recently completed its search for illiquid investments advisory services, selecting TorreyCove Capital Partners for private equity and private real assets consulting services and Townsend Group for real estate consulting services. OCERS will be working with TorreyCove to begin building out a direct private equity program, which will save OCERS from paying the second layer of fund-of-funds fees. OCERS will also begin working with Townsend to develop a strategic plan for the real estate portfolio going forward.

For the year ended December 31, 2017, OCERS' investment portfolio returned 14.51%, net of fees. Over the three-year and five-year period ended December 31, 2017, OCERS' investment portfolio returns, net of investment management fees, were 7.47% and 7.58%, respectively.

Pension Actuarial Funding Status

OCERS maintains a funding goal to establish contributions that fully fund the System's liabilities, and that, as a percentage of payroll, remain as level as possible for each generation of active members. It also ensures that contributions are sufficient for each generation of active members to avoid an inter-generational burden on future employees' contributions. Actuarial valuations are performed annually with actuarial experience investigations conducted triennially in accordance with state statute. The use of realistic assumptions is important in maintaining the necessary funding while paying promised benefits. Each year the actual experience of the System is compared to our assumptions and the differences are studied to determine whether changes in the contribution requirements are necessary. In addition, triennially, the actuarial experience investigation is undertaken to review the actuarial assumptions and compare the actual experience during the preceding three year period with that expected under those assumptions. The latest experience investigation was completed during 2017 for plan years ending in 2014 through 2016. The Board adopted changes in several assumptions that will be incorporated into the 2017 actuarial valuation, including a change in the assumed rate of return from 7.25% to 7.00%.

As of the most current actuarial valuation for the year ended December 31, 2016, OCERS' funding status was 73.06% on a valuation basis, versus 70.58% on a market value basis, with an Unfunded Actuarial Accrued Liability (UAAL) of $4.83 billion. Average employer and employee contribution rates for the year ended December 31, 2016, were 37.77% and 12.45%, respectively.

Letter of Transmittal

(continued)

Budget

The Board of Retirement approves OCERS' annual budget. The 1937 Act limits OCERS' annual administrative expenses, excluding the costs of administration for computer software and hardware and computer technology consulting services (IT costs), to twenty-one hundredths of one percent (0.21%) of OCERS' actuarial accrued liability. OCERS' 2017 administrative expense of $15.3 million was .08% of OCERS' actuarial accrued liability.

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 OCERS for its CAFR for the year ended December 31, 2016. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

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

OCERS was also the recipient of the Public Pension Coordinating Council (PPCC) Award in recognition of compliance with professional standards for plan design and administration for the year ended December 31, 2016. This is awarded to a retirement system that meets the professional standards for plan design and administration as set forth in the Public Pension Standards, including a Comprehensive Benefit Program, Funding Adequacy, Actuarial Valuation, Independent Audit, Investments, and Communications. A Public Pension Standards Award is valid for a period of one year.

Acknowledgements

I would like to take this opportunity to thank the members of the System for their continued confidence in OCERS during the past year. Also, I would like to express my thanks to the Board of Retirement for its dedicated effort in supporting the System throughout this past year. Finally, I would like to thank the staff and consultants for their commitment to OCERS and their diligent work to assure the System's continued success.

Respectfully submitted,

Steve Delaney

Steve Delaney
Chief Executive Officer

Members of the Board of Retirement

As of December 31, 2017

David Ball
Chair Person
Appointed by the Board of Supervisors

Chris Prevatt
Vice Chair Person
Elected by General Members

Russell Baldwin
Elected by General Members

Shawn Dewane
Appointed by the Board of Supervisors

Frank E. Eley
Elected by Retired Members

Shari L. Freidenrich
Treasurer-Tax Collector County of Orange

Eric W. Gilbert
Alternate Elected by Safety Members

Roger Hilton
Elected by Safety Members

Wayne Lindholm
Appointed by the Board of Supervisors

Charles E. Packard
Appointed by the Board of Supervisors

Organization of OCERS

Board of Retirement

The Board of Retirement is responsible for establishing policies governing the administration of the retirement plan, disability determinations, assuring benefit payments, establishing investment policy for the System and monitoring execution of its policies. The Board of Retirement consists of nine members and one alternate. Four members of the Board of Retirement are appointed by the Board of Supervisors of the County; four members are elected by active members of the System, including two by the general members, two by the safety members, of which one is the alternate member; one member is elected by the retirees; and the Treasurer of the County, elected by registered voters in the County, serves as an Ex-Officio member.

Executive Department

This department consists of the Chief Executive Officer (CEO) who implements and executes policies promulgated by the Board of Retirement. Two Assistant CEOs, an Internal Auditor, a Chief Investment Officer and a General Counsel assist the CEO in the daily operations of the System.

Investment Department

This department is responsible for the administration and management of the investment program, in accordance with policies, regulations, and guidelines set forth by the Board of Retirement. It is responsible for the interface with investment managers, including monitoring investment performance objectives, adherence to investment guidelines, conducting due diligence visits to investment managers' sites, and interviewing prospective investment managers. This department is also responsible for the interface with outside investment consultants in reviewing and evaluating all investment managers' performance and investment manager fees. Refer to the Investment Section on pages 86 and 87 for the Schedules of Commissions and Investment Expenses.

External Operations Department

This department is comprised of the following divisions: Member Services and Communications.

The Member Services Division is responsible for providing all benefit services to the members of the System. This includes benefit calculations, preparation of data to support applications for retirement, preparation of the retiree payroll, processing transmittals, membership counseling, and retirement seminars. The Disability section of Member Services is responsible for reviewing claims and medical records; interviewing applicants and witnesses; preparing written reports of findings and recommendations; and making presentations to the Board of Retirement regarding the disposition of cases.

The Communications Division is responsible for developing and coordinating information for members and plan sponsors through publications, newsletters, seminars and publishing content to the website.

Internal Operations Department

This department is comprised of the following divisions: Finance, Information Technology, and Administrative Services.

The Finance Division is responsible for all of the financial records and reports of OCERS. This includes the preparation of the Comprehensive Annual Financial Report, monthly and quarterly financial statements and the annual operating budget. The Finance Division also maintains OCERS' system of internal controls; processes and accounts for retirement payroll and refunds of contributions and interest to members; collects and accounts for employers' and members' contributions; reconciles investment portfolios; and pays costs incurred for goods received and services rendered.

The Information Technology Division is responsible for OCERS' network systems, personal computers, website and databases, as well as providing programming and technical support to our Benefits Administration System. In addition, this division is responsible for overseeing cyber security, business continuity/disaster recovery and administering all audio/visual services.

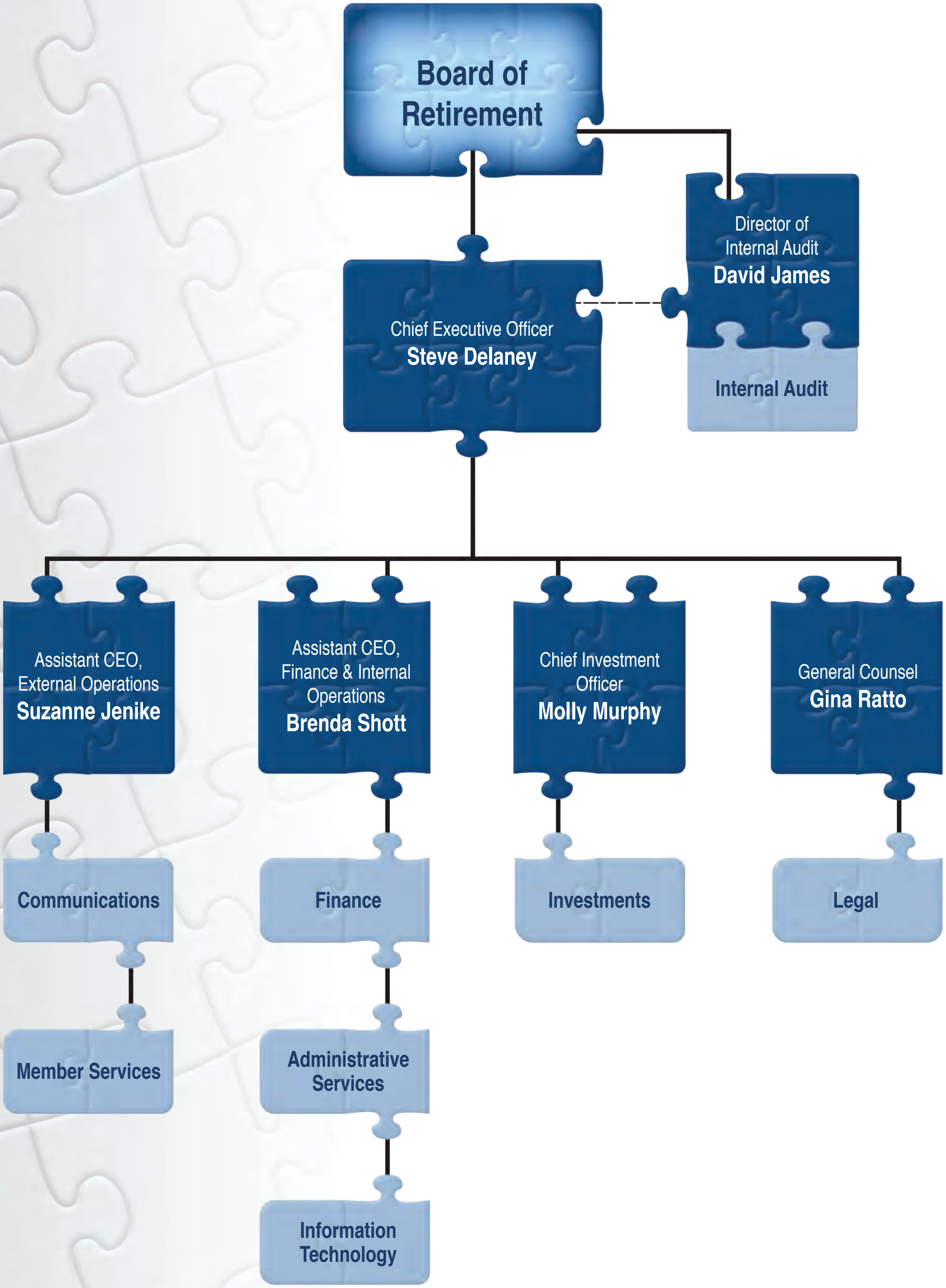
The Administrative Services Division is responsible for providing contract administration, risk management, purchasing, headquarters building administration, human resources and labor relations functions of OCERS.

Legal Department

This department provides legal advice and representation to the Board of Retirement and OCERS on a wide variety of issues. Among other things, this includes issues involving pension benefits, disability retirements, investments, legislation and vendor contracts.

Administrative Organization Chart

As of December 31, 2017



List of Professional Consultants

As of December 31, 2017

Actuary
The Segal Company

Investment Consultant
Meketa Investment Group

Risk Reporting & Portfolio Review Services
Pension Consulting Alliance

Operational Due Diligence Service Providers
Aksia, LLC
Laven Partners US LLC

Independent Auditor
Macias Gini & O'Connell LLP

Investment Counsel
Foley and Lardner, LLP

Fiduciary Counsel
Reed Smith, LLP

Tax Counsel
Hanson Bridgett, LLP

Custodian
State Street Bank and Trust Company

Note: List of Investment Managers is located on page 89 of the Investment Section of this report.

Certificate of Achievement for Excellence in Financial Reporting

2012

2013

2014

2015

2016

GOVERNMENT FINANCE OFFICERS ASSOCIATION

Certificate of Achievement
for Excellence
in Financial Reporting

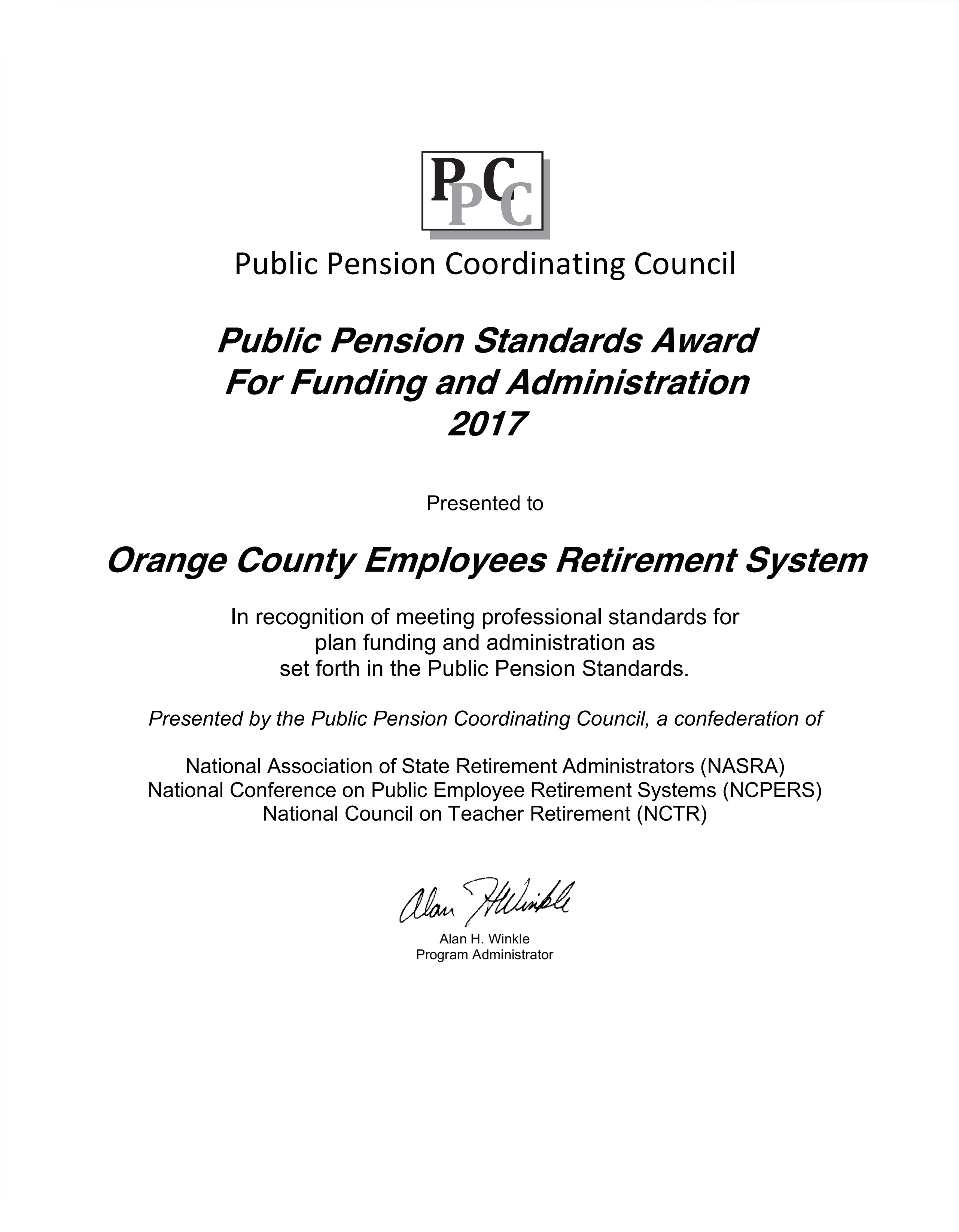
Presented to

Orange County
Employees Retirement System
California

Christopher P. Morrill

Executive Director / CEO

Public Pension Standards Award for Funding and Administration



PPCC

Public Pension Coordinating Council

Public Pension Standards Award For Funding and Administration
2017

Presented to

Orange County Employees Retirement System

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

Presented by the Public Pension Coordinating Council, a confederation of

National Association of State Retirement Administrators (NASRA)
National Conference on Public Employee Retirement Systems (NCPERS)
National Council on Teacher Retirement (NCTR)

Alan H Winkle

Alan H. Winkle
Program Administrator

Section II

Financial

Social Services Agency (SSA)

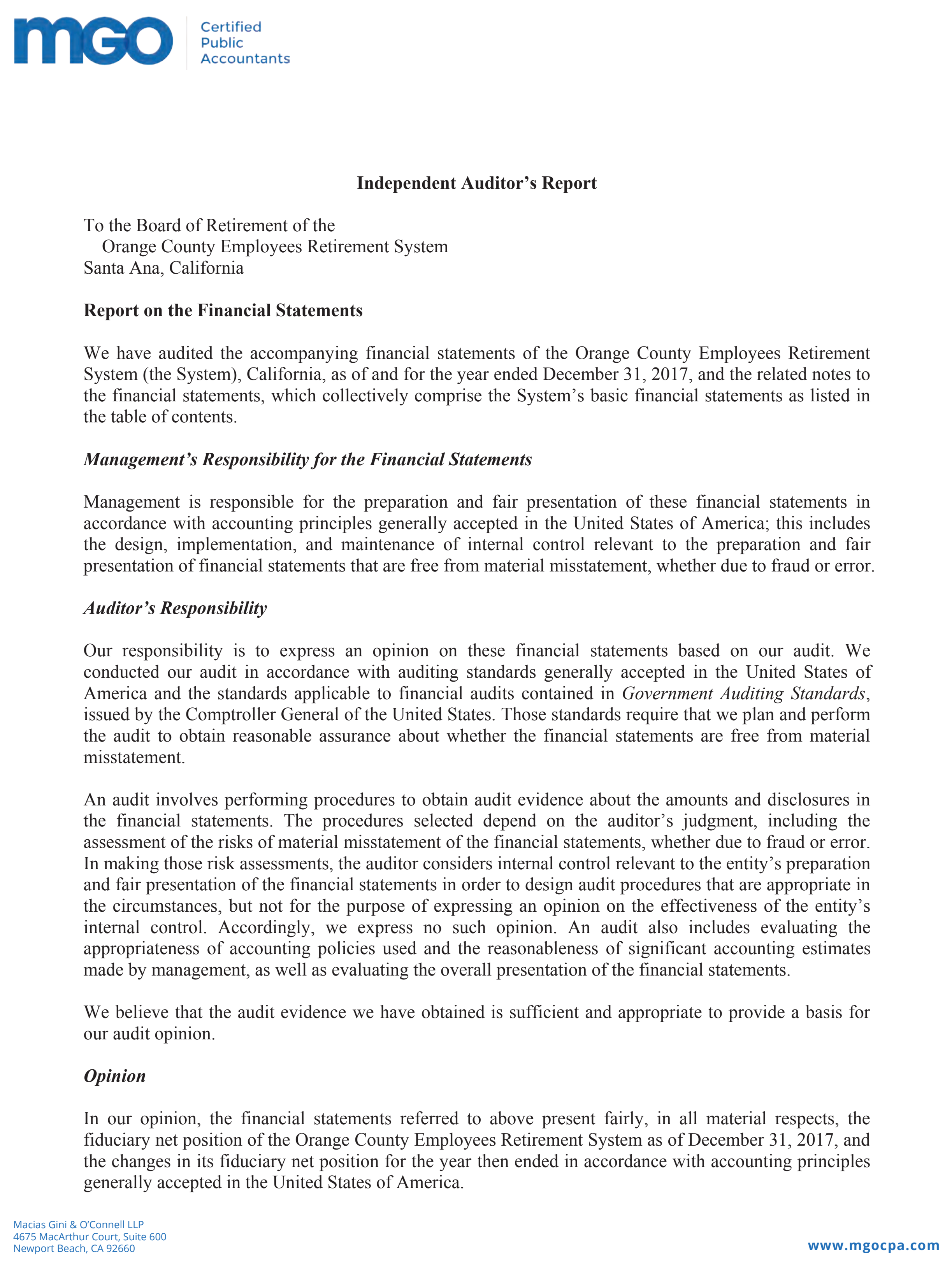
The Orange County Social Services Agency administers Federal, State, and County social services programs to provide services that impact the health, safety and well-being of children, adults with disabilities, seniors and families within our community. Children and family services include adoption and foster care services; prevention and intervention services to remedy conditions that may result in abuse and neglect; food and health services, such as Medi-Cal and CalFresh; and CalWORKs, which provides cash assistance to families with children, as well as job services and training. Other services administered by SSA include a wide range of senior services including needs assessments; assistance with locating in-home health services; and providing adult protective services to prevent or remedy neglect or abuse for those in need.

ORANGE COUNTY

OCERS

EMPLOYEES RETIREMENT SYSTEM

Independent Auditor's Report



MGO
Certified
Public
Accountants

Independent Auditor's Report

To the Board of Retirement of the
Orange County Employees Retirement System
Santa Ana, California

Report on the Financial Statements

We have audited the accompanying financial statements of the Orange County Employees Retirement System (the System), California, as of and for the year ended December 31, 2017, and the related notes to the financial statements, which collectively comprise the System'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 audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from 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 misstatement 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 fiduciary net position of the Orange County Employees Retirement System as of December 31, 2017, and the changes in its fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Macias Gini & O'Connell LLP
4675 MacArthur Court, Suite 600
Newport Beach, CA 92660
www.mgocpa.com

Emphasis of Matter

As discussed in Note 8 to the basic financial statements, based on the actuarial valuation of the pension plan's total pension liability as of December 31, 2016, rolled forward to December 31, 2017, the total pension liability of participating employers exceeded the pension plan's fiduciary net position by $5.0 billion. The actuarial valuation is very sensitive to the underlying assumptions, including a discount rate of 7.0 percent, which represents the long-term expected rate of return on investments.

Our opinion is not modified with respect to this matter.

Other Matters

Prior-Year Comparative Information

The financial statements include partial prior-year comparative information. Such information does not include all of the information required to constitute a presentation in conformity with accounting principles generally accepted in the United States of America. Accordingly, such information should be read in conjunction with the System's financial statements for the year ended December 31, 2016, from which such partial information was derived.

We have previously audited the System's 2016 financial statements, and we expressed an unmodified opinion on the financial statements in our report dated June 1, 2017. In our opinion, the partial comparative information presented herein as of and for the year ended December 31, 2016, is consistent, in all material respects, with the audited financial statements from which it has been derived.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, the Schedule of Changes in Net Pension Liability of Participating Employers, Schedule of Investment Returns, Schedule of Employer Contributions, and Notes to the Required Supplementary Information, 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 audit 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 audit was conducted for the purpose of forming an opinion on the System's basic financial statements. The other supplementary information, introductory, 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 supplementary information is the responsibility of management and was derived from and relates 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 audit 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 basic 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 information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The introductory, investment, actuarial, and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we 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 June 7, 2018, on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely 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 effectiveness of the System's 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 System's internal control over financial reporting and compliance.

Macias Gini É O'Connell LLP

Newport Beach, California
June 7, 2018

Management's Discussion and Analysis

The Management's Discussion and Analysis (MD&A) of the Orange County Employees Retirement System (OCERS or System) presents the financial performance and provides a summary of OCERS' financial position and activities as of and for the year ended December 31, 2017. The narrative overview and analysis is presented in conjunction with the Chief Executive Officer's Letter of Transmittal, included in Section I – Introductory to this Comprehensive Annual Financial Report. The MD&A should be read in conjunction with OCERS' Basic Financial Statements as presented in this report. Amounts in this section have been grouped together to facilitate readability.

OCERS administers the OCERS pension plan—a cost-sharing multiple-employer defined benefit pension plan (the Plan) as well as acts as a trustee and custodian for retirement health benefit plan funds that are sponsored by participating employers. OCERS' financial information is comprised of four fiduciary funds: a defined benefit pension trust fund, two other post-employment benefit (OPEB) trust funds for retiree medical plans and an agency fund.

Financial Highlights

- The net position restricted for pension and other post-employment benefits as of December 31, 2017, totaled $15.1 billion, an increase of $2.1 billion or 15.7% from the prior year. This was primarily due to positive returns on investments and contributions continuing to exceed total deductions.
- Total additions to fiduciary net position increased 47.4% from $2.0 billion in 2016 to $2.9 billion in 2017.
  - Net investment income increased significantly from a net investment income of $1.1 billion in 2016 to a net investment income of nearly $2.0 billion in 2017. The net year-to-date rate of return on investments on a fair value basis was approximately 14.51% in 2017 versus a net return of 8.52% in 2016.
  - Contributions received from employers and employees totaled $896.6 million in 2017, an increase of 3.0% compared to 2016 contributions received of $870.3 million.
- Total deductions from fiduciary net position increased $47.8 million from $769.6 million in 2016 to $817.4 million in 2017.
  - Member pension benefit payments increased by $45.8 million or 6.5% in 2017 from $704.0 million to $749.8 million.
  - The number of retired members and beneficiaries receiving a benefit payment increased 3.5% from 16,369 payees at the end of 2016 to 16,947 payees as of December 31, 2017.
  - The average annual benefit paid to retired members and beneficiaries during 2017 was $44,243, an increase of 2.9% over the average annual benefit payment of $43,005 in 2016.
- The net pension liability of participating employers as calculated in the December 31, 2017, Governmental Accounting Standards Board (GASB) Statement No. 67 Actuarial Valuation used for financial reporting purposes is nearly $5.0 billion, which as a percentage of covered payroll is 295.06%. The plan fiduciary net position of the pension trust fund of $14.8 billion as a percentage of the total pension liability of $19.8 billion is 74.93%.
- Based upon the most recent actuarial funding valuation dated as of December 31, 2016, the funding status for the pension plan, as measured by the ratio of the actuarial value of assets (which smooths market gains and losses over five years) to the actuarial value of accrued liabilities was 73.06% versus 70.58% if market gains and losses were recognized immediately.

Overview of the Financial Statements

The following discussion and analysis serve as an introduction and overview of the OCERS' Basic Financial Statements. The Basic Financial Statements and required disclosures are prepared in accordance with accounting principles and reporting guidelines as set forth by the Governmental Accounting Standards Board (GASB). These pronouncements require OCERS to make certain disclosures and to report using the full accrual method of accounting.

OCERS' Basic Financial Statements are comprised of the following:

Statement of Fiduciary Net Position

The Statement of Fiduciary Net Position presents the major categories of assets and liabilities and their related value as of year-end. The difference between assets and liabilities is reported as "Net Position Restricted for Pension and Other Post-Employment Benefits," representing funds available to pay future benefits to plan participants. The Statement of Fiduciary Net Position includes prior year-end total balances for comparative purposes. Increases and decreases in Net Position Restricted for Pension and Other Post-Employment Benefits, when analyzed over time, may serve as an indicator of whether OCERS' financial position is improving or deteriorating. Other factors, such as market conditions, should also be considered when measuring the overall financial health of the System.

The County of Orange (the County) and Orange County Fire Authority (OCFA) participate in irrevocable post-employment health care plan trusts (retiree medical plans) that are reported as other post-employment benefit trust funds in the Statement of Fiduciary Net Position as separate health care funds. OCERS serves as trustee for these trusts. Assets are commingled with pension trust assets for investment purposes and are used exclusively to pay health allowances. The County and OCFA have taken financial reporting responsibility of the retiree medical plans, including financial statement disclosures and required supplementary information regarding the retiree medical plans funded status and contributions, in accordance with GASB Statement No. 74, *Financial Reporting for Postemployment Benefits Plans Other than Pension Plans*.

The Orange County Transportation Authority has revocable trust assets held by OCERS in an investment capacity and are not commingled with those of the pension plan and health care plan trusts. The assets and offsetting liabilities are reported in the Statement of Fiduciary Net Position as an agency fund.

Statement of Changes in Fiduciary Net Position

The Statement of Changes in Fiduciary Net Position provides information about the financial activities during the reporting period that increased and decreased Net Position Restricted for Pension and Other Post-Employment Benefits. The trend of additions versus deductions to the Plan indicates the strength of OCERS' financial position over time. For comparative purposes, prior year-end total balances are also provided.

To distinguish the activities of the health care plan trusts from the pension plan, the health care plan trusts are also reported separately in the Statement of Changes in Fiduciary Net Position as health care funds.

Notes to the Basic Financial Statements

The Notes to the Basic Financial Statements are an integral part of the basic financial statements and provide additional information that is essential to acquire a full understanding of the information provided in the two statements discussed above. The notes include further discussion and details regarding OCERS' key policies, programs, investments and activities that occurred during the year.

Required Supplementary Information

The Required Supplementary Information (RSI) presents historical trend information related to the pension plan (the County and OCFA maintain the financial reporting responsibility of their respective retiree medical plans, so it is not included in OCERS' RSI schedules) reported in the Basic Financial Statements. The pension plan includes a schedule of changes in net pension liability, a schedule of money-weighted investment returns, a schedule of employer contributions and other required supplementary information as required by GASB Statement No. 67, *Financial Reporting for Pension Plans – an Amendment of GASB Statement No. 25*. The information contained in the pension plan schedules is based on the actuarial valuation prepared for the pension plan and includes additional actuarial information that contributes to the understanding of the changes in the net pension liability of participating employers in the pension plan as presented in the schedules. The actuarial information is based upon assumptions made regarding future events at the time the valuation was performed. Therefore, the amounts presented in the schedules are management's estimates. A summary of factors that affected the trends of the actuarial information is included in this section as well.

Other Supplementary Information

The Other Supplementary Information includes schedules pertaining to contributions by plan sponsors and members, OCERS' administrative expenses, investment expenses, professional services and a statement of changes in assets and liabilities for the OPEB agency fund.

Management's Discussion and Analysis

(continued)

Financial Analysis

Tables 1 and 2 compare and summarize OCERS' financial activity for the current and prior years.

Table 1 : Fiduciary Net Position

As of December 31, 2017 and 2016
(Dollars in Thousands)

	12/31/2017	12/31/2016	Increase / (Decrease)	Percentage Change
Assets				
Cash and Cash Equivalents	$ 498,112	$ 466,328	$ 31,784	6.8%
Securities Lending Collateral	194,196	168,896	25,300	15.0%
Receivables	393,499	180,475	213,024	118.0%
Investments at Fair Value	14,770,714	12,891,389	1,879,325	14.6%
Capital Assets, Net	20,670	22,620	(1,950)	-8.6%
Total Assets	**15,877,191**	**13,729,708**	**2,147,483**	**15.6%**
Liabilites				
Obligations Under Securities Lending Program	194,196	168,896	25,300	15.0%
Securities Purchased	198,610	161,150	37,460	23.2%
Other	348,436	321,811	26,625	8.3%
Total Liabilities	**741,242**	**651,857**	**89,385**	**13.7%**
Net Position Restricted for Pension and Other Post-Employment Benefits	**$ 15,135,949**	**$ 13,077,851**	**$ 2,058,098**	**15.7%**

As of December 31, 2017, OCERS has a net position of $15.1 billion restricted for pension and other post-employment benefits. Net position increased $2.1 billion, an increase of 15.7% over 2016. The increase in net position includes an increase in total assets of $2.1 billion and an increase in total liabilities of $89.4 million.

The increase in total assets is primarily attributed to an increase in fair value of investments, with additional increases in cash and cash equivalents, the security lending program and receivables at year end. The increase in total assets is slightly offset by a decrease in capital assets. Investments at fair value increased $1.9 billion primarily due to greater returns in 2017. Investments experienced strong returns in global public equity, private equity, and credit, of 26.3%, 14.1% and 9.1%, respectively. All investment categories experienced positive returns in 2017. Cash and cash equivalents increased $31.8 million due to timing of contributions and other receipts near year-end. Securities lending collateral increased $25.3 million due to an increase in lending activity at year-end in the securities lending program. Receivables increased $213.0 million from the prior year due to the timing of investments for unsettled trades, and other receivables related to year-end investment redemptions.

The increase in total liabilities of $89.4 million includes an increase in unsettled security purchases of $37.5 million, as well as an increase in the obligations under the securities lending program of $25.3 million, which is directly related to the increase in securities lending collateral as previously discussed. All other liabilities increased by $26.6 million and the majority of this increase, $22.0 million, represents an increase in unearned contributions due to larger prepaid employer contributions received for the 2017-2018 prepayment program compared to prior year's prepayment program. Also included in other liabilities are foreign currency forward contracts, retiree payroll payables and miscellaneous other liabilities.

Management's Discussion and Analysis

(continued)

Table 2 : Changes in Fiduciary Net Position

For the Years Ended December 31, 2017 and 2016
(Dollars in Thousands)

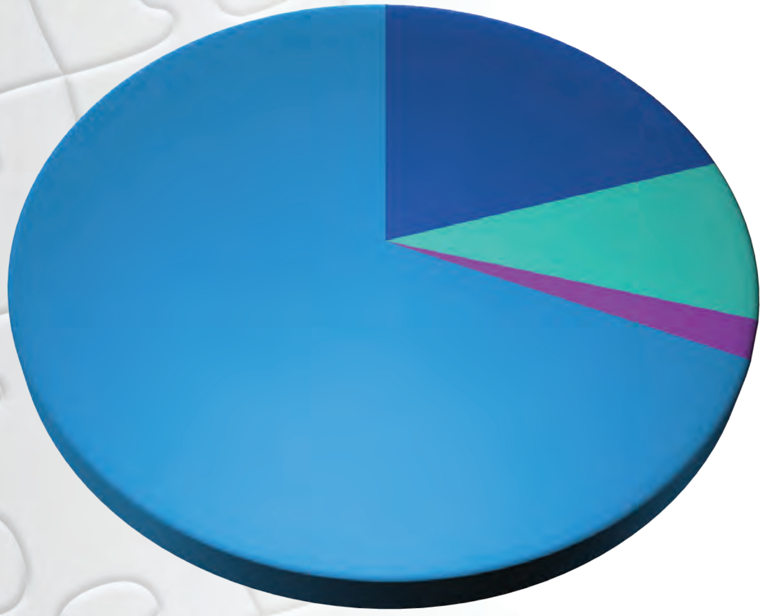
	12/31/2017	12/31/2016	Increase / (Decrease)	Percentage Change
Additions				
Employer Pension Contributions	$ 572,104	$ 567,196	$ 4,908	0.9%
Employer Health Care Contributions	62,244	44,825	17,419	38.9%
Employee Pension Contributions	262,294	258,297	3,997	1.5%
Net Investment Income/(Loss)	1,978,871	1,081,014	897,857	83.1%
Total Additions	**2,875,513**	**1,951,332**	**924,181**	**47.4%**
Deductions				
Participant Benefits - Pension	749,784	703,949	45,835	6.5%
Participant Benefits - Health Care	36,020	34,685	1,335	3.8%
Death Benefits	694	384	310	80.7%
Member Withdrawals and Refunds	13,866	13,643	223	1.6%
Administrative Expenses - Pension	17,002	16,870	132	0.8%
Administrative Expenses - Health Care	49	44	5	11.4%
Total Deductions	**817,415**	**769,575**	**47,840**	**6.2%**
Increase in Net Position Restricted for Pension and Other Post-Employment Benefits	2,058,098	1,181,757	876,341	74.2%
Net Position Restricted for Pension and Other Post-Employment Benefits				
Beginning of the Year	13,077,851	11,896,094		
End of the Year	**$ 15,135,949**	**$ 13,077,851**		

Management's Discussion and Analysis

(continued)

Additions to Fiduciary Net Position

The primary funding sources of pension benefits are the collection of participating employer and member contributions and earnings on investments, net of investment expenses. Additions to fiduciary net position increased 47.4% in 2017. Total additions for the year ended December 31, 2017, were $2.9 billion compared to $2.0 billion for the same period in 2016. The increase is comprised of an increase in total contributions of $26.3 million and an increase in investment income of $0.9 billion. Total employer and employee contributions continue to rise due to increases in the average employer and employee contribution rates and increases in employee salaries. The increase in investment income is attributed to higher appreciation in the fair value of investments and greater returns on the underlying investments. Overall market performance as of December 31, 2017, improved significantly over December 31, 2016, as all of the investment categories experienced positive returns, with the global public equity category experiencing the largest return at 26.28%. Overall net investment returns for the year ended December 31, 2017, were 14.51% compared to the prior year's return of 8.52%.

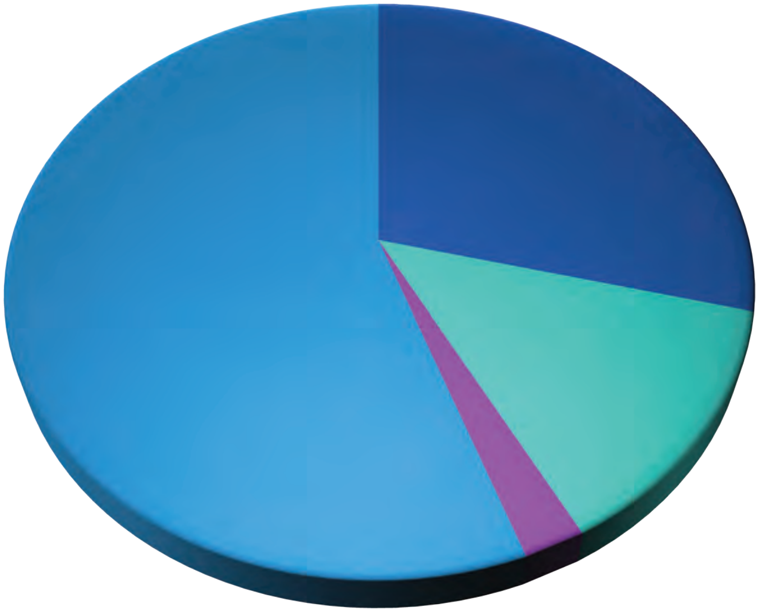


Additions year ended 12/31/2017

■	Net Investment Income	68.82%
■	Employer Pension Contributions	19.90%
■	Employee Pension Contributions	9.12%
■	Employer Health Care Contributions	2.16%

Additions year ended 12/31/2016

■	Net Investment Income	55.39%
■	Employer Pension Contributions	29.07%
■	Employee Pension Contributions	13.24%
■	Employer Health Care Contributions	2.30%

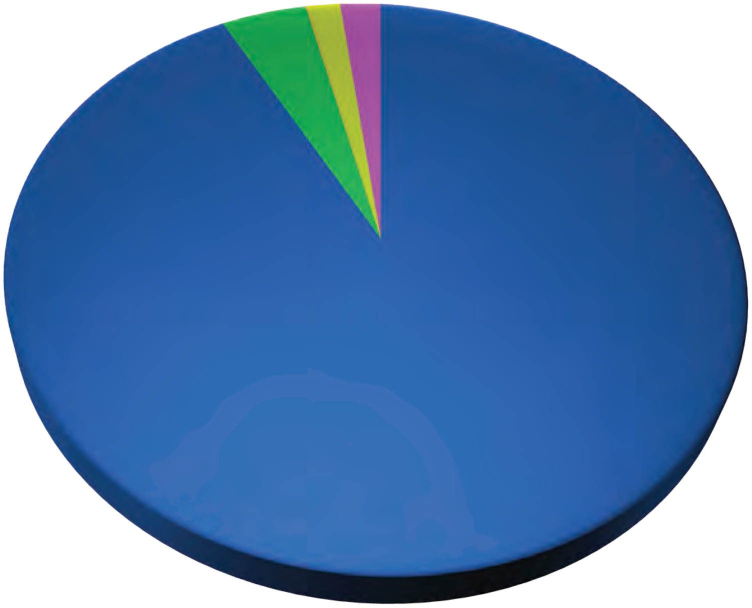


Management's Discussion and Analysis

(continued)

Deductions from Fiduciary Net Position

The costs associated with the System include payments of benefits to members and their beneficiaries, refunds of contributions to terminated members and the costs of administering the plan. Deductions from fiduciary net position increased $47.8 million or 6.2% compared to the prior year, primarily due to the continued and anticipated growth in member pension benefit payments, both in the total number of OCERS' retired members receiving a pension benefit and the average benefit received. Participant benefit payments for pension and health have increased by $45.8 million and $1.3 million, respectively. Total benefit recipients increased by 578, from 16,369 to 16,947. The average annual pension benefit increased from $43,005 to $44,243.

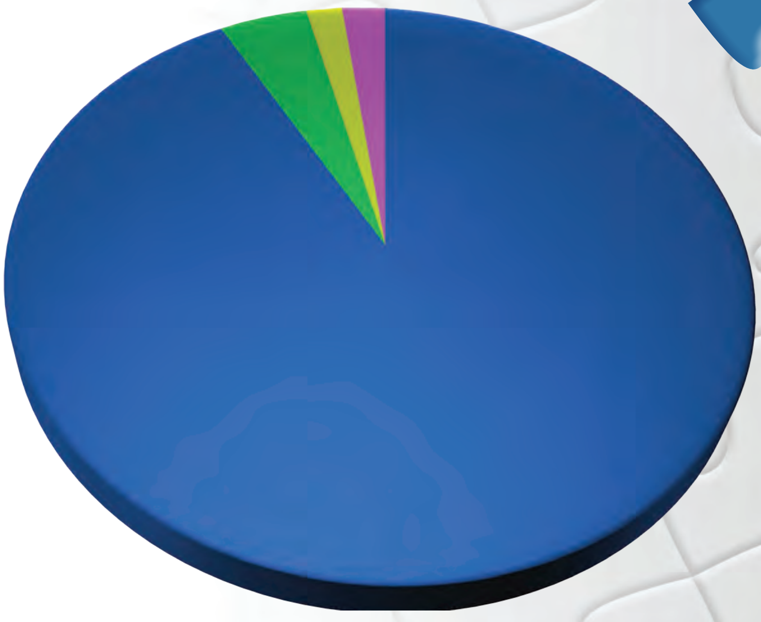


Deductions year ended 12/31/2017

🟦	Participant Benefits - Pension	91.73%
🟩	Participant Benefits - Health Care	4.41%
🟧	Death Benefits	0.08%
🟨	Member Withdrawals and Refunds	1.70%
🟪	Administrative Expenses - Pension	2.07%
⬛	Administrative Expenses - Health Care	0.01%

Deductions year ended 12/31/2016

🟦	Participant Benefits - Pension	91.47%
🟩	Participant Benefits - Health Care	4.51%
🟧	Death Benefits	0.05%
🟨	Member Withdrawals and Refunds	1.77%
🟪	Administrative Expenses - Pension	2.19%
⬛	Administrative Expenses - Health Care	0.01%



OCERS Membership

The table below provides comparative OCERS' membership data for the last two years.

Table 3 : Membership Data

As of December 31, 2017 and 2016

	12/31/2017	12/31/2016	Increase/ (Decrease)	Percentage Change
Active Members	21,721	21,746	(25)	-0.1%
Retired Members	16,947	16,369	578	3.5%
Deferred Members	5,803	5,370	433	8.1%
Total Membership	**44,471**	**43,485**	**986**	**2.3%**

Total OCERS' membership increased during 2017 with a net increase of 986 members. The number of active members decreased by 25 or -0.1% and the number of retirees increased by 578 or 3.5%, suggesting that members are leaving their employment for retirement or other opportunities at a higher rate than plan sponsors are hiring employees.

Actuarial Valuations

In order to determine whether Net Position Restricted for Pension Benefits will be sufficient to meet future obligations, a calculation of the actuarial funded status is required. An actuarial valuation includes an appraisal of both the assets available to pay future benefits and the liabilities of the System, which represent the actuarial present value of all future benefits expected to be paid for each member. The purpose of the valuation is to determine the amount of future contributions by the employees (members) and employers (plan sponsors), which will be required to pay all expected future benefits. OCERS utilizes an independent actuarial firm, The Segal Company (Segal), to prepare an annual valuation. The most recent Annual Actuarial Valuation as of December 31, 2016 is included in the Actuarial Section of this report, and contains a detailed discussion of the funding requirements. This valuation is used for funding purposes and establishing employer and employee contribution rates. For the year ended December 31, 2017, Segal prepared a Governmental Accounting Standards Board (GASB) Statement No. 67 Actuarial Valuation as of December 31, 2017, used for financial reporting purposes.

In order to prepare the valuations, the actuary must use several assumptions with regards to OCERS' members such as their life expectancy, projected salary increases over time, and the age at which members will retire. The actuary must also utilize assumptions with regards to how the assets will perform over time. A key assumption in this regard is the expected rate of return, which has remained at 7.25%, since the December 31, 2012 valuation. All assumptions used by the actuary are reviewed and adjusted, as required, on a triennial basis and adopted by the Board of Retirement. The most recent triennial study was adopted by the Board on October 16, 2017, for the three-year experience period ending December 31, 2016. Based on this triennial study, the following assumptions changes will be incorporated into the December 31, 2017 valuation: decrease to the expected rate of return from 7.25% to 7.00%; inflation lowered from 3.00% to 2.75%; active member payroll increases lowered from 3.50% to 3.25%; and projected salary increases for general members lowered from a range of 4.25% to 13.50% to a range of 4.25% to 12.25% and for safety members, the range was changed from 5.00% to 17.50% to 4.75% to 17.25%. In addition, mortality rates will be adjusted for after service retirement to reflect a generational approach for anticipating future mortality improvement, and the assumption remains that all general pre-retirement deaths and 90% of safety pre-retirement deaths are assumed to be non-service connected deaths.

The GASB 67 valuation provides the calculation of the employers' pension liability. In order to accommodate the annual reporting requirements of our plan sponsors in a timely manner, the valuation was prepared using the December 31, 2016 valuation as the basis for calculating the total pension liability (TPL) using the actuarial assumptions that the Board of Retirement adopted for the three-year experience study for the period ending December 31, 2016 and rolled forward to December 31, 2017. Based on this actuarial valuation, the TPL was $19.8 billion compared to a fiduciary net position of $14.8 billion, resulting in the employers' net pension liability (NPL) of nearly $5.0 billion and a fiduciary net position as a percentage of the TPL of 74.93%. The NPL as a percentage of covered payroll was 295.06%.

In the actuarial funding valuation for the pension plan as of December 31, 2016, the funding ratio of the valuation value of assets to actuarial accrued liabilities was 73.06%. The calculation of funding status takes into account OCERS' policy to smooth the impact of market volatility by spreading each year's gains or losses over five years. Using the market value of assets as of the valuation date, the funded status of OCERS' pension plan was 70.58% in 2016.

Management's Discussion and Analysis

(continued)

Investment and Economic Summary

The United States economy continued to strengthen throughout 2017. The labor market has continued to strengthen and economic activity has been rising at a solid rate. Gains in employment have reduced the unemployment rate from 4.7% at the end of 2016 to 4.1% at the end of 2017. The all items consumer price index increased by 2.1 percentage points, but overall inflation and inflation for items other than food and energy have continued to run below the targeted objective of 2%. The United States financial markets, the S&P, Nasdaq and Dow, all posted their best year since 2013. For the year, the S&P gained 19.4%, the Nasdaq rose 28.2% and the Dow added 25.1%. The Federal Open Market Committee (FOMC) raised the target for the federal funds rate by ¼ percentage point in March, June and December bringing the target to a range of 1¼ to 1½% as of December 2017 versus ½ to ¾% as of December 2016. As the United States unemployment rate continues to be at the lowest year-end rate since 2007, wage growth has increased 2.6% for the year ended December 2017. In addition to gains in employment, consumer spending and business fixed investment have shown solid economic improvement.

OCERS experienced a strong net investment return for 2017 at 14.51% after investment management fees, exceeding the actuarial assumed rate of return and outperforming the policy benchmark. As of December 31, 2017, the three-year and five-year returns after investment management fees were 7.47% and 7.58%, respectively. Regardless of fluctuations and uncertainty in the financial markets, OCERS continues to preserve a sound financial position to meet the obligations of the Plan participants and their beneficiaries. OCERS adopted a new asset allocation policy in 2017 with the goal of simplifying the investment portfolio and lowering investment management fees to better position the portfolio for the future. Major changes from the prior asset allocation include the divesting from the absolute return asset classification, which included direct hedge funds; creating a new asset class, risk mitigation; decreasing investment in diversified credit and emerging market debt; and increasing investment in the core fixed income, private equity and real asset investment classes.

Request for Financial Information

This Comprehensive Annual Financial Report is designed to provide the Board of Retirement, plan members, participating employers, taxpayers, investment managers and other interested parties with a general overview of OCERS' financial condition and to demonstrate OCERS' accountability for the funds under its stewardship.

Please address any questions about this report or requests for additional information to:

Orange County Employees Retirement System
2223 East Wellington Avenue, Suite 100
Santa Ana, CA 92701

Section II

Financial

Basic Financial Statements

Statement of Fiduciary Net Position

As of December 31, 2017
(with summarized comparative amounts as of December 31, 2016)
(Dollars in Thousands)

	Pension Trust Fund	Health Care Fund-County	Health Care Fund-OCFA	OPEB 115 Agency Fund	Total Funds	Comparative Totals 2016
Assets						
Cash and Short-Term Investments						
Cash and Cash Equivalents	$ 486,846	$ 9,576	$ 1,312	$ 378	$ 498,112	$ 466,328
Securities Lending Collateral	189,948	3,736	512	-	194,196	168,896
Total Cash and Short-Term Investments	676,794	13,312	1,824	378	692,308	635,224
Receivables						
Investment Income	13,727	270	37	-	14,034	16,210
Securities Sales	150,619	2,963	406	-	153,988	87,036
Contributions	21,361	-	-	-	21,361	19,206
Foreign Currency Forward Contracts	70	1	-	-	71	839
Other Receivables	199,581	3,926	538	-	204,045	57,184
Total Receivables	385,358	7,160	981	-	393,499	180,475
Investments at Fair Value						
Global Public Equity	5,989,530	117,816	16,135	10,625	6,134,106	4,996,519
Private Equity	1,315,803	25,882	3,545	-	1,345,230	1,095,351
Core Fixed Income	2,011,101	39,559	5,418	5,632	2,061,710	931,660
Credit	1,967,752	38,706	5,301	-	2,011,759	2,441,810
Real Assets	2,417,747	47,558	6,513	-	2,471,818	2,262,968
Risk Mitigation	727,422	14,309	1,960	-	743,691	356,345
Absolute Return	2,348	46	6	-	2,400	806,736
Total Investments at Fair Value	14,431,703	283,876	38,878	16,257	14,770,714	12,891,389
Capital Assets, Net	20,670	-	-	-	20,670	22,620
Total Assets	**15,514,525**	**304,348**	**41,683**	**16,635**	**15,877,191**	**13,729,708**
Liabilities						
Obligations Under Securities Lending Program	189,948	3,736	512	-	194,196	168,896
Securities Purchased	194,266	3,821	523	-	198,610	161,150
Unearned Contributions	244,552	-	-	-	244,552	222,524
Foreign Currency Forward Contracts	390	8	1	-	399	914
Retiree Payroll Payable	63,318	2,663	263	-	66,244	62,406
Other	20,156	396	54	-	20,606	21,273
Due to Employers	-	-	-	16,635	16,635	14,694
Total Liabilities	**712,630**	**10,624**	**1,353**	**16,635**	**741,242**	**651,857**
Net Position Restricted for Pension and Other Post-Employment Benefits	$ 14,801,895	$ 293,724	$ 40,330	$ -	$ 15,135,949	$ 13,077,851

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

Statement of Changes in Fiduciary Net Position

For the Year Ended December 31, 2017
(with summarized comparative amounts for the Year Ended December 31, 2016)
(Dollars in Thousands)

	Pension Trust Fund	Health Care Fund - County	Health Care Fund-OCFA	Total Funds	Comparative Totals 2016
Additions					
Contributions					
Employer	$ 572,104	$ 59,864	$ 2,380	$ 634,348	$ 612,021
Employee	262,294	-	-	262,294	258,297
Total Contributions	834,398	59,864	2,380	896,642	870,318
Investment Income					
Net Appreciation in Fair Value of Investments	1,808,500	31,545	4,769	1,844,814	938,390
Dividends, Interest, and Other Investment Income	208,901	4,100	555	213,556	223,890
Securities Lending Income					
Gross Earnings	3,498	69	9	3,576	1,895
Less: Borrower Rebates and Bank Charges	(1,888)	(37)	(5)	(1,930)	(668)
Net Securities Lending Income	1,610	32	4	1,646	1,227
Total Investment Income	2,019,011	35,677	5,328	2,060,016	1,163,507
Investment Fees and Expenses	(79,376)	(1,558)	(211)	(81,145)	(82,493)
Net Investment Income	1,939,635	34,119	5,117	1,978,871	1,081,014
Total Additions	**2,774,033**	**93,983**	**7,497**	**2,875,513**	**1,951,332**
Deductions					
Participant Benefits	749,784	32,042	3,978	785,804	738,634
Death Benefits	694	-	-	694	384
Member Withdrawals and Refunds	13,866	-	-	13,866	13,643
Administrative Expenses	17,002	22	27	17,051	16,914
Total Deductions	**781,346**	**32,064**	**4,005**	**817,415**	**769,575**
Net Increase	1,992,687	61,919	3,492	2,058,098	1,181,757
Net Position Restricted For Pension and Other Post-Employment Benefits, Beginning of Year	12,809,208	231,805	36,838	13,077,851	11,896,094
Ending Net Position Restricted For Pension and Other Post-Employment Benefits	**$ 14,801,895**	**$ 293,724**	**$ 40,330**	**$ 15,135,949**	**$ 13,077,851**

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

NOTE 1 : Plan Descriptions

The Orange County Employees Retirement System (OCERS or System) was established in 1945 under the provisions of the County Employees Retirement Law of 1937 (CERL). OCERS is governed by a ten-member Board of Retirement, nine voting members and one alternate member. Board membership consists of four members appointed by the County of Orange Board of Supervisors, five members elected by the members of the System, including an alternate, two by the general members, one by the safety members, and one by the retired members. Safety members elect the alternate member. The County of Orange Treasurer Tax-Collector, elected by the voters registered in the County, serves as an Ex-Officio member.

OCERS operates as a cost-sharing multiple-employer defined benefit pension plan for the County of Orange, Orange County Superior Court of California, City of San Juan Capistrano, and ten special districts: Orange County Cemetery District, Children and Families Commission of Orange County, Orange County Employees Retirement System, Orange County Fire Authority, Orange County In-Home Supportive Services Public Authority, Orange County Local Agency Formation Commission (LAFCO), Orange County Public Law Library, Orange County Sanitation District, Orange County Transportation Authority and Transportation Corridor Agencies. Capistrano Beach, Cypress Recreation & Parks District, Orange County Mosquito and Vector Control, City of Rancho Santa Margarita, the Orange County Department of Education and the University of California, Irvine Medical Center and Campus are no longer active plan sponsors, but retired members and their beneficiaries, as well as deferred members, remain in the System. OCERS is legally and fiscally independent of the County of Orange.

Pension Plan Membership

OCERS provides retirement, disability and death benefits to general and safety members. Safety membership includes those members serving in active law enforcement, fire suppression and as probation officers. General membership applies to all other occupations. Plan retirement benefits are tiered based upon date of OCERS membership. Tier 1 members were hired prior to September 21, 1979 and use their highest one-year average salary to determine their retirement allowance while Tier II members were hired on or after September 21, 1979 and use their highest three-year average salary to determine their retirement allowance. Member rate groups are determined by employer, bargaining unit, and benefit plan (a description of the benefit plans can be found under Member Retirement Benefits). The benefit plan represents the benefit formula and tier that will be used in calculating a retirement benefit. All regular employees scheduled to work 20 hours or more per week become members of the plan upon commencing employment with one of OCERS' plan sponsors, with the exception of a provision adopted in 2014 that allows new members over the age of 60 to opt out of the plan if their employer has implemented the provision. Active members are categorized as vested in the table below upon accumulating five years of accredited service or attaining the age of 70. Additional information regarding the pension plan's benefit structure is included in the Summary Plan Description that is available on the web at **www.ocers.org/member_active/spd.htm**.

The following table is a summary of OCERS' general and safety membership as of December 31, 2017, consisting of active members, retired members or their beneficiaries, and deferred members who have terminated, but are not yet receiving benefits (further information regarding benefit eligibility for deferred members is described under the Deferred Members Benefits section):

NOTE 1 : Plan Descriptions (continued)

OCERS Membership (General Members)

As of December 31, 2017

	Rate Group	Benefit Plan	Tier	Active Vested	Active Non-Vested	Retired Members & Beneficiaries	Deferred Members	Total
	1	A	I	2	-	374	1	377
	1	B	II	805	21	386	294	1,506
	1	U	II-PEPRA	2	725	-	201	928
Rate Group 1 Total				809	746	760	496	2,811
	2	A	I	-	-	3,180	14	3,194
	2	B	II	-	-	1,936	757	2,693
	2	I	I	40	-	1,132	-	1,172
	2	J	II	9,956	183	4,829	2,343	17,311
	2	P	II	163	32	3	86	284
	2	S	II	6	11	-	4	21
	2	T	II-PEPRA	36	3,489	2	694	4,221
	2	U	II-PEPRA	2	183	-	30	215
Rate Group 2 Total				10,203	3,898	11,082	3,928	29,111
	3	A	I	-	-	87	1	88
	3	B	II	40	18	63	36	157
	3	G	I	1	-	29	-	30
	3	H	II	376	-	280	56	712
	3	U	II-PEPRA	2	152	-	19	173
Rate Group 3 Total				419	170	459	112	1,160
	4	H	II	-	-	1	-	1
Rate Group 4 Total				-	-	1	-	1
	5	A	I	10	-	378	4	392
	5	B	II	1,003	134	950	532	2,619
	5	U	II-PEPRA	-	165	-	48	213
Rate Group 5 Total				1,013	299	1,328	584	3,224
	9	A	I	-	-	4	-	4
	9	B	II	-	-	10	11	21
	9	N	II	33	2	33	44	112
	9	U	II-PEPRA	-	29	1	6	36
Rate Group 9 Total				33	31	48	61	173
	10	A	I	-	-	8	-	8
	10	B	II	-	-	40	9	49
	10	I	I	-	-	16	-	16
	10	J	II	145	1	114	81	341
	10	N	II	12	22	1	11	46
	10	U	II-PEPRA	1	100	-	53	154
Rate Group 10 Total				158	123	179	154	614
	11	A	I	-	-	4	-	4
	11	B	II	-	-	3	-	3
	11	N	II	18	-	2	2	22
	11	U	II-PEPRA	-	7	-	-	7
Rate Group 11 Total				18	7	9	2	36
	12	A	I	-	-	2	-	2
	12	B	II	-	-	3	2	5
	12	H	II	13	-	6	2	21
	12	U	II-PEPRA	-	1	-	-	1
Rate Group 12 Total				13	1	11	4	29
Total General Members				12,666	5,275	13,877	5,341	37,159

NOTE 1 : Plan Descriptions (continued)

OCERS Membership (Safety Members)

As of December 31, 2017

	Rate Group	Benefit Plan	Tier	Active Vested	Active Non-Vested	Retired Members & Beneficiaries	Deferred Members	Total
	6	C	I	-	-	89	-	89
	6	D	II	-	-	45	35	80
	6	E	I	1	-	44	-	45
	6	F	II	740	2	182	180	1,104
	6	V	II-PEPRA	-	20	-	5	25
Rate Group 6 Total				741	22	360	220	1,343
	7	C	I	-	-	487	-	487
	7	D	II	-	-	247	44	291
	7	E	I	-	-	283	-	283
	7	F	II	1,223	-	1,015	93	2,331
	7	R	II	367	24	2	22	415
	7	V	II-PEPRA	-	396	-	16	412
Rate Group 7 Total				1,590	420	2,034	175	4,219
	8	C	I	-	-	27	-	27
	8	D	II	-	-	72	5	77
	8	E	I	-	-	17	-	17
	8	F	II	750	4	559	43	1,356
	8	R	II	7	87	-	3	97
	8	V	II-PEPRA	1	158	1	16	176
Rate Group 8 Total				758	249	676	67	1,750
Total Safety Members				**3,089**	**691**	**3,070**	**462**	**7,312**
Grand Total				**15,755**	**5,966**	**16,947**	**5,803**	**44,471**

Member Retirement Benefits

Members are entitled to receive a retirement allowance with ten or more years of service credit beginning at age 50 (5 years of service and age 52 for General Public Employees Pension Reform Act (PEPRA) plans and 5 years of service and age 50 for Safety PEPRA, for all plans except those identified as PEPRA compliant), at any age with thirty years of service credit (twenty years of service credit for safety members), or if a part-time employee at age 55 or older with five or more years of service credit and at least ten years of active employment with a sponsoring agency covered by OCERS. Members attaining age 70 are eligible to retire regardless of credited service. Benefits received are determined by plan formula, age, years of service and final average salary (see Section II, Notes to the Required Supplementary Information, for any changes in benefit terms). Member rate groups and benefit plans as of December 31, 2017, are as follows:

NOTE 1 : Plan Descriptions (continued)

Rate Groups and Benefit Plans

As of December 31, 2017

Rate Group	Plan Type	Benefit Plan	Benefit Formula per Year of Service	Sponsoring Agency
1	General	A	2.0% @ 57	County of Orange; OC In-Home Supportive Services Public Authority (OC Department of Education, UCI Medical Center and Campus, Capistrano Beach Sanitary District, Cypress Recreation & Parks District, and OC Mosquito and Vector Control District are no longer active plan sponsors)
		B	1.67% @ 57.5	
		U	2.5% @ 67 PEPRA	
2	General	A	2.0% @ 57	County of Orange; City of San Juan Capistrano; LAFCO; OCERS; Orange County Superior Court of California; and Children and Families Commission of Orange County
		B	1.67% @ 57.5	
		I	2.7% @ 55	
		J	2.7% @ 55	
		O	1.62% @ 65	
		P	1.62% @ 65	
		S	2.0% @ 57	
		T	1.62% @ 65 PEPRA	
		U	2.5% @ 67 PEPRA	
		W	1.62% @ 65 PEPRA	
3	General	A	2.0% @ 57	OC Sanitation District
		B	1.67% @ 57.5	
		G	2.5% @ 55	
		H	2.5% @ 55	
		U	2.5% @ 67 PEPRA	
4	General	H	2.5% @ 55	Rancho Santa Margarita (no longer an active plan sponsor)
5	General	A	2.0% @ 57	OC Transportation Authority
		B	1.67% @ 57.5	
		U	2.5% @ 67 PEPRA	
6	Safety	C	2.0% @ 50	County of Orange (Probation)
		D	2.0% @ 50	
		E	3.0% @ 50	
		F	3.0 % @ 50	
		V	2.7% @ 57 PEPRA	
7	Safety	C	2.0% @ 50	County of Orange (Law Enforcement)
		D	2.0% @ 50	
		E	3.0% @ 50	
		F	3.0% @ 50	
		Q	3.0% @ 55	
		R	3.0% @ 55	
		V	2.7% @ 57 PEPRA	
8	Safety	C	2.0% @ 50	OC Fire Authority
		D	2.0% @ 50	
		E	3.0% @ 50	
		F	3.0% @ 50	
		Q	3.0% @ 55	
		R	3.0% @ 55	
		V	2.7% @ 57 PEPRA	

Notes to the Basic Financial Statements

NOTE 1 : Plan Descriptions (continued)

Rate Groups and Benefit Plans (continued)

As of December 31, 2017

Rate Group	Plan Type	Benefit Plan	Benefit Formula per Year of Service	Sponsoring Agency
9	General	A	2.0% @ 57	Transportation Corridor Agencies
		B	1.67% @ 57.5	
		M	2.0% @ 55	
		N	2.0% @ 55	
		U	2.5% @ 67 PEPRA	
10	General	A	2.0% @ 57	OC Fire Authority
		B	1.67% @ 57.5	
		I	2.7% @ 55	
		J	2.7% @ 55	
		M	2.0% @ 55	
		N	2.0% @ 55	
		U	2.5% @ 67 PEPRA	
11	General	A	2.0% @ 57	OC Cemetery District
		B	1.67% @ 57.5	
		M	2.0% @ 55	
		N	2.0% @ 55	
		U	2.5% @ 67 PEPRA	
12	General	A	2.0% @ 57	OC Law Library
		B	1.67% @ 57.5	
		G	2.5% @ 55	
		H	2.5% @ 55	
		U	2.5% @ 67 PEPRA	

Public Employees Pension Reform Act (PEPRA)

During 2012, the Public Employees Pension Reform Act (PEPRA) was signed into law, resulting in the creation of three new benefit formulas for employees entering OCERS on or after January 1, 2013: 1.62% @ 65 PEPRA - General; 2.5% @ 67 PEPRA - General; and 2.7% @ 57 PEPRA - Safety. New plan provisions include a cap on pensionable compensation at 120% of the social security taxable wage base limit, three year final average salary, and new cost-sharing requirements by members to pay at least 50% of the total normal cost of the plan.

Deferred Member Benefits

If a member terminates employment with a participating plan sponsor, the member is entitled to withdraw the employee contributions made, together with accumulated interest, unless the member enters a reciprocal retirement system within 180 days and leaves their accumulated contributions on deposit with OCERS and receives a deferred retirement allowance when eligible. There are different deferred retirement eligibility requirements for members with less than five years of service when terminating and leaving funds on deposit. It is possible for these members to earn a deferred retirement allowance upon attaining the age of 70, or upon accumulating reciprocal service. Members who terminate employment with a participating plan sponsor, and defer with five or more years of service may become eligible for a service retirement allowance when they would have accrued ten years of service and attain the age of 50 or greater (5 years of service and age 52 for PEPRA).

Disability Benefits

Members found by the Board of Retirement to be permanently incapacitated from the performance of their job are eligible for disability retirement benefits. A disability retirement benefit may either be service-connected or non-service-connected. Members applying for non-service-connected disability must have five or more years of eligible service credit. There are no service credit requirements for members applying for service-connected disability benefits, but the disabling condition must be a result of injury or disease arising out of or in the course of the member's employment.

NOTE 1 : Plan Descriptions (continued)

Death Benefits

Death benefits are payable to eligible beneficiaries of OCERS members. Eligible beneficiaries of retired members may receive a percentage of a deceased member's retirement allowance based upon the retirement option selected by the member at the time of retirement. The beneficiary of a retired member will also receive a $1,000 burial benefit.

Survivor benefits for members who die prior to retirement are dependent upon a number of factors including whether or not the member was eligible for a service retirement or disability retirement at the time of death, and whether the death was job related. The eligible beneficiary of a member who is not eligible for service retirement or disability retirement is eligible to receive the member's accumulated contributions plus one month's salary for each year of creditable service, subject to a maximum of six month's salary. The eligible beneficiary of a member who is entitled to receive a service retirement or disability retirement, in lieu of the benefit described above, may elect to receive a monthly retirement allowance equal to 60% of the monthly allowance the member would have received for a non-service connected disability as of the day after the date of death, or a monthly allowance equal to the higher of 50% of the member's monthly compensation and service retirement allowance if the death was found to be service-connected.

Survivor benefits for deferred members (with no reciprocity) consist of a refund to eligible beneficiaries of all contributions and interest accumulated by the member as of the date of death.

Cost-of-Living Adjustments (COLA)

Retired member monthly allowances will be adjusted annually in accordance with changes in the cost-of-living, as determined by the average annual change in the Consumer Price Index (CPI) for the prior calendar year. The cost-of-living adjustment is limited to a maximum increase or decrease of three percent per year as established by the Board of Retirement. The 2017 cost-of-living adjustment ranged from 2% to 3% based on the date benefit recipients began receiving benefits.

STAR COLA

Retired members and eligible beneficiaries who have lost more than 20% of their original retirement benefit's purchasing power due to inflation are eligible to receive the STAR COLA (Supplemental Targeted Adjustment for Retirees Cost-of-Living Adjustment). STAR COLA benefits are reviewed annually by the Board of Retirement and as of December 31, 2017, only those members that retired on or before April 1, 1980 are eligible to receive the STAR COLA benefit.

Post-Employment Health Care Plans

OCERS serves as trustee for the County of Orange (County) and Orange County Fire Authority (OCFA) post-employment health care plan trusts established under Internal Revenue Code section 401(h), which are reported as other post-employment benefit trust funds in OCERS basic financial statements. Health care assets for the 401(h) trusts are commingled with pension trust assets for investment purposes and are used exclusively to pay health allowances to eligible retired members of the County of Orange and participating special districts including OCERS and the OCFA.

In July 2007, the County of Orange established under Internal Revenue Code both a 115 trust and a 401(h) trust as funding sources of retiree health care benefits, including grants, for the County of Orange Retiree Medical Plan (the "Plan"). The County maintains control and custody of all the 115 trust assets, which acts as a conduit for collecting contributions and passing them through to the 401(h) trust at their discretion, as well as distributing lump sum health care grant payments as part of a termination program that is being phased-out. OCERS maintains custody of the assets in the 401(h) trust and pays all primary benefits of the Plan as directed by the County. The County has evaluated the structure of its plan and related roles and responsibilities and has determined that the County is the plan administrator. Therefore, the County has taken financial reporting responsibility of the plan including financial statement disclosures and required supplementary information regarding the plan's funded status and contributions, in accordance with GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other than Pension Plans*. A publicly available financial report can be obtained from the County of Orange at 12 Civic Center Plaza, Santa Ana, California 92702 or their website at **http://ac.ocgov.com**.

In order to be eligible to receive the County of Orange Retiree Medical Grant (Grant) upon retirement, the employee must have completed at least ten years of continuous County or participating special districts service (although exceptions for disability retirements exist), be enrolled in a County sponsored health plan and/or Medicare, qualify as a retiree as defined by the pension plan and be able to receive a monthly benefit payment from OCERS. To qualify as a retiree as defined by the Plan, the employee upon retirement must be at least 50 years of age with a minimum of 10 years of service or have at least 20 years of service for a safety member of OCERS or at least 30 years of service for a general member of OCERS.

Employees represented by the American Federation of State, County and Municipal Employees (AFSCME) who were employed on or after September 30, 2005 are not eligible for the Grant. Employees represented by the Association of Orange County Deputy Sheriffs (AOCDS) who were hired on or after October 12, 2007 are not eligible for the Grant or lump sum payment. Law enforcement management employees who were hired on or after June 19, 2009 are not eligible for the Grant.

NOTE 1 : Plan Descriptions (continued)

The monthly Grant amount is determined by a formula that multiplies a base number by the number of years of qualifying County employment up to a maximum of 25 years. The base number for calendar year 2017 is $22.09 per year of County service, and the maximum monthly Grant is $552.25. The amount of the Grant is netted against the monthly health plan premium and/or reimburses Medicare premiums paid by the retiree for retiree and dependent coverage with the retiree obligated to pay the remaining balance. Any Grant in excess of the monthly health plan and/or Medicare premium payable is forfeited.

The Grant is reduced by 50% once the retiree becomes Medicare A and B eligible. Retirees who were age 65 and/or Medicare A and B eligible on the effective date are not subject to the Medicare reduction. The Grant is also reduced by 7.5% for each year of age prior to age 60 and increased by 7.5% for each year of age after age 60 up to age 70 for employees retiring after the effective date. The effective date varies by labor agreement. Safety employees and disability retirements are exempt from the age adjustment. The base number for the Grant is adjusted annually based on a formula defined in the Plan document with a maximum increase/decrease of 3%. Surviving dependents of a deceased employee or retiree eligible for the Grant are entitled to receive 50% of the Grant that the employee/retiree was eligible to receive.

AFSCME employees are not subject to the Medicare reduction or age adjustment. In addition, the base number for the Grant is adjusted annually with a maximum increase/decrease of 5%. The base number for calendar year 2017 is $26.03 per year of County service, and the maximum monthly Grant is $650.75.

As trustee of OCFA's 401(h) OPEB trust fund, the sole source of funding for OCFA's post-employment health care plan, OCFA has evaluated the structure of its plan and related roles and responsibilities and has determined that OCFA is the plan administrator. Therefore, OCFA has taken financial reporting responsibility of the Plan including financial statement disclosures and required supplementary information regarding the plan's funded status and contributions, in accordance with GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other than Pension Plans*. A publicly available financial report can be obtained from the Orange County Fire Authority at 1 Fire Authority, Irvine, California 92602 or their website at http://ocfa.org.

All OCFA retirees and full-time employees hired prior to January 1, 2007, are eligible to participate in the OCFA health care plan. Eligible employees who are credited with at least one year of service are eligible to receive plan benefits upon retirement. Participants must be covered under a qualified health plan, Medicare or a recognized health insurance plan. In 2017, retired OCFA members received $25.50 per year of creditable service, with a maximum monthly benefit of $637.50 based upon 25 or more years of creditable service.

Assets are allocated on the Statement of Fiduciary Net Position between the pension plan and the two 401(h) health care trusts based upon pro-rata shares after balances and transactions specific to the respective trusts are assigned. Contributions and benefit payment information for the pension plan and individual health care trusts are readily identified; however, investment income must be allocated and is based upon the individual health care trusts' pro-rata share of total fund assets.

In addition to serving as Trustee for the two 401(h) health care trusts, OCERS also provides investment advisory services to the Orange County Transportation Authority (OCTA) health care plan pursuant to an agreement established in accordance with Internal Revenue Code section 115 (115 Plan). Investments in the 115 Plan are not commingled with those of the pension plan and 401(h) plan trusts, but rather are invested in separately managed index funds.

An Agency Fund is used to account for OCTA's 115 Plan assets held by OCERS in an investment capacity with the revocable trust assets reported being offset by a liability for the resources held on behalf of OCTA. Additional information regarding the OCTA 115 Plan is available by contacting OCTA at 550 S. Main Street, Orange, California 92868 or their website at **http://www.octa.net**.

NOTE 2 : Summary of Significant Accounting Policies

Basis of Accounting

The accompanying financial statements have been prepared on the accrual basis of accounting and in accordance with accounting principles generally accepted in the United States of America (GAAP). Employee and employer contributions are recognized in the period in which contributions are due pursuant to legal requirements, and benefits and refunds are recognized when currently due and payable in accordance with plan terms. Unearned contributions represent prepaid employer contributions that will be recognized as an addition to plan net position in future periods. Investment income is recognized as revenue when earned. The net appreciation/(depreciation) in the fair value of investments is recorded as an increase/(decrease) to investment income based upon investment valuations, which includes both realized and unrealized gains and losses on investments.

Investment Policy and Valuation

State Street Bank and Trust (State Street) maintains custody of the majority of OCERS' investments held as of December 31, 2017. The acquisition of investments is authorized by state statute and OCERS' Investment Policy Statement (refer to Note 3 - Investments for further information). The allocation of investment assets is approved by OCERS' Board of Retirement, as outlined in the Investment Policy Statement, and System assets are invested solely for the benefit of plan participants and beneficiaries while attempting to minimize employer contributions and investment and administration costs. The Investment Policy Statement calls for an asset allocation plan that seeks to optimize long-term returns for the level of risk that the Board of Retirement considers appropriate. The current asset allocation adopted by the Board of Retirement as of December 31, 2017, is detailed on page 59 and in Section III - Investments. The Board of Retirement conducts a periodic review of the asset allocation plan to maintain an optimal allocation, and may also revise the asset allocation in response to significantly changing market conditions that may affect valuations and forward-looking expected returns of asset classes.

Plan investments consist of global public equity securities, core fixed income, real assets, credit, risk mitigation, absolute return strategies and private equity. Investments are reported at fair value, in accordance with Governmental Accounting Standards Board (GASB) Statement No. 72, *Fair Value Measurement and Application* (GASB 72) guidelines, and the overall valuation process and information sources by major asset classification are as follows:

Cash and Short-Term Investments

Cash and short-term investments represent funds held in operating accounts with State Street, Wells Fargo Bank and deposits held in a pooled account with the County of Orange Treasurer. Short-term investments are expected to be utilized within 30-90 days and are reported at fair value. OCERS is a participant in the County Treasurer's Orange County Investment Pool (OCIP). The OCIP is an external investment pool, is not rated, and is not registered with the Securities and Exchange Commission. The County Treasury Oversight Committee conducts OCIP oversight. Cash on deposit in the OCIP is stated at fair value. The OCIP values participant shares on an amortized cost basis during the year and adjusts to fair value at year-end. Deposits held in the OCIP are invested in the Orange County Money Market Fund and the Extended Fund. At December 31, 2017, the OCIP had a weighted average maturity of 236 days. The Orange County Money Market Fund is rated AAAm by Standard & Poor's. The Extended Fund is not rated. For further information regarding the OCIP, refer to the County of Orange Comprehensive Annual Financial Report.

Global Public Equity

The majority of OCERS' domestic, international and global securities, including those traded in emerging markets, consist of institutional funds that are valued based on the fair value of underlying investments using pricing models or other valuation methodologies that use pricing inputs that are either directly or indirectly observable on the valuation date for the securities or assets held in the fund. Other domestic, international and global securities are actively traded on major security exchanges, or over-the-counter. Fair value for exchange traded securities is determined as of the close of the trading date in the primary market or agreed upon exchange. The last known price is used for listed securities that did not trade on a particular date. Fair value is obtained from third-party pricing sources for securities traded over-the-counter.

Core Fixed Income

Actively traded debt instruments such as those securities issued by the U.S. Treasury, Federal Agencies and corporate issuers are reported at fair value as of the close of the trading date. Fair values of irregularly traded debt securities are obtained from pricing vendors who employ modeling techniques in determining security values. Inputs typically employed by pricing vendors include cash flows, maturity and credit rating.

Real Assets

OCERS invests in real assets, which include agriculture, commodities, energy, real estate and timber holdings. The fair value of commodities is determined by quoted market prices. Fair value for real estate, timber, energy and agriculture are determined based on independent appraisals and/or estimates made in good faith by the general partner or management.

NOTE 2 : Summary of Significant Accounting Policies (continued)

Real estate assets are in commingled real estate funds structured as either limited partnerships or trust funds. Properties held in commingled funds are based on the investment's net asset value (NAV) per share provided by the investment management firms/general partners, who perform regular internal appraisals and obtained at regular intervals independent third-party appraisals and are further supported by annual financial statements, which are audited by an independent third-party accountant. Primary determinants of fair value include market and property type specific information, which typically involve a degree of expert judgment.

Other Investments

OCERS invests in a variety of different credit strategies, alternative strategies which include private equity and absolute return, and risk mitigation investments.

Credit is a global allocation that includes a number of diverse fixed-income related strategies. It represents an allocation that is diversified by region, by credit quality, and by sources of risk. The general shared characteristics of these strategies are a degree of illiquidity, and a focus on current yield as a principal source of expected return. Hedging of market and individual security risks and diversified risk-controlled tactical trading may be permitted.

Credit is a combination of liquid and illiquid credit strategies and the fair value depends on the nature of the investment. For credit funds structured as partnerships, the fair values are based on NAV. Credit included in Level 2 of the fair value hierarchy may be estimated by the underlying managers in the absence of observable market data or the general partner may estimate the fair value in good faith using the best information available, which may incorporate the general partner's own assumptions. The liquid strategies comprised of multi-strategies are actively traded and are generally reported at fair value as of the close of the trading date. The illiquid strategies comprised of mortgages, direct lending and energy-based credit funds are valued initially at cost as an approximation of fair value with subsequent adjustments to fair value as determined by the general partner. The factors considered include readily available market quotes, earnings-multiple analysis using comparable companies or discounted cash flow analysis.

Private equity and absolute return are alternative strategies. The fair value of these alternative investments depends upon the nature of the investment and the underlying business. Typically, alternative investments are less liquid and subject to redemption restrictions. Fair value is determined either quarterly or semi-annually with valuations conducted by general partners, management and valuation specialists. Valuation techniques vary by investment type and involve expert judgment or estimates made in good faith using the best information available, including the general partner's or management's own assumptions. Investments that are reported at NAV are based on audited financial statements.

Risk mitigation investments include generally liquid investments with shorter redemption periods. Risk mitigation funds included in Level 2 are short-term investment funds and NAV is determined daily; for risk mitigation funds structured as partnerships, the fair values are based on NAV. Risk mitigation investments are uncorrelated or negatively correlated to economic growth assets.

NOTE 2 : Summary of Significant Accounting Policies (continued)

Capital Assets

Capital assets consist of furniture, equipment, intangible assets, including computer software, and building and improvements for the portion of the OCERS' headquarters building used for plan administration. Capital assets are defined by OCERS as assets with an initial, individual cost of more than $25,000 and an estimated useful life in excess of one year. Such assets are recorded at cost. Capital assets are depreciated using the straight-line depreciation method over their estimated useful lives, ranging from five to fifteen years for furniture, equipment and building improvements; three years for purchased computer software; and sixty years for buildings.

Capital Assets

As of December 31, 2017
(Dollars in Thousands)

Building and Improvements	$	5,196
Computer Software-V3 Pension System		21,853
Construction in Progress		1,117
Total Capital Assets (at cost)		28,166
Less: Accumulated Depreciation and Amortization		(7,496)
Total Capital Assets, Net of Depreciation and Amortization	**$**	**20,670**

GASB Statement No. 51, *Accounting and Financial Reporting for Intangible Assets*, requires OCERS to identify and capitalize costs incurred for the development of internally generated computer software, which is considered an intangible asset. According to GASB Statement No. 51, there are three stages in the development and installation of internally generated computer software: (1) Preliminary Project Stage, (2) Application and Development Stage, and (3) Post-Implementation/Operation Stage. All outlays related to the Application and Development Stage must be capitalized.

OCERS internally generated computer software, Pension Administration Software System (V3), was put into operation in 2016. At that point, all outlays were expensed and amortization of the asset began over an estimated useful life of ten years. Intangible assets are included as Capital Assets in the Statement of Fiduciary Net Position.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect reported amounts of net position. Actual results could differ from those estimates.

Comparative Totals

The basic financial statements include certain prior-year summarized comparative information in total but not at the level of detail required for a presentation in conformity with GAAP. Accordingly, such information should be read in conjunction with OCERS' financial statements for the year ended December 31, 2016, from which the summarized information was derived. In January 2017, the OCERS' Investment Committee adopted a new asset allocation policy. The new policy was structured to increase investments in the areas of private equity, core fixed income and real assets, while decreasing or eliminating investments in diversified credit and absolute return. The new asset allocation categories are reflected in the investments at fair value section in the Statement of Fiduciary Net Position and certain reclassifications have been made to amounts in the 2016 investments to conform with the 2017 financial statement presentation. These reclassifications had no material effect on net position as previously reported.

NOTE 3 : Investments

OCERS may invest, in accordance with state statutes, in any form or type of investment deemed prudent by the Board of Retirement. pension and 401(h) health care plan assets are restricted for the exclusive purposes of providing benefits to plan participants and defraying reasonable expenses of administering the plans. The Board of Retirement may invest, or delegate the authority to invest, the assets of the funds through the purchase, holding, or sale of any form or type of investment, financial instrument, or financial transaction. Agency fund assets, restricted pursuant to section 115 of the Internal Revenue Code, are separately invested in global public equity and core fixed income funds in accordance with the respective OCTA Third-Party Administrative and Investment Management Agreement.

Custodial Credit Risk

Custodial credit risk for deposits is the risk that in the event of a financial institution's failure, OCERS would not be able to recover its deposits. Deposits are exposed to custodial risk if they are not insured or not collateralized. As of December 31, 2017, OCERS' deposits with a financial institution are fully insured by Federal Deposit Insurance Corporation (FDIC) insurance up to $250,000 with the remaining balance exposed to custodial credit risk as it is not insured; however, the financial institution does collateralize the deposit of monies in excess of the FDIC insurance amount with eligible securities held by the pledging financial institution, but not in OCERS' name. Deposits held by OCERS' custodial bank are not exposed to custodial credit risk as they are held in a qualified pool trust, separate from the custodial bank assets.

For an investment, custodial credit risk is the risk that, in the event of a counterparty failure, OCERS will not be able to recover the value of its investments or collateral securities that are in the possession of counterparties. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in OCERS' name or by other qualified third-party administrator trust accounts.

OCERS' investments and collateral received through securities lending are not exposed to custodial credit risk because all securities are held by OCERS' custodial bank in OCERS' name or by other qualified third-party administrator trust accounts. OCERS does not maintain any general policies regarding custodial credit risk.

Credit Risk

By definition, credit risk measures the risk that an issuer or counterparty will not fulfill its obligations. Standard & Poor's defines investment grade as those fixed income securities with ratings between AAA and BBB. OCERS' investment policy permits, on an opportunistic basis, the investment in fixed income securities rated below investment grade. A rating of NR represents those securities that are not rated and NA represents those securities that are not subject to the GASB Statement No. 40 disclosure requirements. The credit ratings for individual OCERS' fixed income portfolios are monitored regularly.

As of December 31, 2017, the Standard & Poor's credit ratings of the OCERS' fixed income portfolio were as follows:

Credit Ratings

As of December 31, 2017
(Dollars in Thousands)

Rating	Pooled	International	U.S. Treasuries	Corporates	Agencies	Mortgages	Municipals	Asset-Backed	Swaps	Total
AAA	$ -	$ 438	$ -	$ -	$ -	$ -	$ -	$ 4,966	$ -	$ 5,404
AA	-	10,788	-	5,187	137,675	11,290	13,665	2,792	-	181,397
A	-	15,892	-	17,578	-	1,280	4,448	727	-	39,925
BBB	-	32,617	-	79,866	-	907	5,129	524	-	119,043
BB	-	25,258	-	48,517	-	3,251	-	4,115	-	81,141
B	-	7,291	-	62,347	-	-	2,380	4,401	-	76,419
CCC	-	-	-	33,038	-	6,195	-	9,332	-	48,565
CC	-	-	-	-	-	967	-	-	-	967
C	-	-	-	80	-	-	-	-	-	80
D	-	356	-	936	-	6,063	48	4,585	-	11,988
NR	1,225,918	16,626	-	10,272	-	22,152	2,356	7,992	2,810	1,288,126
NA	-	-	242,730	-	554	-	-	-	-	243,284
Total	**$ 1,225,918**	**$ 109,266**	**$ 242,730**	**$ 257,821**	**$ 138,229**	**$ 52,105**	**$ 28,026**	**$ 39,434**	**$ 2,810**	**$ 2,096,339**

This schedule reflects credit ratings for OCERS' fixed income portfolio, which includes $395.6 million of fixed income securities, which are included in the Credit investment category and excludes $360.8 million of non-fixed income securities that are included in the Core Fixed Income investment category on the Statement of Fiduciary Net Position.

NOTE 3 : Investments (continued)

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Duration is a measure of the price sensitivity of a fixed-income portfolio to changes in interest rates. It is calculated as the weighted average time to receive a bond's coupon and principal payments. The longer the duration of a portfolio, the greater its price sensitivity to changes in interest rates.

Interest rate risk is managed through OCERS' investment policies requiring that investment managers investing on behalf of OCERS have applicable investment guidelines and that the effective durations of fixed income portfolios remain within a defined range of the benchmark's effective duration. The primary benchmark for domestic fixed income is the Bloomberg Barclays Capital Universal Index. As of December 31, 2017, the duration was 5.77 years for the Bloomberg Barclays Capital Universal Index and all investment managers were in compliance within their defined range.

OCERS invests in a variety of fixed income instruments including asset-backed securities, corporate obligations and commercial mortgage backed securities. The value, liquidity and income of these securities are sensitive to changes in overall economic conditions and the fair value of these securities may be affected by changes in interest rates, default rates and the value of the underlying securities.

The interest rate risk schedule presents the duration of fixed income securities by investment category as of December 31, 2017:

Interest Rate Risk Schedule

As of December 31, 2017
(Dollars in Thousands)

Category	Amount	Duration (in Years)	Percent
Pooled	$ 1,225,918	5.77	59%
International	103,599	4.87	5%
U.S. Treasuries	242,730	4.66	12%
Corporates	254,860	5.85	12%
Agencies	138,226	3.19	7%
Mortgages	42,310	2.06	2%
Municipals	27,978	7.26	1%
Asset-Backed	27,424	1.19	1%
No Effective Duration:			
International	5,667	N/A	0%
Corporates	2,961	N/A	0%
Agencies	3	N/A	0%
Mortgages	9,795	N/A	0%
Municipals	48	N/A	0%
Asset-Backed	12,010	N/A	1%
Swaps	2,810	N/A	0%
Total	$ 2,096,339	5.23	100%

This schedule reflects interest rate risk for OCERS' fixed income portfolio, which includes $395.6 million of fixed income securites, which are included in the Credit investment category and excludes $360.8 million of non-fixed income securities that are included in the Core Fixed Income investment category on the Statement of Fiduciary Net Position.

NOTE 3 : Investments (continued)

Foreign Currency Risk

The value of deposits or investments denominated in foreign currency may be adversely affected by changes in currency exchange rates. OCERS' investment policy permits investment in international securities that includes investments in global public equity securities, core fixed income, real assets and other investment credit strategies. Investment managers monitor currency exposures daily.

The following schedule represents OCERS' net exposure to foreign currency risk in U.S. dollars as of December 31, 2017:

Foreign Currency Risk Schedule

As of December 31, 2017
(Dollars in Thousands)

Currency in U.S. Dollar	Cash	Equities	Fixed Income	Options	Forwards	Swaps	Total
Argentine Peso	$ 43	$ -	$ 692	$ -	$ (27)	$ -	$ 708
Austrailian Dollar	279	30,206	438	-	681	-	31,604
Brazilian Real	134	4,700	1,561	-	(53)	13	6,355
Canadian Dollar	3	15,910	1,923	-	99	-	17,935
Colombian Peso	-	-	-	-	5	-	5
Danish Krone	43	19,540	-	-	(6)	-	19,577
Egyptian Pound	-	-	-	-	14	-	14
Euro Currency	667	222,579	5,125	-	(77)	(79)	228,215
Hong Kong Dollar	255	28,833	-	-	(1)	-	29,087
Iceland Krona	65	(1)	1,156	-	-	-	1,220
Indian Rupee	33	5,045	-	-	-	-	5,078
Indonesian Rupiah	-	986	-	-	-	-	986
Japanese Yen	(95)	157,766	8,168	-	(249)	(22)	165,568
Mexican Peso	86	-	4,254	-	(33)	(52)	4,255
New Israeli Sheqel	-	6,379	-	-	12	-	6,391
New Taiwan Dollar	-	-	-	-	(19)	-	(19)
New Zealand Dollar	-	488	8,218	-	-	-	8,706
Norwegian Krone	-	3,136	-	-	-	-	3,136
Philippine Piso	-	243	_	-	-	-	243
Pound Sterling	419	126,811	2,784	1	(242)	50	129,823
Russian Ruble	-	-	-	-	12	-	12
Singapore Dollar	304	6,512	-	-	(34)	-	6,782
South African Rand	-	2,848	-	-	-	-	2,848
South Korean Won	-	8,509	-	-	(67)	-	8,442
Swedish Krona	31	15,995	-	-	(152)	-	15,874
Swiss Franc	82	49,488	-	-	(227)	2	49,345
Turkish Lira	-	-	-	-	36	-	36
Thailand Baht	(4)	-	-	-	-	-	(4)
Amount Exposed to Foreign Currency Risk	**$ 2,345**	**$ 705,973**	**$ 34,319**	**$ 1**	**$ (328)**	**$ (88)**	**$ 742,222**

The foreign currency amounts above are included within the cash and cash equivalents, global public equity, credit and core fixed income categories on the Statement of Fiduciary Net Position as of December 31, 2017.

NOTE 3 : Investments (continued)

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of OCERS' investment in a single issuer. By policy, OCERS did not hold investments in any one issuer that represented five percent (5%) or more of plan net position and net investments. Investments issued or explicitly guaranteed by the U.S. Government and pooled investments are excluded from this policy requirement.

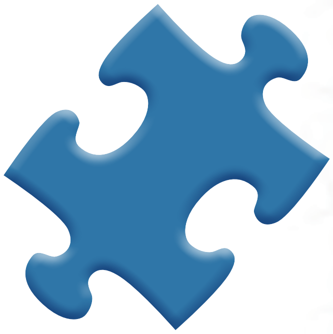
Concentration of Investments

As of December 31, 2017, OCERS did not hold investments in any one organization that represented five percent (5%) or more of the plan's fiduciary net position. Investments issued or explicitly guaranteed by the U.S. Government and pooled investments are excluded from this requirement.

Derivative Instruments

As of December 31, 2017, all derivative instruments held by OCERS are considered investments and not hedges for accounting purposes. Any reference to the term hedging in these financial statements references an economic activity and not an accounting method. All gains and losses associated with these activities are recognized as incurred in the Statement of Changes in Fiduciary Net Position.

The table that follows presents the related net appreciation/(depreciation) in fair value, the fair value amounts and the notional amounts of derivative instruments outstanding at December 31, 2017.



NOTE 3 : Investments (continued)

Derivative Instruments

As of December 31, 2017
(Amounts in Thousands)

	Changes in Fair Value [4]		Fair Value at December 31, 2017		
Derivative Instruments	Classification	Amount [1]	Classification	Amount [2]	Notional [3]
Commodity Futures Long	Net Appreciation / (Depreciation) in Fair Value of Investments	$ (272)	Cash	$ -	6,650
Commodity Futures Short	Net Appreciation / (Depreciation) in Fair Value of Investments	(415)	Cash	-	-
Credit Default Swaps Bought	Net Appreciation / (Depreciation) in Fair Value of Investments	(146)	Credit	(595)	$ 10,803
Credit Default Swaps Written	Net Appreciation / (Depreciation) in Fair Value of Investments	600	Core Fixed Income/Credit	1,197	54,548
Fixed Income Futures Long	Net Appreciation / (Depreciation) in Fair Value of Investments	2,599	Cash/Core Fixed Income/Credit	-	$ 119,563
Fixed Income Futures Short	Net Appreciation / (Depreciation) in Fair Value of Investments	146	Core Fixed Income/Credit	-	(177,404)
Fixed Income Options Bought	Net Appreciation / (Depreciation) in Fair Value of Investments	(908)	Core Fixed Income/Credit	212	107,874
Fixed Income Options Written	Net Appreciation / (Depreciation) in Fair Value of Investments	1,046	Core Fixed Income/Credit	(302)	(162,700)
Foreign Currency Futures Short	Net Appreciation / (Depreciation) in Fair Value of Investments	(3,153)	Core Fixed Income	-	-
Foreign Currency Options Bought	Net Appreciation / (Depreciation) in Fair Value of Investments	(390)	Global Public Equity	-	-
Foreign Currency Options Written	Net Appreciation / (Depreciation) in Fair Value of Investments	35	Core Fixed Income	(7)	(2,500)
Futures Options Bought	Net Appreciation / (Depreciation) in Fair Value of Investments	(50)	Core Fixed Income	-	-
Futures Options Written	Net Appreciation / (Depreciation) in Fair Value of Investments	258	Core Fixed Income	-	-
FX Forwards	Net Appreciation / (Depreciation) in Fair Value of Investments	(1,025)	Core Fixed Income/Global Public Equity/Credit	(328)	196,281
Index Futures Long	Net Appreciation / (Depreciation) in Fair Value of Investments	53,417	Global Public Equity/Cash	-	1,316
Index Futures Short	Net Appreciation / (Depreciation) in Fair Value of Investments	(2,924)	Global Public Equity	-	(23)

NOTE 3 : Investments (continued)

Derivative Instruments

As of December 31, 2017
(Amounts in Thousands)

(Continued)

Derivative Instruments	Changes in Fair Value (4)		Fair Value at December 31, 2017		Notional (3)
	Classification	Amount (1)	Classification	Amount (2)	
Pay Fixed Interest Rate Swaps	Net Appreciation / (Depreciation) in Fair Value of Investments	489	Core Fixed Income/Credit	2,262	106,352
Receive Fixed Interest Rate Swaps	Net Appreciation / (Depreciation) in Fair Value of Investments	(139)	Credit	(56)	13,914
Rights	Net Appreciation / (Depreciation) in Fair Value of Investments	195	Core Fixed Income/Global Public Equity	-	-
Total Return Swaps Bond	Net Appreciation / (Depreciation) in Fair Value of Investments	(3,943)	Global Public Equity	2	$ 51,391
Total Return Swaps Equity	Net Appreciation / (Depreciation) in Fair Value of Investments	2,072	Global Public Equity	-	(20,270)
Grand Totals		$ 47,492		$ 2,385	

(1) Negative values (in brackets) refer to losses
(2) Negative values refer to liabilities and are reported net of investments
(3) Notional may be a dollar amount or size of underlying for futures and options, negative values refer to short positions
(4) Excludes futures margin payments

Valuation of Derivative Instruments

Non-exchange traded instruments, such as swaps, are valued using similar methods as those described for debt securities.

Futures contracts are traded on exchanges and typically derive their value from underlying indices and are marked to market daily. All gains and losses associated with changes in the value of futures contracts also settle on a daily basis and result in the contracts themselves having no fair value at the end of any trading day, including December 31, 2017. Future variation margin accounts also settle daily and are recognized in the Statement of Changes in Fiduciary Net Position under net appreciation/(depreciation) in the fair value of the investments as incurred.

In general, option values are dependent upon a number of different factors, including the current market price of the underlying security, the strike price of the option, costs associated with holding a position in the underlying security including interest and dividends, the length of time until the option expires and an estimate of the future price volatility of the underlying security relative to the time period of the option.

Foreign currency forward contracts are agreements to buy or sell a currency at a specified exchange rate on a specified date. The fair value of a foreign currency forward is determined by the difference between the specified exchange rate and the closing exchange rate at December 31, 2017.

Custodial Credit Risk – Derivative Instruments

As of December 31, 2017, all investments in derivative instruments are held in OCERS' name and are not exposed to custodial credit risk as described in the previous discussion of custodial credit risk.

NOTE 3 : Investments (continued)

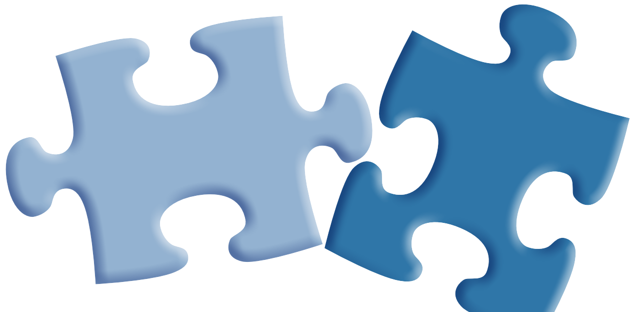
Counterparty Credit Risk – Derivative Instruments

A summary of counterparty credit ratings relating to non-exchange traded derivatives in asset positions as of December 31, 2017, is as follows:

Counterparty Credit Risk Schedule for Derivative Instruments

As of December 31, 2017
(Dollars in Thousands)

Counterparty Name	S&P Rating	Foreign Currency Forward Contracts	Swaps	Total Fair Value
Bank of America ICE	A-	$ -	$ 414	$ 414
Bank of America LCH	A-	-	28	28
Bank of America, N.A.	A+	3	-	3
Barclays Capital	A	-	1	1
Citibank N.A.	A+	1,043	-	1,043
Credit Suisse FOB CME	A	-	707	707
Credit Suisse FOB ICE	A	-	98	98
Credit Suisse FOB LCH	A	-	111	111
Goldman Sachs Bank USA	BBB+	23	-	23
Goldman Sachs International	A+	-	55	55
HSBC Bank USA	AA-	7	1	8
JPMorgan	A-	-	2	2
JPMorgan Chase Bank	A+	43	-	43
Morgan Stanley Bank, N.A.	A+	4	-	4
Morgan Stanley CME	BBB+	-	122	122
Morgan Stanley ICE	BBB+	-	783	783
Standard Chartered Bank, London	A	5	-	5
Total Non-Exchange Traded Derivatives in Asset Position		**$ 1,128**	**$ 2,322**	**$ 3,450**



NOTE 3 : Investments (continued)

Interest Rate Risk – Derivatives

At December 31, 2017, OCERS is exposed to interest rate risk on its investments in various swap arrangements based on daily interest rates for LIBOR (London Interbank Offered Rate), Brazilian reference rate, European reference rates and Mexican swap rate. The following table illustrates the maturity periods of these investments.

Interest Rate Risk - Schedules for Derivative Instruments

As of December 31, 2017
(Dollars in Thousands)

		Investment Maturities (in years)			
Investment Type	Fair Value	Less Than 1	1-5	6-10	More than 10
Credit Default Swaps Bought	$ (595)	$ (2)	$ (593)	$ -	$ -
Credit Default Swaps Written	1,197	8	1,399	-	(210)
Pay Fixed Interest Rate Swaps	2,262	85	111	2,082	(16)
Receive Fixed Interest Rate Swaps	(56)	-	-	25	(81)
Total Return Swaps Bond	2	2	-	-	-
Total Return Swaps Equity	-	-	-	-	-
Total	**$ 2,810**	**$ 93**	**$ 917**	**$ 2,107**	**$ (307)**

Derivative Instruments Highly Sensitive to Interest Rate Changes

As of December 31, 2017
(Dollars in Thousands)

Investment Type	Receive Rate	Payable Rate	Fair Value	Notional
Pay Fixed Interest Rate Swaps	Variable 3-month LIBOR	Fixed 1.25%-2.50%	$ 2,250	$ 75,640
Pay Fixed Interest Rate Swaps	Variable 6-month EURIB	Fixed 0.50%	(16)	4,803
Pay Fixed Interest Rate Swaps	Variable 6-month LIBOR	Fixed 0.30%-2.00%	28	25,909
Total Pay Fixed Interest Rate Swaps			**$ 2,262**	
Receive Fixed Interest Rate Swaps	Fixed 3.14%	Variable 0-month BRCDI	$ 13	$ 2,412
Receive Fixed Interest Rate Swaps	Fixed 6.75%	Variable 1-month TIIE	(52)	1,196
Receive Fixed Interest Rate Swaps	Fixed 1.75%-2.45%	Variable 3-month LIBOR	(80)	820
Receive Fixed Interest Rate Swaps	Fixed 3.25%	Variable 6-month EURIB	63	9,486
Total Receive Fixed Interest Rate Swaps			**$ (56)**	
Total Interest Rate Swaps			**$ 2,206**	

NOTE 3 : Investments (continued)

Foreign Currency Risk – Derivatives

At December 31, 2017, OCERS is exposed to foreign currency risk on investments in swaps and forward currency contracts denominated in foreign currencies that may be adversely affected by changes in the currency exchange rates.

Foreign Currency Risk Schedule for Derivative Instruments

As of December 31, 2017
(Dollars in Thousands)

Currency Name	Options	Currency Forward Contracts Net Receivables	Currency Forward Contracts Net Payables	Swaps	Total Exposure
Argentine Peso	$ -	$ (27)	$ -	$ -	$ (27)
Austrailian Dollar	-	718	(37)	-	681
Brazilian Real	-	(21)	(32)	13	(40)
Canadian Dollar	-	140	(41)	-	99
Colombian Peso	-	5	-	-	5
Danish Krone	-	5	(11)	-	(6)
Egyptian Pound	-	14	-	-	14
Euro Currency	-	102	(179)	(79)	(156)
Hong Kong Dollar	-	(1)	-	-	(1)
Japanese Yen	-	(184)	(65)	(22)	(271)
Mexican Peso	-	(40)	7	(52)	(85)
New Israeli Sheqel	-	12	-	-	12
New Taiwan Dollar	-	-	(19)	-	(19)
Pound Sterling	1	7	(249)	50	(191)
Russian Ruble	-	12	-	-	12
Singapore Dollar	-	13	(47)	-	(34)
South Korean Won	-	-	(67)	-	(67)
Swedish Krona	-	21	(173)	-	(152)
Swiss Franc	-	-	(227)	2	(225)
Turkish Lira	-	36	-	-	36
Total Foreign Currency	**$ 1**	**$ 812**	**$ (1,140)**	**$ (88)**	**$ (415)**
U.S. Dollar	(98)	-	-	2,898	2,800
Total	**$ (97)**	**$ 812**	**$ (1,140)**	**$ 2,810**	**$ 2,385**

Rate of Return

For the year ended December 31, 2017, the annual money-weighted rate of return on the assets of the plan, net of investment expense, was 14.74% The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the timing of cash flows and the changing amounts actually invested.

NOTE 3 : Investments (continued)

Securities Lending

OCERS is authorized by investment policy and state law to lend its investment securities including global public equities, core fixed income, credit and real assets to broker/dealers in exchange for collateral in the form of either cash or securities. Lent securities are collateralized with an initial market value of not less than 102% or 105% depending on the nature of the loaned securities and the collateral received, of fair value of the loaned securities. The lending agent receives cash and non-cash collateral for the securities on loan. There are no restrictions on the amount of securities that can be lent at one time. State Street Bank serves, in accordance with a Securities Lending Authorization Agreement, as OCERS' agent to loan securities. State Street Bank does not have the ability to pledge or sell collateral securities delivered absent a borrower default.

Cash collateral received on loaned securities is invested together with the cash collateral of other qualified tax-exempt investors in a collective investment fund managed by State Street. The collective investment fund is not rated. In December 2010 the collective investment fund was divided into separate investment pools: 1) a liquidity pool and 2) a duration pool. As of December 31, 2017, the liquidity pool had an average life-final maturity of 153 days and a weighted average maturity (WAM) of 28 days. The duration pool had an average life-final maturity of 3,185 days and a WAM of 25 days. Because loans are terminable at will, the duration of the loans did not generally match the duration of the investments made with the cash collateral. The Securities Lending Authorization Agreement requires State Street to indemnify OCERS if the broker/dealer fails to return any borrowed securities. During 2017, there were no failures to return loaned securities or to pay distributions by the borrowers. Furthermore, there were no losses due to borrower defaults. The fair value of securities on loan and the total cash and non-cash collateral held as of December 31, 2017, was $243.2 million and $249.3 million, respectively. The following table shows fair values of securities on loan and cash collateral received by asset class:

Securities on Loan and Collateral Received

As of December 31, 2017
(Dollars in Thousands)

Security Lent for Cash Collateral	Fair Value of OCERS' Securities Lent	Cash Collateral Received	Non-Cash Collateral Received	Total Collateral Received
Global Public Equity	$ 70,463	$ 53,844	$ 19,209	$ 73,053
Core Fixed Income	69,545	44,551	26,311	70,862
Credit	94,335	86,891	9,372	96,263
Real Assets	8,906	8,910	163	9,073
Total	**$ 243,249**	**$ 194,196**	**$ 55,055**	**$ 249,251**

Investments – Fair Value Measurements

OCERS categorizes its fair value measurements of its investments based on the three level fair value hierarchy established by GAAP. The fair value hierarchy is based on the valuation inputs used to measure fair value of the asset or liability and gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 inputs) and the lowest priority to unobservable inputs (Level 3 inputs). Unobservable inputs are developed using the best information available about the assumptions that market participants would use when pricing an investment. The three levels of the fair value hierarchy are:

- **Level 1** - Unadjusted quoted prices for identical instruments in active markets.
- **Level 2** - Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs are observable.
- **Level 3** - Valuations are derived from valuation techniques in which significant inputs are unobservable.

Investments that are measured at fair value using the net asset value per share (or its equivalent) as a practical expedient are not classified in the fair value hierarchy.

The following table represents the fair value measurements as of December 31, 2017.

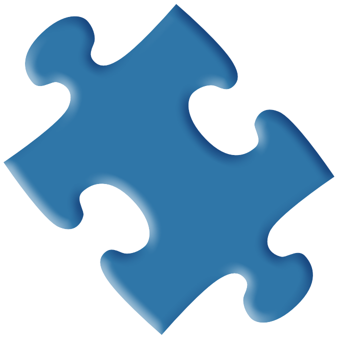
NOTE 3 : Investments (continued)

Investments, Derivative Instruments and Securities Lending Collateral Measured at Fair Value

As of December 31, 2017
(Dollars in Thousands)

	12/31/2017	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				
Core Fixed Income:				
U.S. Fixed Income				
Pooled	$ 1,225,918	$ -	$ 1,225,918	$ -
U.S. Treasuries	242,730	-	242,730	-
Corporates	257,821	-	257,821	-
Agencies	138,229	-	138,229	-
Mortgages	52,105	-	52,105	-
Municipals	28,026	-	28,026	-
Asset-Backed	39,434	-	39,434	-
International	109,266	-	109,266	-
Total Core Fixed Income	**2,093,529**	**-**	**2,093,529**	**-**
Global Public Equity:				
U.S. Equity	3,292,013	193,539	3,098,474	-
International Equity	1,701,276	729,102	972,174	-
Emerging Market Equity	938,683	-	938,683	-
Total Global Public Equity	**5,931,972**	**922,641**	**5,009,331**	**-**
Real Assets:				
Agriculture	64,763	-	-	64,763
Commodities	251,018	251,018	-	-
Energy	224,748	123,165	-	101,583
Real Estate	4,659	-	-	4,659
Timber	119,728	-	-	119,728
Total Real Assets	664,916	374,183	-	290,733
Other Investments:				
Credit				
Multi-Strategy	55,584	-	55,584	-
Risk Mitigation	659,795	-	659,795	-
Total Other Investments	**715,379**	**-**	**715,379**	**-**
Total Investments by Fair Value Level	**$ 9,405,796**	**$ 1,296,824**	**$ 7,818,239**	**$ 290,733**

Core Fixed Income in the above schedule includes $395.6 million of fixed income securities, which are included in the Credit investment category; and excludes $360.8 million of non-fixed income securities and $2.8 million of swaps that are included in the Core Fixed Income investment category on the Statement of Fiduciary Net Position.



NOTE 3 : Investments (continued)

Investments, Derivative Instruments and Securities Lending Collateral Measured at Fair Value

As of December 31, 2017
(Dollars in Thousands)
(Continued)

	12/31/2017	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments Measured at the Net Asset Vaue (NAV)				
Global Public Equity:				
U.S. Equity	$ 118,691			
International Equity	160,433			
Emerging Market Equity	292,779			
Total Global Public Equity	**571,903**			
Real Assets:				
Agriculture	58,600			
Energy	537,038			
Real Estate	1,211,264			
Total Real Assets	**1,806,902**			
Other Investments:				
Credit:				
Emerging Market Debt	471,472			
Direct Lending	188,028			
Multi-Strategy	657,729			
Non-U.S. Direct Lending	234,646			
Absolute Return:				
Direct Hedge	2,400			
Private Equity	1,345,230			
Risk Mitigation	83,895			
Total Other Investments	**2,983,400**			
Total Investments Measured at the NAV	**$ 5,362,205**			
Investments - Derivative Instruments				
Swaps:				
Interest Rate Swaps	$ 2,206	$ -	$ 2,206	$ -
Credit Default Swaps	602	-	602	-
Total Return Swaps	2	-	2	-
Options	(97)	-	(97)	-
Total Investments - Derivative Instruments	**2,713**	**$ -**	**$ 2,713**	**$ -**
Total Investments Measured at Fair Value	**$ 14,770,714**			
Investments - Securities Lending Collateral				
Debt Securities:				
Core Fixed Income	$ 44,551	$ -	$ 44,551	$ -
Credit	86,891	-	86,891	-
Equity Investments:				
U.S. Equity	29,305	29,305	-	-
International Equity	24,539	24,539	-	-
Real Return	8,910	8,910	-	-
Total Investments - Securities Lending Collateral	**$ 194,196**	**$ 62,754**	**$ 131,442**	**$ -**

NOTE 3 : Investments (continued)

Core fixed income include actively traded debt instruments such as those securities issued by the United States government, federal agencies, municipal obligations, foreign governments, and both U.S. and foreign corporate issuers. Core fixed income securities are reported at fair value as of the close of the trading date. Fair values for securities not traded on a regular basis are obtained from pricing vendors who employ modeling techniques, such as matrix pricing or discounted cash flow method, in determining security values. These inputs are observable, which supports the Level 2 fair value hierarchy.

Global public equity include U.S. and international equity securities, and emerging markets equity securities. Global public equity securities classified in Level 1 of the fair value hierarchy are primarily common and preferred stock or real estate investment trusts. Fair value for these exchange traded securities is determined as of the close of the trading date in the primary market or agreed upon exchange. The last known price is used for listed securities that did not trade on a particular date. Fair value is obtained from third-party pricing sources for securities traded over-the-counter. Global public equity securities classified in Level 2 of the fair value hierarchy consist of institutional funds that are valued based on the fair value of underlying investments using pricing models or other valuation methodologies that use pricing inputs that are either directly or indirectly observable on the valuation date for the securities or assets held in the fund.

Real assets investments at fair value include a variety of real return investments in agriculture, commodities, energy, real estate and timber resources. Commodities and energy classified in Level 1 of the fair value hierarchy are valued using quoted prices in active markets for those securities. Real asset investments classified as Level 3 include energy investments that are not actively traded, are less liquid and subject to redemption restrictions. Determining the fair value requires valuation techniques, such as expert judgment, which are unobservable. The general partner of energy funds estimate the fair value of these investments in good faith using the best information available, which may incorporate the general partner's own assumptions. Real estate assets held directly are appraised by independent third-party appraisers in accordance with the Uniform Standards of Professional Appraisal Practice. Independent appraisals use professional judgment, which is an unobservable input, to determine the fair value of the asset; therefore these real estate investments are classified as Level 3. Agriculture and timber resources included in Level 3 are based on independent appraisals and/or the good faith estimates of management.

Other investments includes multi-strategy credit investments and risk mitigation. These investments are classified in Level 2 of the fair value hierarchy and include primarily institutional funds that are valued based on the fair value of underlying investments using pricing models or other valuation methodologies that use pricing inputs that are either directly or indirectly observable on the valuation date for the securities or assets held in the fund.

Derivative instruments classified as Level 2 are valued using a market approach with observable inputs from major indices as well as benchmark interest rates and foreign exchange rates.

Securities lending represents cash collateral received for securities lent. The equity securities lent include domestic equities, international equities, and real return investments in Level 1 of the fair value hierarchy, valued using a market approach for prices quoted in active markets for securities. Level 2 securities lent are core fixed income securities, which include U.S. government, federal agencies, and credit securities including municipal obligations along with corporate issuers.

NOTE 3 : Investments (continued)

Investments Measured at NAV, Unfunded Commitments and Redemption Terms

As of December 31, 2017
(Dollars in Thousands)

The System used the Net Asset Value (NAV) to determine the fair value of the underlying investments when an investment does not have a readily determinable fair value, provided that the NAV is calculated and used as a practical expedient to estimate fair value in accordance with GAAP requirements.

	Fair Value Measured at NAV	Unfunded Commitments	Redemption Frequency (If Currently Eligible)[1]	Redemption Notice Period
Investments Measured at the Net Asset Value (NAV)				
Public Equity Investments:				
U.S. Equity	$ 118,691	$ -	M, S	15-60 days
International Equity	160,433	-	M	60 days
Emerging Market Equity	292,779	-	M	30 days
Total Public Equity Investments Measured at the NAV	571,903	-		
Real Assets:				
Agriculture	58,600	27,351	Q	60 days
Energy	537,038	637,949	N/A	N/A
Real Estate	1,211,264	335,509	Q	5-90 days
Total Real Assets Measured at the NAV	1,806,902	1,000,809		
Other Investments:				
Credit:				
Emerging Market Debt	471,472	-	M	3 days prior to month-end
Direct Lending	188,028	15,458	N/A	N/A
Multi-Strategy	657,729	-	M, Q	60-95 days
Non-U.S. Direct Lending	234,646	154,935	N/A	N/A
Direct Hedge	2,400	-	N/A	N/A
Private Equity	1,345,230	600,757	N/A	N/A
Risk Mitigation	83,895	-	Q	75 days
Total Other Investments Measured at the NAV	2,983,400	771,150		
Total Investments Measured at the NAV	**$ 5,362,205**	**$ 1,771,959**		

[1] M=Monthly, S=Semi-Annually, Q=Quarterly

The investment types listed in the above table were measured at the Net Asset Value (NAV) as explained below:

Global public equities include four separate institutional funds. Each fund has a different focus, U.S. equity, international equity, global equity and emerging market equity. The fair value of each fund has been determined using NAV per share or unit of the investments.

NOTE 3 : Investments (continued)

Real assets: Agriculture includes one fund that invests in a diversified portfolio of row, vegetable and permanent crop farmland in select major agricultural states. The fund is an open-end, infinite life, private REIT (real estate investment trust) subject to the redemption terms in the above schedule.

Real assets: Energy consists of thirteen limited partnerships that invest primarily in oil and gas related investments including energy-related infrastructure. There are no redemption terms for any of these partnerships. These investments are considered illiquid. During the life of the partnerships, distributions are received as underlying partnership investments are realized. The fair values of this investment type have been determined using estimates provided by the underlying partnerships and are at NAV. Two of the partnerships are considered going concerns, and are included at a zero value.

Real assets: Real estate investments include 14 funds consisting of primarily trust funds and limited partnerships. The purpose of these funds is to acquire, own, invest in real estate and real estate related assets with the intention of achieving current income, capital appreciation or both. These investments are valued through independent appraisals and other unobservable methods. Approximately 20% of the investments are closed-end funds with structured investment periods, and are considered illiquid investments. All other funds have no redemption restrictions other than the restrictions noted above.

Credit: Emerging market debt includes investments in three alternative funds that invest primarily in debt in emerging markets both domestic and foreign. The fair value of these investments has been determined using NAV per share of the investments. Investments representing approximately 59% of the value of the investments cannot be redeemed due to restrictions that do not allow for redemption.

Credit: U.S. direct lending consists of four funds. These funds seek to generate current income while preserving capital by investing in senior secured loans and other debt and equity securities of primarily U.S. companies. These investments are considered illiquid. Redemption restrictions are in place over the life of the partnerships. During the life of the partnerships, distributions are received as underlying partnership investments are realized.

Credit: Multi-strategy includes investments in five funds. All funds allow redemption with proper notification. These investment funds seek to minimize risk and volatility by constructing a portfolio of investments across a range of strategies.

Credit: Non-U.S. direct lending includes four investment funds. All of the funds are closed-end funds with structured investment periods, plus extension options. These funds invest opportunistically in Non-U.S. credit investments, which offer downside protection, such as senior secured loans to non-investment grade companies.

Absolute return: Direct hedge includes one limited partnership fund, which is winding down. No redemptions are available at this time. Proceeds will be distributed when liquidated.

Private equity includes primarily investments in limited partnerships. Generally, the partnership strategies are to maximize the return by participating in private equity and equity-related investments through a diversified portfolio of venture capital, growth equity, buyouts, special situation partnerships and other limited liability vehicles. Investments in these partnerships are typically for 10-12 years and are considered illiquid. Redemptions are restricted over the life of the partnership. During the life of the partnerships, distributions are received as underlying partnership investments are realized. The fair values of this investment type have been determined using NAV per share of the System's ownership interest in partners' capital.

Risk mitigation includes one limited partnership fund, which allows redemption with proper notification. The fund assists in diversifying the portfolio and protecting in an economic downturn of growth assets. The strategies are uncorrelated or negatively correlated to economic growth assets. The fair value of this investment has been determined using NAV per share.

NOTE 4 : Funding Policy - Pension Plan

Employer and employee/member pension plan contribution requirements are determined as a percentage of plan sponsor payrolls. In determining contributions, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. The projected total pensionable compensation for all OCERS' plan sponsors for the year ended December 31, 2017, was $1.6 billion. Employer contribution rates are determined using the entry age normal actuarial cost method based upon a level percentage of payroll. The employer contributions provide for both normal cost and an amount to amortize any unfunded or overfunded actuarial accrued liabilities. By definition, the normal cost is the annual contribution rate that, if paid annually from a member's first year of membership through the year of retirement, would accumulate to the amount necessary to fully fund the member's retirement benefit if all underlying assumptions are met. The actuarial report as of December 31, 2014 established the contribution rates for the first six months of calendar year 2017 (second half of fiscal year 2016-2017), and the actuarial valuation report as of December 31, 2015 established the contribution rates for the last six months of calendar year 2017 (first half of fiscal year 2017-2018). For the year ended December 31, 2017, employer contribution rates ranged from 11.40% of payroll to 61.89% depending upon the benefit plan type. Employer pension contributions were $572.1 million for the year ended December 31, 2017, of which approximately $401.1 million and $96.5 million, net of prepayment discounts, were made by the County of Orange and the Orange County Fire Authority, respectively. Participating employers are required by Government Code Sections 31453.5 and 31454 to contribute a percentage of covered salary to the Plan. The contribution requirements of participating active members and employers are established and may be amended by the OCERS' Board of Retirement. Participating employers may pay a portion of the participating active employees' contributions through negotiations and bargaining agreements. Employer contributions paid for by the employee through negotiated reverse pick-up arrangements are treated and reported as employee contributions. Employee contributions elected to be paid for by the employer under Section 31581.1 are treated and reported as employer contributions as these payments do not become part of the accumulated contributions of the employee and are immaterial. Employee contributions elected to be paid for by the employer under Section 31581.2 are treated and reported as employee contributions as these payments are credited to the employee account and become a part of their accumulated contributions.

Employee contributions are established by the OCERS' Board of Retirement and guided by state statute (Government Code Sections 31621, 31621.5, 31621.8, 31639.25 and 31639.5) and vary based upon employee age at the time of entering OCERS membership. OCERS received $262.3 million in employee pension contributions for the year ended December 31, 2017. Average employee contribution rates for the year ended December 31, 2017, ranged between 8.75% and 16.35%.

NOTE 5 : Plan Reserves

Employer and employee contributions are deposited into various legally-required reserve accounts established on a book value basis. Set forth below are the descriptions of OCERS' various reserve accounts:

Pension Reserve

Pension reserve represents funding set aside for retirement payments derived from employer contributions. Additions include transfers from the employer contribution reserve and interest credited. Deductions include benefit payments made to retired members.

Employee Contribution Reserve

Employee contribution reserve represents the balance of member contributions. Additions include member contributions and interest credited. Deductions include member refunds and transfers to the annuity reserve fund retirement benefits.

Employer Contribution Reserve

Employer contribution reserve represents the balance of employer contributions for active member future retirement benefits. Additions include employer contributions. Deductions include transfers to the pension reserves in order to fund retirement benefits, disability benefits and death benefits.

Annuity Reserve

Annuity reserve represents funding set aside for retirement payments derived from contributions made by members. Additions include transfers from the employee contribution reserve and interest credited. Deductions include benefit payments made to retired members.

Contra Account

A positive balance in this account represents excess earnings. A credit balance in this account represents the amount of interest credited to the reserve accounts that has not been paid for out of current or excess earnings. Additions include net increases to the fiduciary net position, which are decreased by interest credited to the reserves account.

NOTE 5 : Plan Reserves (continued)

County Investment Account (POB Proceeds) Reserve

County investment account (POB Proceeds) reserve represents the remaining proceeds from the County of Orange's 1994 Pension Obligation Bond issuance. The remaining proceeds are utilized, in accordance with a long standing agreement between OCERS and the County of Orange, to offset a portion of the annual actuarially-determined contribution rates for the County of Orange. In 2017, none of the remaining proceeds were utilized to offset the actuarially determined contributions for the County of Orange.

OCSD UAAL Deferred Reserve

The Orange County Sanitation District (OCSD) UAAL Reserve represents the payment by OCSD of its deferred UAAL. OCERS shall make annual transfers from the OCSD reserve account into the OCERS' employer contribution reserve account in the amount necessary to satisfy the actual UAAL attributed to OCSD. The intent of this transfer is to provide that the OCSD's future annual employer contribution obligation to OCERS shall consist of either the normal cost portion only, or the normal cost and amortizing installments of only such amount of future actual UAAL that exceeds the amount of funds remaining in the OCSD reserve account.

Actuarial Deferred Return

The actuarial deferred return represents the balance of deferred earnings created by a five-year smoothing of actual gains and losses compared to the assumed investment rate of return.

Health Care Plan Reserves

Health care plan reserves represent assets held to pay medical benefits for eligible retirees of the 401(h) health care plans. Additions include employer contributions and investment earnings. Deductions include medical payments.

Total Plan Reserves

As of December 31, 2017
(Dollars in Thousands)

Valuation Reserves		
Pension Reserve	$	8,409,830
Employee Contribution Reserve		3,093,113
Employer Contribution Reserve		2,620,807
Annuity Reserve		1,411,751
Contra Account		(1,338,906)
Non-Valuation Reserves		
County Investment Reserve		134,416
OCSD UAAL Deferred Reserve		14,871
Total Pension Fund Reserves (smoothed market actuarial value)		**14,345,882**
Actuarial Deferred Return		456,013
Net Position Restricted for Pensions including Non-Valuation Reserves		**14,801,895**
Health Care Reserves		334,054
Net Position-Total Fund	**$**	**15,135,949**

NOTE 6 : Administrative Expenses - Pension

As permitted by Government Code (Code) Section 31580.2, the Board of Retirement adopts an annual budget, financed from the System's assets, covering the entire expenses for the administration of OCERS. The Code provides that administrative expenses incurred in any year are to be charged against the earnings of the pension trust fund and are not to exceed twenty-one hundredths of one percent (0.21%) of OCERS' actuarial accrued liabilities, excluding investment related costs and expenditures for computer software, hardware and related technology consulting services. Administrative expenses incurred in calendar year 2017 were within the limits established by the Code. The following schedule represents the excess of the maximum allowed over actual administrative expenses for the year ended December 31, 2017.

Administrative Expense Compared to Projected Actuarial Accrued Liability

For the Year Ended December 31, 2017
(Dollars in Thousands)

Projected Actuarial Accrued Liability (AAL) as of 12/31/17	$	18,896,140
Maximum Allowed for Administrative Expense (AAL * 0.21%)		39,682
Actual Administrative Expense[1]		15,349
Excess of Allowed Over Actual Expense	**$**	**24,333**
Actual Administrative Expense as a Percentage of Projected Actuarial Accrued Liability as of 12/31/17		0.08%
[1] Administrative Expense Reconciliation		
Administrative Expense per Statement of Changes in Fiduciary Net Position	$	17,002
Less Administrative Expense Not Considered per CERL Section 31596.1		(1,653)
Administrative Expense Allowable Under CERL Section 31580.2	**$**	**15,349**

NOTE 7 : Contingencies

At December 31, 2017, OCERS was involved in various litigation matters. In management's opinion, and after consultation with legal counsel, the outcome of these matters is not expected to have a material adverse effect on OCERS' financial position.

NOTE 8 : Pension Disclosures

The net pension liability was measured as of December 31, 2017. The plan fiduciary net position was valued as of the measurement date while the total pension liability was determined based upon rolling forward the total pension liability from the actuarial valuation as of December 31, 2016. The components of the net pension liability as of December 31, 2017, are as follows:

Net Pension Liability

As of December 31, 2017
(Dollars in Thousands)

Total Pension Liability	$	19,753,994
Less: Plan Fiduciary Net Position		(14,801,895)
Net Pension Liability	**$**	**4,952,099**
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability		**74.93%**

NOTE 8 : Pension Disclosures (continued)

Actuarial Assumptions

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future. Examples include future salary increases and investment earnings, expected retirement age, life expectancy and other relevant factors. Actuarially determined amounts are subject to continual revision as results are compared to past expectations and new estimates are made about the future. OCERS' actuary and Board of Retirement review the economic and demographic assumptions every three years and the actuarially determined contributions annually.

In preparing the actuarial valuation, the actuary has complied with the parameters set forth in GASB Statement No. 67, *Financial Reporting for Pension Plans – An Amendment of GASB Statement No. 25*, and employed generally accepted actuarial methods and assumptions to measure the total pension liability of plan sponsors. The actuary's calculations are based upon member data and financial information provided by the System. Projection of benefits for financial reporting purposes is based on all benefits estimated to be payable through the System to current active, retired and inactive employees as a result of their past service and their expected future service.

The total pension liability as of December 31, 2017, was remeasured by (1) revaluing the total pension liability as of December 31, 2016, (before the roll forward) to include the actuarial assumptions that the Board of Retirement has adopted for use in the pension funding valuation as of December 31, 2017, and (2) using this revalued total pension liability in rolling forward the results from December 31, 2016 to December 31, 2017:

Actuarial Information

Investment Rate of Return	7.00%, net of pension plan investment expense, including inflation
Inflation Rate	2.75%
Projected Salary Increases	General: 4.25% to 12.25% and Safety: 4.75% to 17.25%, vary by service, including inflation
Cost of Living Adjustments	2.75% of retirement income
Mortality Rates	Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table, projected generationally using two-dimensional MP-2016 scale, adjusted separately for healthy and disabled for both general and safety members.
Other Assumptions	Refer to Actuarial Experience Study 01/01/2014-12/31/2016

Long-Term Expected Real Rate of Return

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before deducting investment expenses, used in the derivation of the December 31, 2017, long-term expected investment rate of return assumption are summarized in the following table:

NOTE 8 : Pension Disclosures (continued)

Long-Term Expected Real Rate of Return

For the Year Ended December 31, 2017

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return
Global Equity	35%	6.38%
Core Bonds	13%	1.03%
High Yield Bonds	4%	3.52%
Bank Loan	2%	2.86%
TIPS	4%	0.96%
Emerging Markets Debt	4%	3.78%
Real Estate	10%	4.33%
Core Infrastructure	2%	5.48%
Natural Resources	10%	7.86%
Risk Mitigation	5%	4.66%
Mezzanine / Distressed Debts	3%	6.53%
Private Equity	8%	9.48%
Total	**100%**	

Discount Rate

The discount rate used to measure the total pension liability was 7.00% for the year ended December 31, 2017. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employer contributions that are intended to fund benefits for current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments for 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 as of December 31, 2017.

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

The following table represents the net pension liability as of December 31, 2017, of participating employers calculated using the discount rate of 7.00%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1.00% lower (6.00%) or 1.00% higher (8.00%) than the current rate:

Sensitivity of Net Pension Liability to Changes in the Discount Rate

As of December 31, 2017
(Dollars in Thousands)

1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
$ 7,854,146	$ 4,952,099	$ 2,594,547

Section II

Financial

Required Supplementary Information

Schedule of Changes in Net Pension Liability of Participating Employers

For the Years Ended December 31, 2013 through 2017[1]
(Dollars in Thousands)

	2017	2016	2015	2014	2013
Total Pension Liability					
Service Cost	$ 452,412	$ 427,473	$ 439,454	$ 438,600	$ 444,838
Interest	1,305,268	1,241,080	1,197,308	1,153,352	1,109,002
Change of Benefit Terms	-	-	-	-	-
Differences Between Expected and Actual Experience	(66,964)	(323,566)	(205,463)	(327,402)	(295,483)
Changes of Assumptions	827,197	-	-	(127,729)	-
Benefit Payments, Including Refunds of Employee Contributions	(764,344)	(717,976)	(675,963)	(630,678)	(586,284)
Other	-	(509)[2]	-	-	-
Net Change in Total Pension Liability	**1,753,569**	**626,502**	**755,336**	**506,143**	**672,073**
Total Pension Liability - Beginning	**18,000,425**	**17,373,923**	**16,618,587**	**16,112,444**	**15,440,371**
Total Pension Liability - Ending (a)	**$ 19,753,994**	**$ 18,000,425**	**$ 17,373,923**	**$ 16,618,587**	**$ 16,112,444**
Plan Fiduciary Net Position					
Contributions - Employer [3]	$ 572,104[4]	$ 567,196	$ 571,298	$ 625,520	$ 427,095
Contributions - Employee	262,294	258,297	249,271	232,656	209,301
Net Investment Income/(Loss)	1,939,635	1,061,243	(10,873)	499,195	1,152,647
Benefit Payments, Including Refunds of Employee Contributions	(764,344)	(717,976)	(675,963)	(630,678)	(586,284)
Administrative Expense	(17,002)	(16,870)	(12,521)	(11,905)	(11,705)
Net Change in Plan Fiduciary Net Position	**1,992,687**	**1,151,890**	**121,212**	**714,788**	**1,191,054**
Plan Fiduciary Net Position - Beginning	**12,809,208**	**11,657,318**	**11,536,106**	**10,821,318**	**9,630,264**
Plan Fiduciary Net Position - Ending (b)	**14,801,895**	**12,809,208**	**11,657,318**	**11,536,106**	**10,821,318**
Net Pension Liability (a) - (b) = (c)	**$ 4,952,099**	**$ 5,191,217**	**$ 5,716,605**	**$ 5,082,481**	**$ 5,291,126**
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability (b)/(a)	74.93%	71.16%	67.10%	69.42%	67.16%
Covered Payroll (d)	$ 1,678,322	$ 1,602,675	$ 1,521,036	$ 1,513,206	$ 1,494,745
Plan Net Pension Liability as a Percentage of Covered Payroll (c)/(d)	295.06%	323.91%	375.84%	335.88%	353.98%

[1] Data for years prior to 2013 is not available. Information will be presented over ten years as it becomes available prospectively.

[2] Orange County Public Law Library was separated out from the Orange County Sanitation District in Rate Group #3 and put into their own Rate Group (Rate Group #12) as of the December 31, 2015 valuation. There was an adjustment to the UAAL for Rate Group #3 that was originally included in the December 31, 2015 valuation. There was a credit of $509 given to the Orange County Public Law Library to reflect that their future service enhancement did not increase the UAAL.

[3] Reduced by discount for prepaid contributions and transfers from County Investment Account.

[4] A $24,042 transfer from the Orange County Sanitation District Deferred UAAL Account, which was required to offset a UAAL increase for the assumption changes has been excluded from this amount.

Schedule of Investment Returns

For the Years Ended December 31, 2014 Through 2017[1]

Years Ended December 31	Annual Money Weighted Rate of Return, Net of Investment Expense
2014	4.64%
2015	- 0.51%
2016	8.71%
2017	14.74%

[1] Data for years prior to 2014 is not available. Information will be presented over ten years as it becomes available prospectively.

Schedule of Employer Contributions

For the Years Ended December 31, 2008 through 2017

(Dollars in Thousands)

Years Ended December 31	Actuarially Determined Contributions[1,2]	Actual Contributions[1,2]	Contribution Deficiency / (Excess)[3]	Covered Payroll	Contributions as a % of Covered Payroll
2008	$ 359,673	$ 360,365[3]	$ (692)	$ 1,526,113	23.61%
2009	337,496	338,387[3]	(891)	1,598,888	21.16%
2010	372,437	372,437	-	1,511,569	24.64%
2011	387,585	387,585	-	1,498,914	25.86%
2012	406,521	406,521	-	1,497,475	27.15%
2013	426,020	427,095[3]	(1,075)	1,494,745	28.57%
2014	476,320	625,520[3]	(149,200)	1,513,206	41.34%
2015	502,886	571,298[3]	(68,412)	1,521,036	37.56%
2016	521,447	567,196[3]	(45,749)	1,602,675	35.40%
2017	536,726[4]	572,104[3,4]	(35,378)	1,678,322	34.09%

[1] Excludes employer pickup of member contributions and transfers from County Investment Account (funded by pension obligation proceeds held by OCERS). Those transfers are as follows:

2009	$ 34,900
2010	11,000
2011	11,000
2012	5,500
2013	5,000
2014	5,000

[2] Reduced by discount for prepaid contributions

[3] Includes additional contributions made by Plan Sponsors towards the reduction of their UAAL.

[4] A $24,042 transfer from the Orange County Sanitation District Deferred UAAL Account, which was required to offset a UAAL increase for the assumption changes has been excluded from both these amounts.

Notes to the Required Supplementary Information

Actuarial Valuation Methods and Assumptions

The actuarial determined contribution rates in the schedule of employer contributions are calculated as of December 31. Rates are effective eighteen months after the valuation date for the fiscal year that begins July 1. The following actuarial methods and assumptions were used to calculate the actuarially determined contributions for the year ended December 31, 2017:

Valuation Date	Actuarially determined contribution rates for the first six months of calendar year 2017 or the second half of fiscal year 2016-2017 are calculated based on the December 31, 2014 valuation. Actuarially determined contribution rates for the last six months of calendar year 2017 or the first half of fiscal year 2017-2018 are calculated based on the December 31, 2015 valuation.
Actuarial Cost Method	Entry Age Actuarial Cost Method
Amortization Method	Level percent of payroll for total unfunded actuarial accrued liability
Remaining Amortization Period	Effective December 31, 2013, the outstanding balance of the UAAL from the December 31, 2012 valuation was combined and re-amortized over a declining 20-year period. Any changes in UAAL due to actuarial gains or losses or due to changes in assumptions or methods will be amortized over separate 20-year periods. Any changes in UAAL due to plan amendments will be amortized over separate 15-year periods and any change in UAAL due to early retirement incentive programs will be amortized over a separate period of up to 5 years.
Asset Valuation Method	The Actuarial Value of Assets is determined by recognizing any difference between the actual and the expected market return over a five-year period. The Valuation Value of Assets is the Actuarial Value of Assets reduced by the value of the non-valuation reserves.
Actuarial Assumptions:	
December 31, 2014 Valuation	
Investment Rate of Return	7.25% net of pension plan investment expense, including inflation
Inflation Rate	3.00%
Real Across-the-Board Salary Increase	0.50%
Projected Salary Increases	General: 4.25% to 13.50% and Safety: 5.00% to 17.50%, vary by service, including inflation
Cost of Living Adjustments	3.00% of retirement income
Other Assumptions	Same as those used in the December 31, 2014 funding actuarial valuation
December 31, 2015 Valuation	
Investment Rate of Return	7.25% net of pension plan investment expense, including inflation
Inflation Rate	3.00%
Real Across-the-Board Salary Increase	0.50%
Projected Salary Increases	General: 4.25% to 13.50% and Safety: 5.00% to 17.50%, vary by service, including inflation
Cost of Living Adjustments	3.00% of retirement income
Other Assumptions	Same as those used in the December 31, 2015 funding actuarial valuation

Significant Factors Affecting Trends in Actuarial Information – Pension Plan

Changes in Benefit Terms

2016

- New employees hired by the City of San Juan Capistrano on and after July 1, 2016 will be offered a choice in retirement plan formulas; the PEPRA Plan U (2.5% at 67 PEPRA – General) or the alternate plan formula, Plan W (1.62% at 65 PEPRA – General).
- Orange County Public Law Library was moved from Rate Group #3 into its own rate group, Rate Group #12.

2015

- Effective January 1, 2015, new OCTA employees will be enrolled in Plan U (2.5% at 67 PEPRA - General).

2012

- With the exception of OCTA, members with membership date on or after January 1, 2013 will be placed in PEPRA tiers: Plan T (1.62% at 65 PEPRA – General); Plan U (2.5% at 67 PEPRA – General); or Plan V (2.7% at 57 PEPRA – Safety).

2011

- Effective April 20, 2012, certain employees previously employed at the City of Santa Ana became employees of OCFA General and OCFA Safety and are eligible for benefits under Plan N (2 % at 55) and Plan F (3% at 50), respectively.
- Effective July 1, 2012, new General employees hired by the City of San Juan Capistrano will be covered under General Plan S (2% at 57).

2010

- LAFCO adopted an optional 1.62% of final average salary at age 65 for members hired on or after July 1, 2010.
- County Managers unit adopted an optional 1.62% of final average salary at age 65 for members hired on or after August 17, 2010.
- Sanitation District adopted a 1.64% of final average salary at age 57 for members within Supervisors and Professional unit hired on or after October 1, 2010.
- OCFA adopted a 3.00% of final average salary at age 55 for Safety members within the Executive Management unit hired on or after July 1, 2011 and for all Safety members hired on or after July 1, 2012.
- OCFA adopted a 2.00% of final average salary at age 55 for General members hired on or after July 1, 2011.

2009

- County and the Courts adopted optional 1.62% at 65 formula for General Member Employees entering OCERS after May 7, 2010.
- County Law Enforcement Members adopted 3% at 55 formula for Safety Members entering OCERS on or after April 9, 2010.

2007

- Vector Control District terminated their participation in OCERS effective January 4, 2007.
- Retirement formula for the Orange County Cemetery District changed to 2% at 55 effective December 7, 2007.

Significant Factors Affecting Trends in Actuarial Information – Pension Plan

(continued)

Changes in Assumptions and Methods

2017

- The assumed rate of return was decreased from 7.25% to 7.00%.
- The inflation rate was decreased from 3.00% to 2.75%.
- Projected salary increases for general members of 4.25% to 13.50% changed to 4.25% to 12.25% and safety members changed from 5.00% to 17.50% to 4.75% to 17.25%.
- Mortality rate tables changed to a Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table, projected generationally using two-dimensional MP-2016 scale, adjusted separately for healthy and disabled for both general and safety members.
- Impact due to assumption changes to be phased-in over three years.

2014

- The inflation rate was reduced from 3.25% to 3.00%.
- Total wage inflation and payroll growth was reduced from 3.75% to 3.50%.
- Projected salary increases for general members of 4.75% to 13.75% changed to 4.25% to 13.50% and safety members changed from 4.75% to 17.75% to 5.00% to 17.50%.
- Inclusion of additional cash-out assumptions in developing basic member contribution rates in the legacy plans.
- Mortality rates for after service retirement were changed to reflect longer life expectancies for Safety members and shorter life expectancies for General members and longer life expectancies for both General and Safety members for after disability retirement. The cost impact to employer to be phased in over three years.

2013

- The outstanding balance of the December 31, 2012 UAAL was combined and re-amortized over a 20-year period.

2012

- The investment rate of return was decreased from 7.75% to 7.25%.
- The inflation rate was decreased from 3.50% to 3.25%.
- Projected salary increases for general members of 4.50% to 11.50% changed to 4.75% to 13.75% and safety members changed from 4.50% to 13.50% to 4.75% to 17.75%.

2011

- Changes in mortality, disability, termination, retirement, salary scale, and annual pay-off assumptions in the December 31, 2010 triennial experience study increased the pension plan UAAL by $364 million.

2009

- Adjustments to correct the under-reporting of certain premium pay items in prior years' pensionable salary data resulted in a $228 million increase in UAAL.

2008

- Individual salary increase assumptions are changed from age based to service based.
- Annual leave payoff assumptions were increased for General members.

ORANGE COUNTY

OCERS

EMPLOYEES RETIREMENT SYSTEM

Section II

Financial

Other Supplementary Information

Schedule of Contributions

For the Year Ended December 31, 2017
(Dollars in Thousands)

	Employee	Employer
Pension Trust Fund Contributions		
County of Orange	$ 206,350	$ 420,500
Orange County Fire Authority	21,294	98,291[1]
Orange County Superior Court of California	15,300	30,423
Orange County Transportation Authority	8,926	24,310
Orange County Sanitation District	7,496	7,625
UCI Medical Center and Campus	-	2,948[2]
City of San Juan Capistrano	802	2,391
Orange County Children & Families Commission	86	2,015[3]
OCERS	901	1,960
Orange County Public Law Library	163	1,801[4]
Transportation Corridor Agencies	692	1,738
Orange County Department of Education	-	524[2]
Orange County In-Home Supportive Services Public Authority	112	204
Orange County Cemetery District	131	170
Orange County LAFCO	37	125
Orange County Mosquito & Vector Control	4	-
Contributions Before Prepaid Discount	262,294	595,025
Prepaid Employer Contribution Discount	-	(22,921)
Total Pension Trust Fund Contributions	**262,294**	**572,104**
Health Care Fund - County Contributions	**-**	**59,864**
Health Care Fund - OCFA Contributions	**-**	**2,380**
Total Contributions	**$ 262,294**	**$ 634,348**

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[1] Unfunded actuarial accrued liability payments were made in 2017 of $32.1 million for the Orange County Fire Authority.

[2] Unfunded actuarial accrued liability payments have been made in accordance with a separate 20-year level dollar payment schedule to include liabilities for employee benefits related to past service credit.

[3] Unfunded actuarial accrued liability payments were made in 2017 of $1.7 million for the Orange County Children & Family Commission.

[4] Unfunded actuarial accrued liability payments were made in 2017 for $1.5 million for the Orange County Public Law Library.

Schedule of Administrative Expenses

For the Year Ended December 31, 2017
(Dollars in Thousands)

Pension Fund Administrative Expenses	
Expenses Subject to the Statutory Limit	
Personnel Services	
Employee Salaries and Benefits	$ 9,933
Board Members' Allowance	16
Total Personnel Services	9,949
Office Operating Expenses	
Depreciation/Amortization	2,292
General Office and Administrative Expenses	1,300
Professional Services	1,240
Rent/Leased Real Property	568
Total Office Operating Expenses	5,400
Total Expenses Subject to the Statutory Limit	15,349
Expenses Not Subject to the Statutory Limit	
Information Technology Professional Services	1,171
Actuarial Fees	385
Equipment/Software	97
Total Expenses Not Subject to the Statutory Limit	1,653
Total Pension Fund Administrative Expenses	**17,002**
Health Care Fund - County Administrative Expenses	22
Health Care Fund - OCFA Administrative Expenses	27
Total Administrative Expenses	$ 17,051

Schedule of Investment Expenses

For the Year Ended December 31, 2017
(Dollars in Thousands)

Investment Management Fees *	
Global Public Equity:	
U.S. Equity	$ 2,932
Global Equity	451
Internatioal Equity	4,957
Emerging Markets Equity	4,292
Total Global Public Equity	12,632
Core Fixed Income:	
U.S. Fixed Income	974
Total Core Fixed Income	974
Credit:	
High Yield	2,362
Emerging Markets Debt	695
Direct Lending	3,000
Mortgage	4,460
Multi-Strategy	3,429
Non-U.S. Direct Lending	1,400
Total Credit	15,346
Real Assets:	
Real Estate	15,697
Real Return	
Timber	1,329
Agriculture	1,086
Infrastructure	5,703
Energy	882
Total Real Return	9,000
Total Real Assets	24,697
Absolute Return:	
Direct Hedge Fund	2,134
GTAA	1,406
Total Absolute Return	3,540
Private Equity	8,093
Risk Mitigation	5,166
Short-Term Investments	250
Total Investment Management Fees	**70,698**
Other Fund Expenses [1]	**7,459**
Other Investment Expenses	
Consulting/Research Fees	1,005
Investment Department Expenses	1,171
Legal Services	346
Custodian Services	438
Investment Service Providers	28
Total Other Investment Expenses	**2,988**
Security Lending Activity	
Security Lending Fees	399
Rebate Fees	1,531
Total Security Lending Activity	**1,930**
Total Investment Expenses	**$ 83,075**

Note: New schedule format for investment management fees to reflect the new investment allocation adopted in 2017.

* Does not include undisclosed fees deducted at source.

[1] These costs include, but are not limited to foreign income tax and other indirect flow-through investment expenses such as organizational expenses in limited partnership structures.

Schedule of Payments for Professional Services

For the Year Ended December 31, 2017
(Dollars in Thousands)

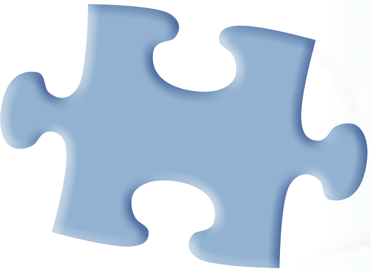
Type of Services *	
Professional Expenses Subject to the Statutory Limit	
Medical/Disability Services	$ 300
Legal Counsel	278
Administrative Services	159
Information Technology Services	155
Finance Services	134
Audit Services	126
Other Legal Services	80
Other Consulting/Services	8
Total Professional Expenses Subject to the Statutory Limit	**1,240**
Professional Expenses Not Subject to the Statutory Limit	
Information Technology Consultants	1,171
Consulting/Research Fees	1,005
Custodian Services	438
Actuarial Services	385
Investment Legal Services	346
Investment Service Providers	28
Total Professional Expenses Not Subject to the Statutory Limit	**3,373**
Total Payments for Professional Expenses	**$ 4,613**

* Detail for fees paid to investment professionals is presented in the Investment Section.

Statement of Changes in Assets and Liabilities - OPEB Agency Fund

For the Year Ended December 31, 2017
(Dollars in Thousands)

	Beginning Balance December 31, 2016	Additions	Deductions	Ending Balance December 31, 2017
Assets				
Cash and Cash Equivalents	$ 288	$ 927	$ (837)	$ 378
Global Public Equity	8,974	1,866	(215)	10,625
Core Fixed Income	5,432	240	(40)	5,632
Total Assets	**$ 14,694**	**$ 3,033**	**$ (1,092)**	**$ 16,635**
Liabilities				
Due to Employers	$ 14,694	$ 3,033	$ (1,092)	$ 16,635
Total Liabilities	**$ 14,694**	**$ 3,033**	**$ (1,092)**	**$ 16,635**



ORANGE COUNTY

OCERS

EMPLOYEES RETIREMENT SYSTEM

Section III

Investments

Orange County In-Home Supportive Services Public Authority (IHSS)

The Orange County In-Home Supportive Services Public Authority provides the elderly, blind, and individuals with disabilities assistance in finding a pre-screened homecare provider who will enable them to live independently and remain safely in their homes. Services may include house cleaning, shopping, cooking, laundry and personal care services, such as help with bathing, grooming and dressing. A social worker will work with the individual in need of in-home care services by performing a needs assessment to determine the types of services needed. Once the individual's needs have been assessed, resources will be provided to help the individual in finding and hiring an appropriate homecare provider.

Investment Consultant's Statement

MEMORANDUM

To: Board Members, Orange County Employees Retirement System

From: Stephen McCourt, Laura Wirick, Holly Heiserman-Biertuempfel
Meketa Investment Group

Date: April 9, 2018

Re: Investment Consultant's Statement for CAFR

This letter reviews the investment performance of the Orange County Employees Retirement System (OCERS) for the year ending December 31, 2017.

OCERS' stated mission is to provide secure retirement and disability benefits with the highest standards of excellence. To this end, OCERS strives to align the portfolio's asset allocation, investments, and other related decision with the goals of the overall system. This alignment is a fundamental part of the Investment Committee's monthly meetings, where performance is examined (both on an overall portfolio basis and at the manager level), asset allocation is reviewed and modified to fit changes in expected return, strategic and tactical decisions are discussed, and the System's liabilities are reviewed. Meketa Investment Group, OCERS' general consultant, works in concert with PCA, OCERS' risk consultant, to provide guidance to the Board (the System's fiduciary), and assist the Board with performance evaluation, asset allocation, manager selection, and other industry best practices.

State Street Bank and Trust Company, OCERS' custodian, independently prepared the performance data used in this report. Rates of return are represented using a time-weighted rate of return methodology based upon market values.

2017 YEAR IN REVIEW

Emerging and international markets were strong in the first quarter of 2017, with the MSCI Emerging Markets Index (equity) and MSCI EAFE Index (equity) returning 11.4% and 7.2%, respectively. Emerging market debt and domestic equity also showed strength, while commodities were the only major asset class to post negative returns. The Federal Reserve made their third 0.25% rate increase in March (0.75% to 1.00%). Also in March, the Bank of Japan (BOJ) and the European Central Bank (ECB) made no changes to their respective stimulative efforts, both keeping bank deposit rates negative and targeting 0% yields on key interest rates. The Federal Reserve, BOJ, and ECB actions highlighted the divergence of policy among major central banks. China's economy grew slightly above expectations in the first quarter (6.9% versus 6.8%), driven in part by the construction industry's high demand for steel. Corporate debt levels, a hot property market, capital outflows, and the relationship with the new U.S. administration were key issues for the world's second largest economy.

Investment Consultant's Statement

(continued)

In the second quarter, markets continued first quarter themes; emerging and international equity markets posted strong returns, with the MSCI Emerging Markets Index and MSCI EAFE Index returning 6.3% and 6.1%, respectively. Domestic equities continued to show strength, and commodities lagged substantially, with the Bloomberg Commodity Index returning -3.0%. For the first time in six years, the International Monetary Fund (IMF) increased their forecast for global growth (from 3.4% to 3.5%), citing improvements in manufacturing, trade, and investment, but they warned that downside risks related to potential protectionist trade policies and structural issues remained. A further global growth forecast increase to 3.6% was projected to take place in 2018.

Expectations for continued low interest rates helped emerging markets, resulting in a third quarter of strength; the MSCI Emerging Markets returned 7.9% in the third quarter, outperforming all other major asset classes. Commodities continued to trail other asset classes, but ended the third quarter with a slightly positive return.

In the fourth quarter, emerging market equities again led the world markets, with the MSCI Emerging Markets returning 7.4% and outperforming the S&P 500, which returned 6.6% over the same period. Commodities rebounded, with the Bloomberg Commodity Index returning 4.7%. Fixed income lagged other asset classes, with the Bloomberg Barclays Aggregate, Bloomberg Barclays High Yield, and the JPM GBI-Emerging Markets Global Diversified Local Index all returning less than 1.0%.

2018 OUTLOOK

Looking forward to 2018, growth is expected to continue. Global growth forecasts for 2018 and 2019 were revised upward by the IMF, due to the recent U.S. tax legislation and accelerating growth. The IMF forecasted increases in Japan and Europe, due to higher domestic and foreign demand. Medium-term risks remain, including the potential for a correction in financial markets and higher than expected inflation and interest rates. Projections for emerging economy growth remain unchanged for 2018 (4.9%) and 2019 (5.0%), with wide variations across countries.

Four primary concerns currently face the global economy. First, the potential for simultaneous monetary tightening globally. Since the Global Financial Crisis (GFC), central banks worldwide have attempted to support markets and the economy through low interest rates and bond-purchasing programs (i.e., quantitative easing). Total balance sheets have close to doubled since the GFC and equal over 40% of aggregate GDP. The U.S. has been increasing rates and reducing its balance sheet, with other central banks likely to follow shortly. Simultaneous tightening across central banks could lead to higher interest rates, less liquidity, and overall slower economic activity

Second, there is uncertainty related to U.S. policies. The U.S. has experienced largely stable growth since the end of the financial crisis, but at levels below prior recoveries. Inflation and wage growth remain low despite the declining unemployment rate. Recent tax legislation could lead to more growth, but also higher inflation and tightening from the Fed. The question remains whether the U.S. needs additional stimulus this late in the economic cycle. Political gridlock in Washington and uncertainty related to the administration's policies, particularly regarding trade, remain other key issues.

Third, declining growth in China, along with uncertain fiscal and monetary policies could impact the global markets. Over the coming years, China will likely continue to manage a repositioning and slowing of its economy, which could have a meaningful impact on countries that depend on its trade. Uncertainties related to the policies of the recently elected officials at the Communist Party's congress and the growing debt, particularly corporate, remain key issues. Another devaluation of the yuan could disrupt capital markets, weigh on domestic demand, and hurt countries with competing exports.

Fourth, political uncertainty in Europe and risks related to the U.K.'s exit from the European Union could have a substantial impact on international developed economies. The referendum in Catalonia Spain and the elections in Germany showed that political uncertainties remain in Europe. The on-going negotiations of the U.K. to leave the EU is another key issue. Uncertainty related to the outcome of negotiations should weigh on foreign investment and consumption. Any moves by other countries to leave the EU, or the Eurozone, would be disruptive to markets and growth.

OCERS 2017 PERFORMANCE

OCERS' portfolio returned 14.5% in 2017, outperforming the Policy Index return of 13.7%, and the System's 7.25% required actuarial rate of return. For 2017, OCERS was in the 78th percentile[1] compared to peers. Emerging Market Equity had the strongest absolute performance of all asset classes, returning 43.2%, and outperforming the MSCI Emerging Market return of 37.3%, while the Treasury Inflation Protected Securities ("TIPS") asset class had the weakest 2017 performance of 3.6%, outperforming the Bloomberg Barclays U.S. TIPS Index, which returned 3.0% over the same period.

Over the trailing three- and five-year periods, the OCERS portfolio returned 7.5% and 7.6% on average annually, underperforming the Policy Index returns of 7.8% and 8.2%, respectively. For the trailing three years, OCERS was in the 72nd percentile compared to peers, and over the trailing five years, OCERS was in the 83rd percentile compared to peers.

A new asset allocation was adopted by the Investment Committee at the beginning of 2017. The goals of the new asset allocation included simplifying the portfolio, lowering investment management fees, and focusing on drivers of risk and return going forward.

If you have any questions, please contact us at (760) 795-3450.

SPM/LW/HH/mps

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[1] Based on InvestorForce peer rankings: Defined Benefit Public Funds over $1 billion in assets.

Investment Returns

The table below details the annualized rates of return for the different asset categories over various time periods ended December 31, 2017. The returns for each asset class represent the composite returns of all the manager portfolios within the asset class. All returns are net of fees, which is a change from the reporting in prior years when only indirect or at source fees were deducted from the returns being presented. The method of computation of investment returns is time-weighted approximation.

	1 Year	3 Year	5 Year
Global Public Equity (%)	**26.01**	**10.15**	**11.58**
MSCI ACWI Index (%)	24.62	9.89	11.40
Private Equity (%)	**14.05**	**11.44**	**12.64**
Cambridge Private Equity Lagged	14.56	9.68	12.84
Core Fixed Income (%)	**5.05**	**2.81**	**1.72**
Bloomberg Barclays Capital Universal Index (%)	3.54	2.24	2.10
Credit (%)	**9.08**	**7.19**	**7.35**
Credit Custom Index(1) (%)	5.86	5.46	5.08
Real Assets (%)	**N/A**	**N/A**	**N/A**
Real Assets Custom Index(2) (%)	N/A	N/A	N/A
Real Return (%)	**1.90**	**1.66**	**-0.08**
Real Return Custom Index(3) (%)	9.42	7.76	6.92
Real Estate (%)	**6.62**	**11.79**	**11.80**
Real Estate Custom Index(4) (%)	7.62	9.57	10.71
Risk Mitigation (%)	**N/A**	**N/A**	**N/A**
Risk Mitigation Custom Index(5) (%)	N/A	N/A	N/A
Short Term Investments (%)	**1.32**	**0.72**	**0.62**
Cash Overlay (%)	**14.13**	**6.47**	**7.05**
91-day Treasury Bill (%)	0.86	0.41	0.27
Total Fund (%)	**14.51**	**7.47**	**7.58**
Composite Policy Benchmark(6) (%)	13.73	7.86	8.17

(1) Credit Custom Index = 50% Merrill Lynch HY Constrained + 50% CS Levered Loan

(2) Real Assets Custom Index = 45% NCREIF ODCE Index/ 36% Cambridge Private Equity Energy Lagged/ 13% Cambridge Infrastructure Index L/ 6% NCREIF Farmland Index

(3) Real Return Custom Index =60% Bloomberg Barclays U.S. TIPS Index + 40% (CPI + 5%) through 6/30/12, CPI + 5% through 6/30/14, CPI + 3% through 6/30/16; and 10% NCREIF Farmland Index + 25% S&P GSCI Index + 15% NCREIF Timberland Index + 50% Cambridge Private Equity Energy Lagged thereafter

(4) Real Estate Custom Index = 90% NCREIF Total Index + 10% FTSE EPRA/NAREIT Global Real Estate Index through 6/30/12, 90% NCREIF ODCE Index + 10% FTSE EPRA/NAREIT Developed Real Estate Ex-U.S. Index through 12/31/16, and 100% NCREIF ODCE Index thereafter

(5) Risk Mitigation Custom Index = 50% HFRI MACRO: Systematic Diversified CTA + 50% Bbloomberg Barclays Long Term U.S. Treasury Index

(6) Policy Benchmark = 13.0% Russell 1000 Index + 2% Russell 2000 Index + 7.0% MSCI EAFE Index + 5.0% MSCI World Index + 6.0% MSCI Emerging Markets Equity Index + 2% MSCI EAFE Small Cap Equity Index + 10.0% Bloomberg Barclays U.S. Universal Index + 7.0% ML HY Constrained + 7.0% CS Leveraged Loan + 7% HFRI Fund of Fund Index + 2 1/3% HFRI Macro Index + 2 1/3% MSCI ACWI Index + 2 1/3% Bloomberg Barclays Multiverse Index + 4% Cambridge Private Equity Energy Lagged + 2% S&P GSCI Index + 1.2% NCREIF Timberland Index + 0.8% NCREIF Farmland Index + 10.0% NCREIF ODCE Index + 6% Cambridge Private Equity Lagged + 1.95% JPMorgan GBI-EM Global Diversified Un-hedged + 1.05% JPMorgan EM Bond Index

N/A - Represents new investment class and custom index in 2017; data not available.

Statement of Investment Objectives and Policies

General

The primary goal of the Orange County Employees Retirement System's investment program is to provide Plan participants with retirement benefits as required by the County Employees Retirement Law of 1937. This goal is accomplished through Plan Sponsors' and Plan participants' contributions and the implementation of a carefully planned and monitored long-term investment program. The Board of Retirement (with the participation of the Investment Committee, staff and advisors) has exclusive control of all investments of the Plan and is responsible for the establishment of investment objectives, strategies and policies.

The Board of Retirement is authorized to invest in any form or type of investment deemed prudent in the informed opinion of the Board. The Board has adopted an Investment Policy Statement that provides a frame work for the management of OCERS' investments. This purpose of the Investment Policy Statement is to assist the Investment Committee in effectively supervising, monitoring, and evaluating the investment of the system's assets.

Investment Objectives

The overall objective is to invest the assets of the system solely for the benefit of plan participants and beneficiaries while attempting to minimize employer contributions and investment and administration costs. The long-term performance objective for the portfolio is to exceed the actuarially assumed rate of return net of fees and expenses, with a secondary objective of exceeding the return on an appropriate designated balanced index mutual fund over a complete economic cycle and relevant longer periods, also net of fees and expenses.

Strategic Asset Allocation Policy and Maintenance

A pension fund's strategic asset allocation policy, implemented in a consistent and timely manner, is generally recognized to have the most impact on a fund's investment performance. The asset allocation policy determines a fund's optimal long-term asset class mix (target allocation). This policy is expected to achieve a specific set of investment goals, such as risk and return objectives. The policy also establishes ranges around the targeted levels, which assets levels are permitted to fluctuate. Fluctuations outside the permitted range act as triggers for reallocating assets to ensure adherence to targeted weights.

Program Administration and Manager Structure

For each major asset class, the System shall diversify assets by employing managers with demonstrated skill in their particular areas of expertise. The System will retain managers who utilize varied investment approaches and allocate assets in a manner that is consistent with the overall strategic plan. For example, the sum of all domestic equity managers should exhibit characteristics that are similar, but not necessarily identical, to the overall equity market. When asset fluctuation causes the asset class to exhibit characteristics that are dissimilar from the plan, staff shall direct cash flows to or from the various managers so that actual characteristics are consistent with the plan.

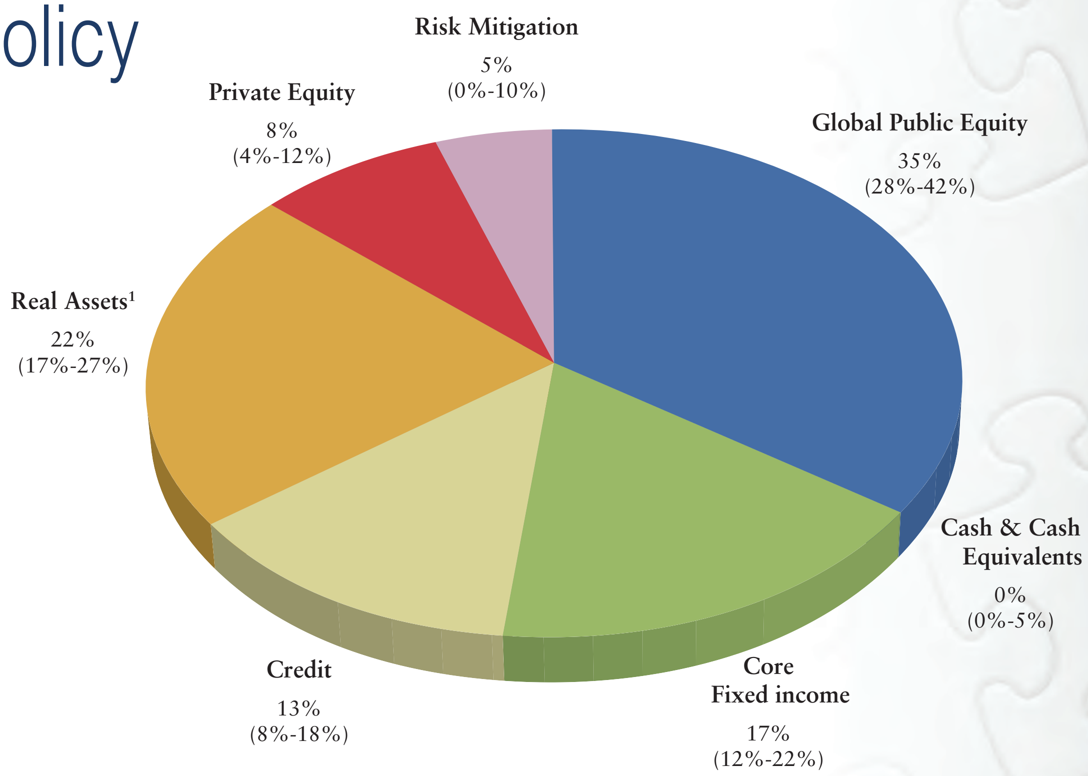
Use of Proxies

OCERS utilizes the services of Institutional Shareholder Services (ISS) to vote public equity proxies on OCERS' behalf. ISS is solely responsible for voting all proxies for securities, consistent with the ISS Benchmark Policy, as approved by the Board of Retirement. If the ISS Benchmark Policy does not contain recommended voting guidelines for the subject of the proxy vote, ISS will contact OCERS for guidance prior to casting the vote to ensure proxy votes are in accordance with OCERS' guidelines to protect and enhance returns on behalf of plan participants.

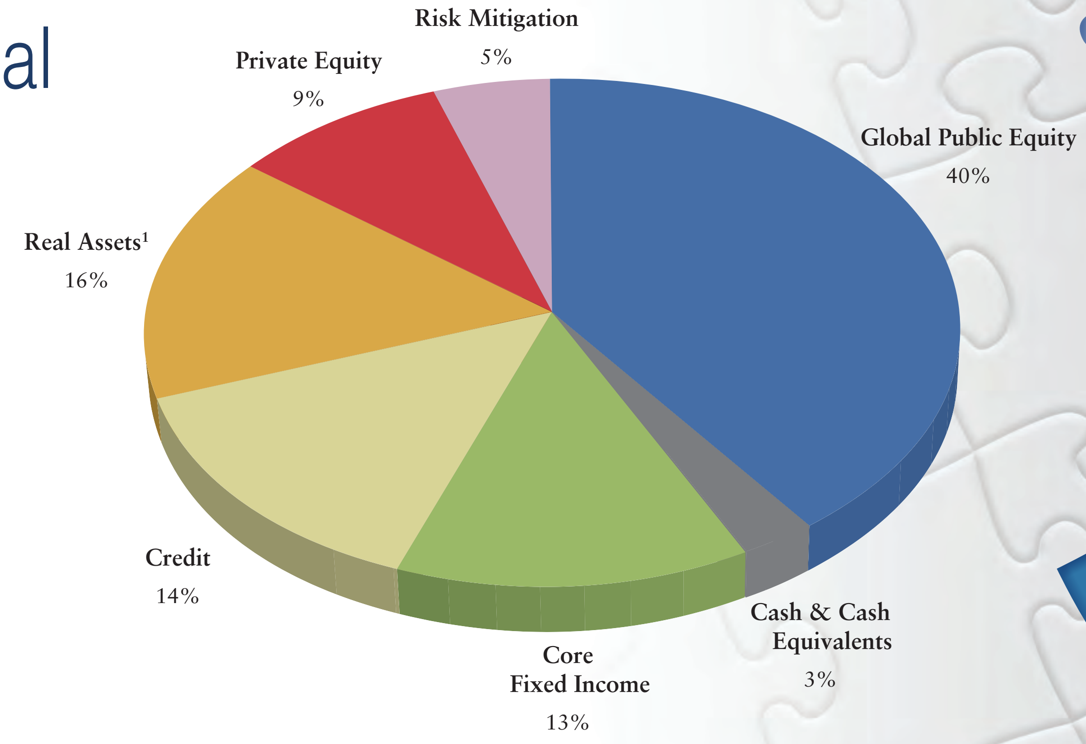
Asset Diversification

December 31, 2017

Policy



Actual



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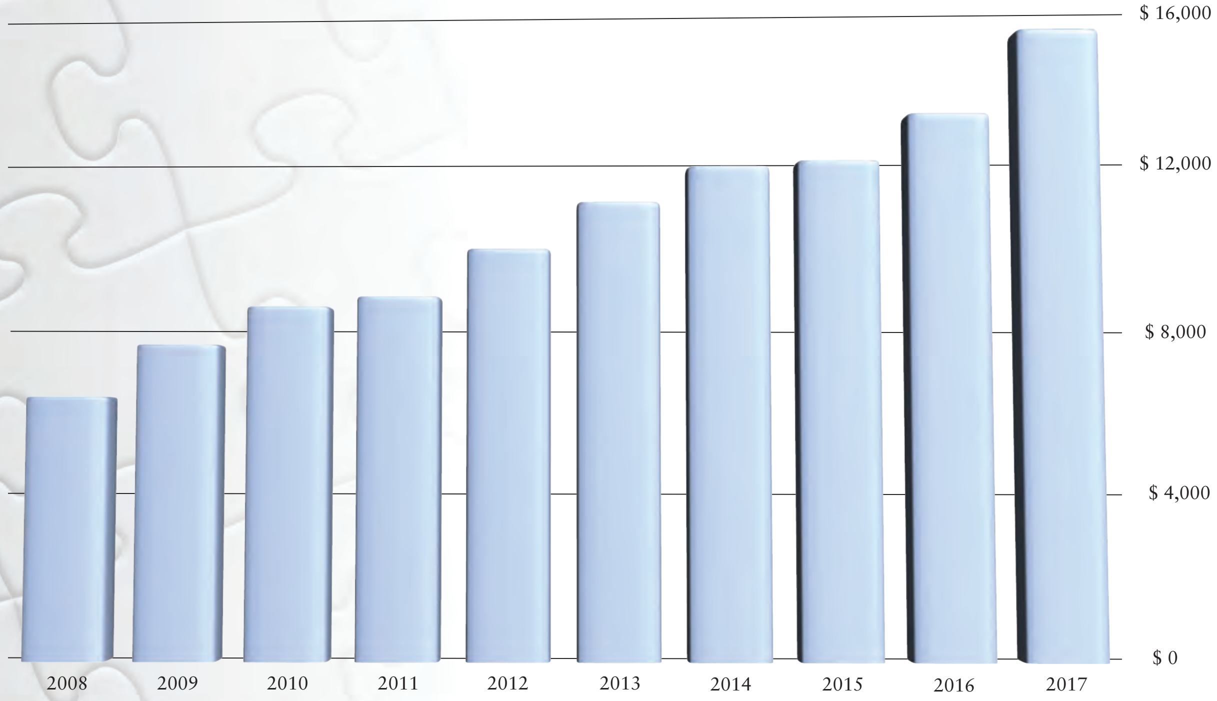
[1] A new asset allocation was adopted on January 25, 2017 with target ranges approved on March 28, 2017. Real Assets is temporarily under the minimum range since the new asset allocation increased the target for Real Assets from 18% to 22%.

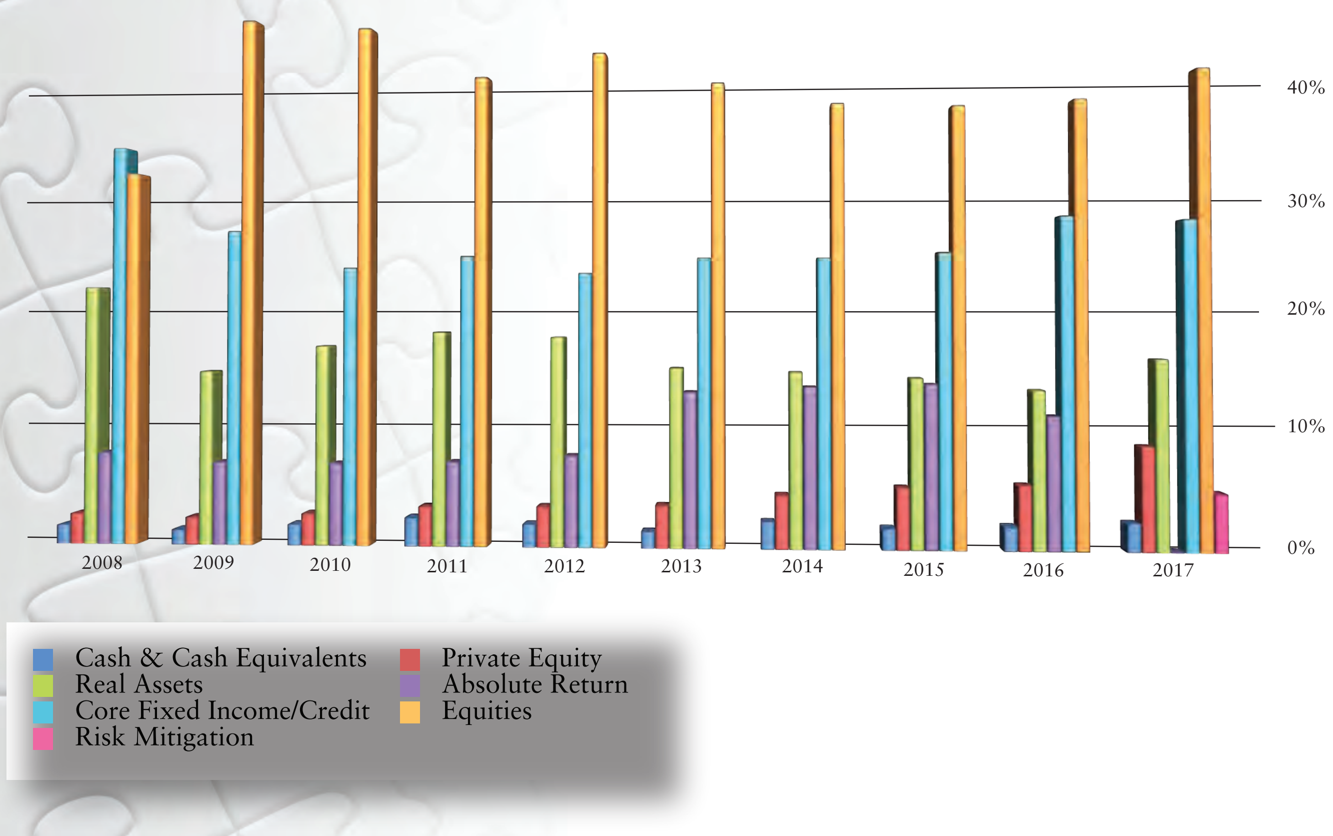
Growth of System Net Investments at Fair Value

For the Ten Years Ended December 31, 2017
(in Millions of Dollars)



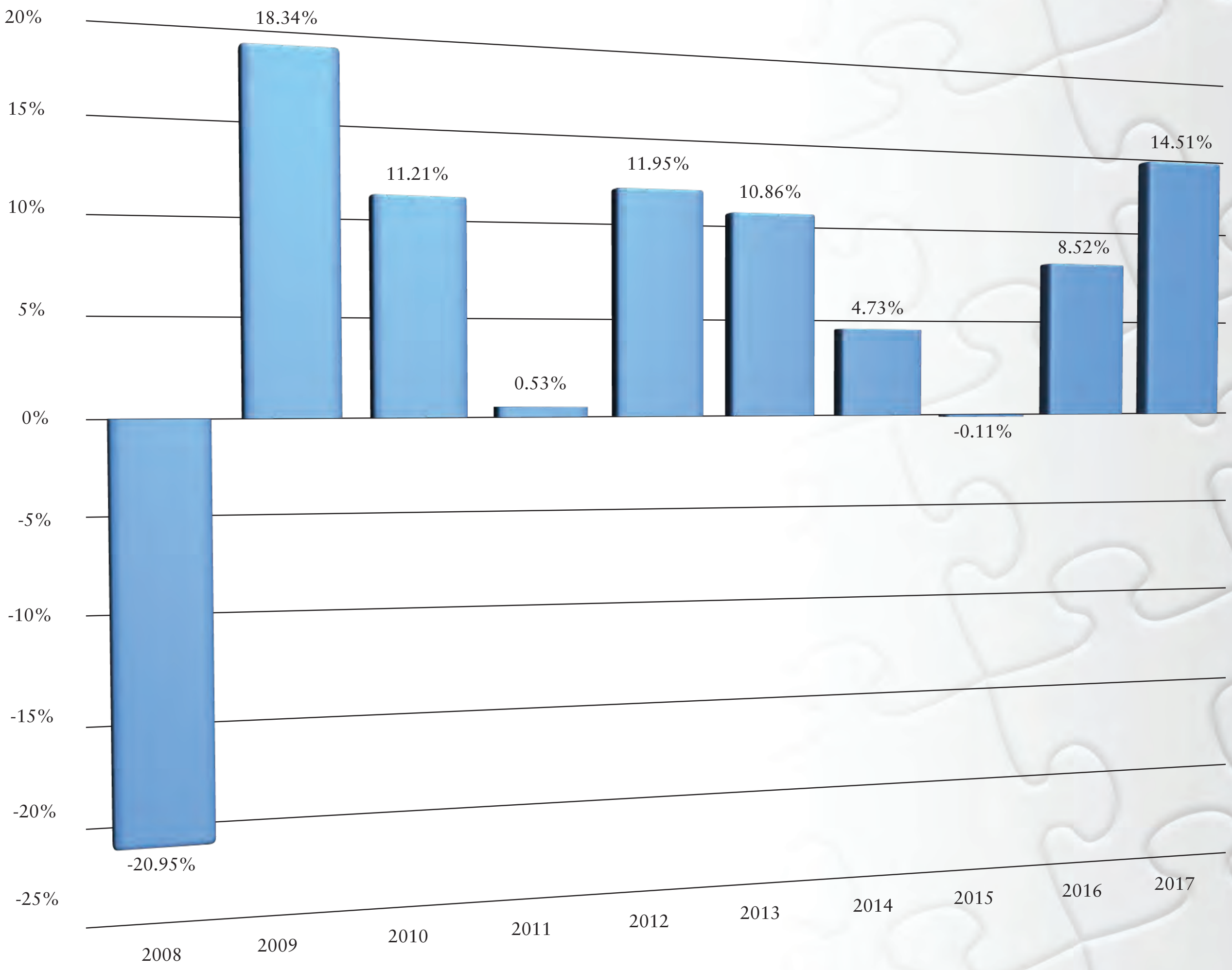
Historical Asset Allocation

December 2008 - December 2017
(Actual)



History of Performance - Net

December 2008 - December 2017
(Actual)



All History of Performance rates of returns have been recalculated from the prior years reporting to report net of all fees. In prior years, the rates of returns in the above schedule included indirect or at source fees, but excluded other direct fees.

Schedule of Commissions

For the Year Ended December 31, 2017
(Amounts in Thousands)

Broker Name	Number of Shares Traded	Commission per Share (in cents)	Total Commission
Barclays Capital Inc.	830	1.34	$ 11
Citigroup Global Markets, Inc.	9,415	0.34	32
CLSA	537	0.62	3
Credit Suisse Securities	5,175	0.48	25
Deutsche Bank	5,704	0.35	20
Goldman Sachs	15,593	0.32	51
Instinet	9,776	0.20	20
Investment Technology Group	962	0.92	9
J.P. Morgan Securities	1,425	1.01	14
Jefferies	1,208	1.16	14
Liquidnet	612	0.84	5
MacQuarie	757	1.13	9
Merrill Lynch & Company, Inc.	14,652	0.36	53
Morgan Stanley & Company, Inc.	21,070	0.42	88
Redburn (Europe) Limited	664	0.68	4
Sanford C. Bernstein And Co., LLC	1,309	0.81	11
Societe Generale	877	0.76	7
UBS	8,110	0.74	60
Other*	6,571	1.68	110
Total	**105,247**	**0.52**	**$ 546**

* Other includes 80 additional firms that comprise approximately 20% of total commissions and approximately 6% of the total number of shares traded. The average commission per share is 1.68 cents.

Commission Recapture Program

OCERS implemented a direct brokerage program where investment managers can trade with specific brokerage firms for the purpose of reducing trading commissions. The brokerage firms utilized for these services are Abel Noser, Capital Institutional Services, Convergex Execution Solutions LLC, and State Street Bank.

Schedule of Investment Expenses and Investment Summary

For the Year Ended December 31, 2017
(Dollars in Thousands)

Type of Investment Expenses	Assets Under Management at Fair Value	Percentage	Fees
Investment Management Fees *			
Investments at Fair Value:			
Global Public Equity	$ 6,123,481	40%	$ 12,632
Core Fixed Income	2,056,078	14%	974
Credit	2,011,759	14%	15,346
Real Assets	2,471,818	17%	24,697
Absolute Return	2,400	0%	3,540
Private Equity	1,345,230	9%	8,093
Risk Mitigation	743,691	5%	5,166
Total Investments at Fair Value	14,754,457		70,448
Short-Term Investments[1]	122,980	1%	250
Total Investment Management Fees	**$ 14,877437**	**100%**	**70,698**
Other Fund Expenses[2]			**7,459**
Other Investment Expenses			
Consulting/Research Fees			1,005
Investment Department Expenses			1,171
Legal Services			346
Custodian Services			438
Investment Service Providers			28
Total Other Investment Expenses			**2,988**
Securities Lending Activity			
Securities Lending Fees			399
Rebate Fees			1,531
Total Securities Lending Activity			**1,930**
Total Investment Expenses			**$ 83,075**

* The table above does not include undisclosed fees deducted at source or the fair value of OPEB 115 Agency Funds held by OCERS in an investment capacity.

[1] Short-Term Investments are categorized as Cash and Cash Equivalents in the Statement of Fiduciary Net Position.

[2] These costs include, but are not limited to foreign income tax and other indirect flow-through investment expenses such as organizational expenses in limited partnership structures.

Schedule of Largest Equity Holdings

(by Fair Value) [1, 2]

As of December 31, 2017
(Amounts in Thousands)

Common Stock	Shares	Fair Value
Roche Holding AG	36	$ 9,113
Nestle SA Reg	90	7,766
Oneok Inc	140	7,481
Enel Spa	1,214	7,481
Novo Nordisk A/S B	120	6,488
ASML Holding NV	37	6,362
Coherent Inc	22	6,321
LVMH Moet Hennessy Louis Vui	20	5,892
SMC Corp	13	5,496
Safran SA	53	5,492

Schedule of Largest Fixed Income Holdings

(by Fair Value) [1]

As of December 31, 2017
(Amounts in Thousands)

Asset	CPN/ Maturity	Fair Value
SWPC0G796 CDS USD R F 1.00000	1.0% / 12-20-2022	$ 33,786
US TREASURY N/B	1.6% / 08-31-2022	24,674
BWU00MID2 IRS GBP R V 06MLIBOR	1.0% / 03-21-2023	21,103
US TREASURY N/B	2.0% / 05-31-2024	19,126
FNMA TBA 30 YR 3	3.0% / 02-13-2048	17,777
FNMA TBA 30 YR 3.5	3.5% / 03-13-2048	13,613
BWU00IN86 IRS USD R V 03MLIBOR	1.6% / 12-21-2023	13,100
US TREASURY N/B	2.3% / 08-15-2027	12,009
BWU00IN03 IRS USD R V 03MLIBOR	1.6% / 12-21-2018	11,600
BWU00INA1 IRS USD R V 03MLIBOR	1.6% / 12-21-2026	11,540

[1] A complete list of portfolio holdings is available for review at the OCERS' office.
[2] The holding schedules pertain to holdings of individual securities; they do not reflect OCERS' investments in commingled funds.

List of Investment Managers

As of December 31, 2017

Absolute Return

Archer Capital Management
Fore Research & Management
Ionic Capital Management
Perry Capital
Venor Capital Management

Cash Overlay

Parametric

Credit

Beach Point Capital Management
BlueBay Asset Management
Brigade Capital Management
Caspian Capital Advisors
CQS Capital Management
Crescent Capital Group
Cross Ocean Partners
Hayfin Capital Management
Loomis, Sayles, & Company
Monroe Capital
NXT Capital
Pacific Investment Management Company
Pharo Management
Pictet Asset Management
Tennenbaum Capital Partners, LLC
Tricadia Capital Management

Core Fixed Income

BlackRock Institutional Trust Company
Dodge & Cox
Mondrian Investment Partners, Ltd.
Pacific Investment Management Company

Global Public Equity

Acadian Asset Management
AQR Capital Management, LLC
BlackRock Institutional Trust Company
Capital Guardian Trust Company
City of London
Eagle Asset Management
Fidelity Institutional Asset Management
Franklin Templeton Investments
Gotham Asset Management
Highfields Capital
J.P. Morgan Asset Management
Mercator Asset Management
Mondrian Investment Partners, Ltd.
William Blair & Co.

Private Equity

Abbott Capital
Adams Street Partners
Alcentra Clareant European Direct Lending
HarbourVest Partners, LLC
Mesirow Financial Private Equity
Monroe Capital
OCP Asia
Pantheon Ventures
Park Square Capital

Real Assets

AEW Capital Management
Angelo Gordon & Co.
Argo Capital Platform
ASB Capital Management
BlackRock Institutional Trust Company
Brigade Capital Management
BTG Pactual
CB Richard Ellis Investors
EIG Global Energy Partners
Encap
EnerVest, Ltd
Hancock Agricultural Investment Group
Hancock Timber Resource Group
J.P. Morgan Asset Management
Jamestown
Kayne Anderson Capital Advisors
KTR Industrial
Morgan Stanley
Oaktree Capital Management
Pacific Investment Management Company
Tennenbaum Capital Partners, LLC
True North Management Group
UBS Farmland Investors LLC
Waterton Associates
Westbrook Real Estate Fund X, L.P.

Risk Mitigation

BlackRock Institutional Trust Company
Bridgewater Associates, Inc.
D.E. Shaw Group

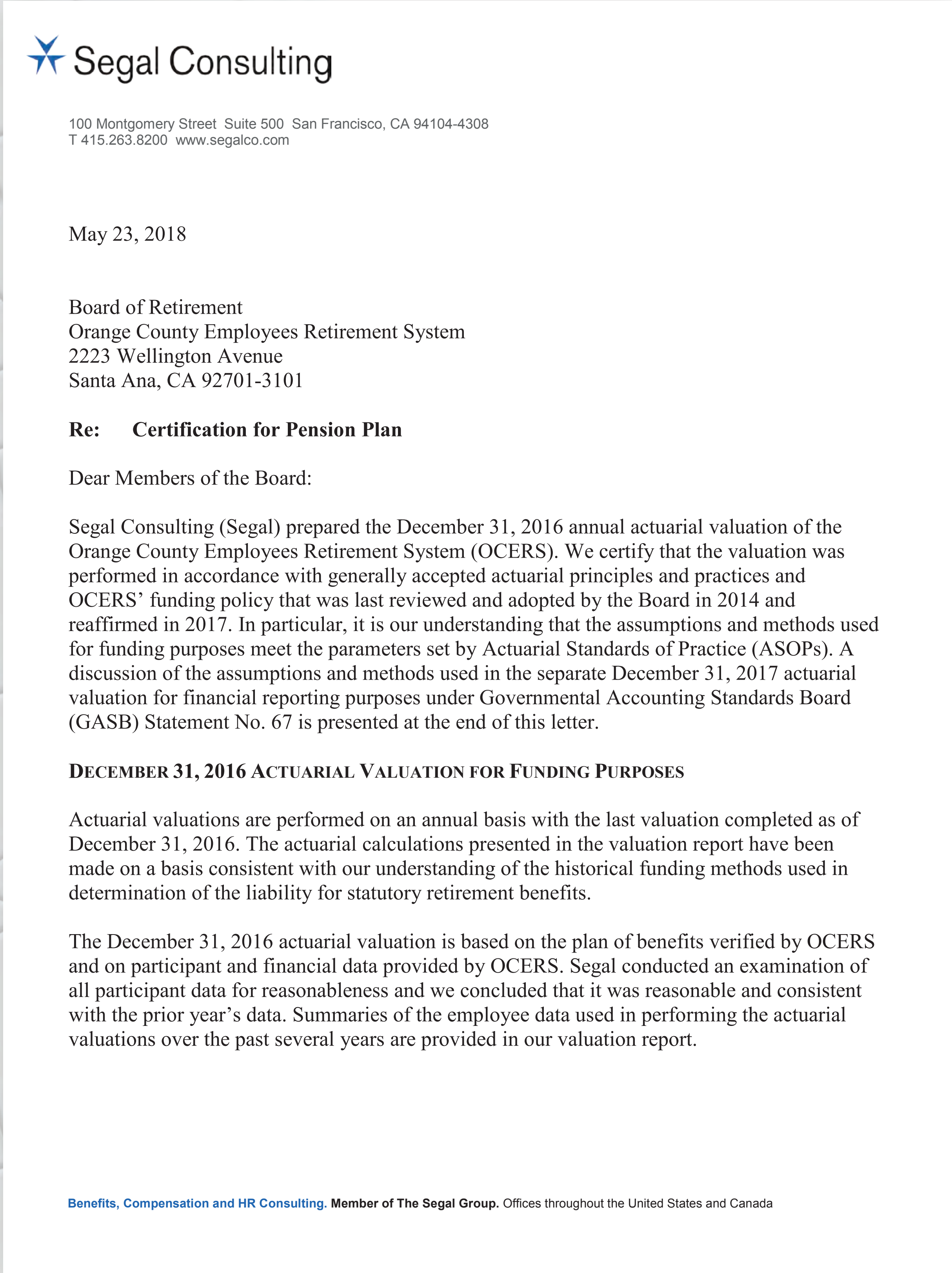
Section IV

Actuarial

Children and Families Commission of Orange County (CFCOC)

The Children and Families Commission of Orange County provides education, health and child development programs for children from the prenatal stage through age five. Funded by Proposition 10, which added a 50-cent tax on tobacco products sold in California, CFCOC's funded programs include prenatal care; pediatric primary and specialty health care; health and developmental screenings, including dental and vision; early literacy programs; homeless prevention; and other early intervention services as needed to maximize each child's potential. CFCOC's goal is to ensure all children are healthy and ready to learn when they enter school.

Actuary's Certification Letter



Segal Consulting

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T 415.263.8200 www.segalco.com

May 23, 2018

Board of Retirement
Orange County Employees Retirement System
2223 Wellington Avenue
Santa Ana, CA 92701-3101

Re: Certification for Pension Plan

Dear Members of the Board:

Segal Consulting (Segal) prepared the December 31, 2016 annual actuarial valuation of the Orange County Employees Retirement System (OCERS). We certify that the valuation was performed in accordance with generally accepted actuarial principles and practices and OCERS' funding policy that was last reviewed and adopted by the Board in 2014 and reaffirmed in 2017. In particular, it is our understanding that the assumptions and methods used for funding purposes meet the parameters set by Actuarial Standards of Practice (ASOPs). A discussion of the assumptions and methods used in the separate December 31, 2017 actuarial valuation for financial reporting purposes under Governmental Accounting Standards Board (GASB) Statement No. 67 is presented at the end of this letter.

DECEMBER 31, 2016 ACTUARIAL VALUATION FOR FUNDING PURPOSES

Actuarial valuations are performed on an annual basis with the last valuation completed as of December 31, 2016. The actuarial calculations presented in the valuation report have been made on a basis consistent with our understanding of the historical funding methods used in determination of the liability for statutory retirement benefits.

The December 31, 2016 actuarial valuation is based on the plan of benefits verified by OCERS and on participant and financial data provided by OCERS. Segal conducted an examination of all participant data for reasonableness and we concluded that it was reasonable and consistent with the prior year's data. Summaries of the employee data used in performing the actuarial valuations over the past several years are provided in our valuation report.

We did not audit the System's financial statements. For actuarial valuation purposes, Plan assets are valued at actuarial value. Under this method, the assets used to determine employer contribution rates take into account market value by recognizing the differences between the actual and expected return on market value over a five-year period. The development of the actuarial value as of December 31, 2016 is provided in the Development of Actuarial and Valuation Value of Assets.

One funding objective of the Plan is to establish rates, which, over time, will remain level as a percentage of payroll unless Plan benefit provisions are changed. Actuarial funding is based on the Entry Age Cost Method. Under this method, the employer contribution rate provides for current cost (normal cost) plus a level percentage of payroll to amortize any unfunded actuarial accrued liability (UAAL). One of the funding objectives of the System is to reduce that UAAL to zero over a declining period. Effective December 31, 2013, the outstanding balance of the UAAL from the December 31, 2012 valuation was combined and reamortized over a declining 20-year period. Any changes in UAAL due to actuarial gains or losses or due to changes in assumptions or methods will be amortized over separate 20-year periods. Any changes in UAAL due to plan amendments will be amortized over separate 15-year periods and any change in UAAL due to early retirement incentive programs will be amortized over a separate period of up to 5 years. The progress being made toward the realization of the financing objectives through December 31, 2016 is illustrated in the Schedule of Funding Progress.

Segal prepared all of the supporting schedules in the actuarial section of the System's Comprehensive Annual Financial Report (CAFR) based on the results of the December 31, 2016 actuarial valuation for funding purposes. A listing of the supporting schedules related to the statutory retirement plan benefits that Segal prepared for inclusion in the actuarial section of the System's CAFR is provided below. OCERS' staff prepared the remaining trend data schedules in the statistical section.

Actuarial Section (Based on December 31, 2016 Funding Valuation)

1. Schedule of Funding Progress
2. History of Employer Contribution Rates
3. Summary of Active Membership
4. Summary of Retired Membership
5. Development of Actuarial and Valuation Value of Assets
6. Short-Term Solvency Test

7. Actuarial Methods and Assumptions
8. Summary of Major Plan Provisions
9. Experience Analysis

The valuation assumptions used in this valuation were included in the Actuarial Section. The results of this valuation were prepared using the actuarial assumptions and methods developed in the triennial experience study and the economic assumptions study as of December 31, 2013. All of the assumptions recommended in those studies, including the alternative 3.00% inflation assumption discussed during subsequent presentations, were adopted by the Board. Actuarial valuations are performed on an annual basis and the experience analysis is performed every three years. The most recent actuarial experience study as of December 31, 2016 has been adopted by the Board and any changes in assumptions, including the alternative 2.75% inflation assumption discussed during subsequent presentations, will be reflected in the December 31, 2017 valuation.

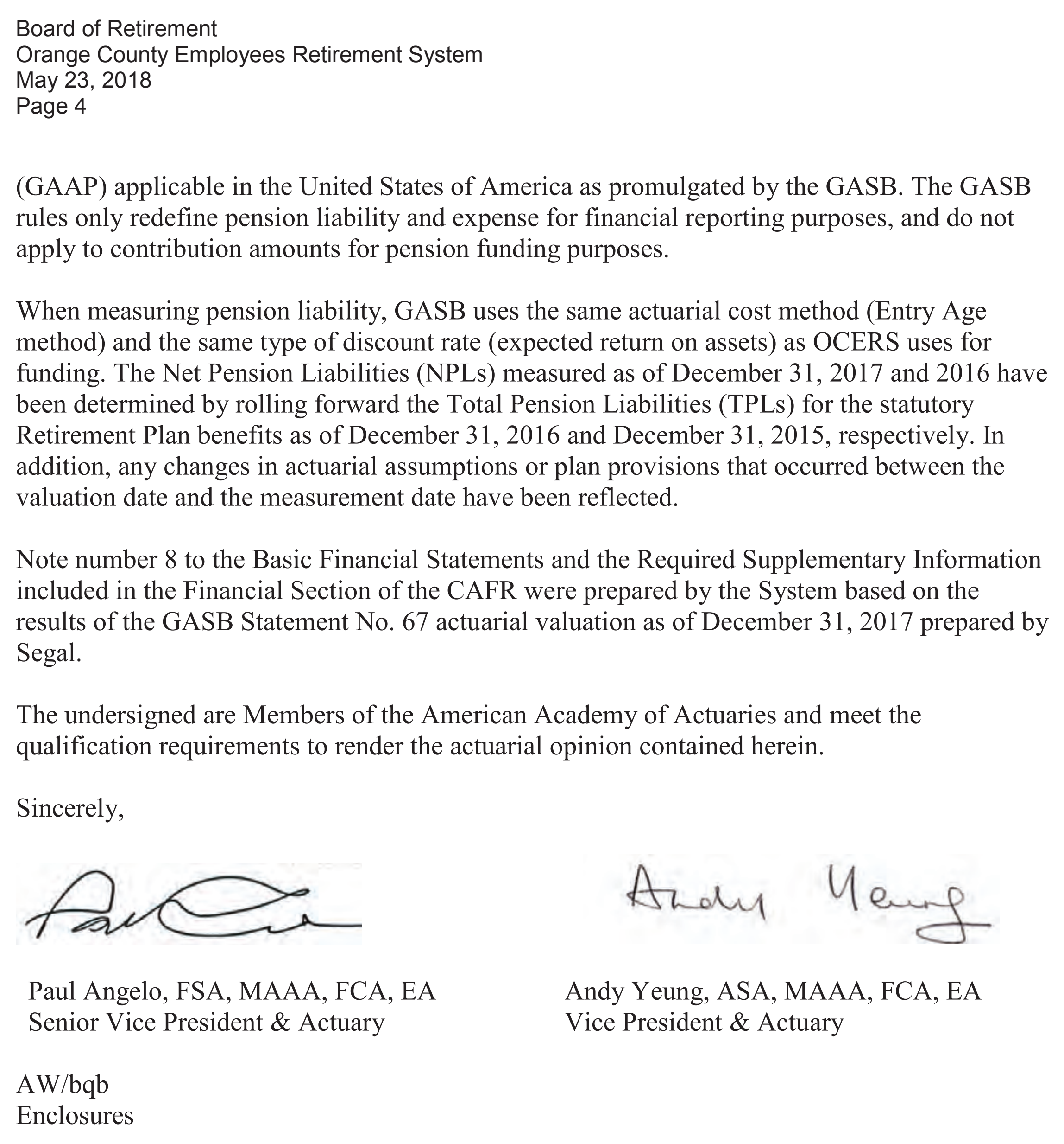
In the December 31, 2016 valuation, the ratio of the valuation value of assets to actuarial accrued liabilities increased from 71.7% to 73.1%. The aggregate employer rate (average of the County and all special districts rates combined) has changed from 36.97% of payroll to 36.56% of payroll. The 36.97% rate was calculated after adjusting for the additional UAAL contributions made by O.C. Sanitation District (OCSD) and Law Library during 2016 and the phase-in adjustment for Safety Rate Groups. The aggregate employee's rate has remained unchanged at 12.01% of payroll.

In the December 31, 2016 valuation, the actuarial value of assets excluded $445.6 million in unrecognized investment losses, which represented 3.5% of the market value of assets. If these deferred investment losses were recognized immediately in the actuarial value of assets, the funded percentage would decrease from 73.1% to 70.6% and the aggregate employer contribution rate, expressed as a percent of payroll would increase from 36.56% to about 38.6%.

To the best of our knowledge, the December 31, 2016 funding valuation report is complete and accurate and in our opinion presents the Plan's current funding information.

DECEMBER 31, 2017 GASB STATEMENT 67 ACTUARIAL VALUATION FOR FINANCIAL REPORTING PURPOSES

Segal prepared the December 31, 2017 GASB Statement 67 actuarial valuation for financial reporting purposes. The valuation was performed in order to comply with GASB Statement 67 and we certify that the assumptions and methods used for financial reporting purposes meet the parameters set by ASOPs and our understanding of generally accepted accounting principles



(GAAP) applicable in the United States of America as promulgated by the GASB. The GASB rules only redefine pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes.

When measuring pension liability, GASB uses the same actuarial cost method (Entry Age method) and the same type of discount rate (expected return on assets) as OCERS uses for funding. The Net Pension Liabilities (NPLs) measured as of December 31, 2017 and 2016 have been determined by rolling forward the Total Pension Liabilities (TPLs) for the statutory Retirement Plan benefits as of December 31, 2016 and December 31, 2015, respectively. In addition, any changes in actuarial assumptions or plan provisions that occurred between the valuation date and the measurement date have been reflected.

Note number 8 to the Basic Financial Statements and the Required Supplementary Information included in the Financial Section of the CAFR were prepared by the System based on the results of the GASB Statement No. 67 actuarial valuation as of December 31, 2017 prepared by Segal.

The undersigned are Members of the American Academy of Actuaries and meet the qualification requirements to render the actuarial opinion contained herein.

Sincerely,

Andy Yeung

Paul Angelo, FSA, MAAA, FCA, EA
Senior Vice President & Actuary

Andy Yeung, ASA, MAAA, FCA, EA
Vice President & Actuary

AW/bqb
Enclosures

Schedule of Funding Progress

(Dollars in Thousands)

Valuation Date	Actuarial Accrued Liability	Valuation Value of Assets	Unfunded Actuarial Accrued Liability	Ratio of Assets to Actuarial Accrued Liability	Projected Covered Payroll	Ratio of Unfunded Actuarial Accrued Liability to Projected Covered Payroll
12/31/07	$ 9,838,686(1)	$ 7,288,900	$ 2,549,786(1)	74.08%(1)	$ 1,457,159	174.98%(1)
12/31/08	10,860,715	7,748,380	3,112,335	71.34%	1,569,764	198.27%
12/31/09	11,858,578	8,154,687	3,703,891	68.77%	1,618,491	228.85%
12/31/10	12,425,873	8,672,592	3,753,281	69.79%	1,579,239	237.66%
12/31/11	13,522,978	9,064,355	4,458,623	67.03%	1,619,474	275.31%
12/31/12	15,144,888	9,469,208	5,675,680	62.52%	1,609,600	352.55%
12/31/13	15,785,042	10,417,125	5,367,917	65.99%	1,604,496	334.55%
12/31/14	16,413,124	11,449,911	4,963,213	69.76%	1,648,160	301.14%
12/31/15	17,050,357	12,228,009	4,822,348	71.72%	1,633,112	295.29%
12/31/16	17,933,461	13,102,978	4,830,483	73.06%	1,759,831	274.49%

[1] Revised due to the Board's action to continue the retirement rates for General plans with improved benefit formulas until further analysis could be conducted as part of the December 31, 2008 valuation.

Notes:

- The 12/31/16 valuation included the following change:

  O.C. Law Library was separated from O.C. Sanitation District in Rate Group #3 and put into their own Rate Group (Rate Group #12) after the last valuation as of December 31, 2015.

- The 12/31/15 valuation included the following benefit change:

  City of San Juan Capistrano adopted an optional 1.62% of final average salary at age 65 for members hired on or after July 1, 2016.

  Effective January 1, 2015, new OCTA members will be placed in CalPEPRA Plan U (2.50% of final average salary at age 67).

- The 12/31/14 valuation included the following changes:

  Assumption Changes:
  Changes in inflation, mortality, disability, termination, retirement, salary scale, and additional cashout assumptions in the December 31, 2013 triennial experience study decreased the UAAL by $122 million.

  Method Change:
  The cashout assumptions are now used in developing basic member contribution rates for employees in the legacy plans (impact is only on Normal Cost).

- The 12/31/13 valuation included the following method change:

  The outstanding balance of the December 31, 2012 UAAL was combined and re-amortized over a 20-year period.

- The 12/31/12 valuation included the following changes:

  Assumption Changes:
  Changes in investment return, inflation, and across the board salary increase assumptions in the December 31, 2012 review of economic assumptions report increased the UAAL by $935 million.

  Benefit Changes:
  Members with membership date on or after January 1, 2013 will be placed in CalPEPRA tiers (1.62% of final average salary at age 65, 2.50% of final average salary at age 67 and 2.70% of final average salary at age 57).

Schedule of Funding Progress

(continued)

- The 12/31/11 valuation included the following changes:

  Assumption Changes:
  Changes in mortality, disability, termination, retirement, salary scale, and additional cashout assumptions in the December 31, 2010 triennial experience study increased the UAAL by $364 million.

  Benefit Changes:
  City of San Juan Capistrano adopted a 2.0% of final average salary at age 57 for members hired on or after July 1, 2012.

  Certain employees previously employed at the City of Santa Ana became employees of OCFA General and OCFA Safety eligible for benefits under 2.0% of final average salary at age 55 and 3.0% of final average salary at age 50, respectively.

- The 12/31/10 valuation included the following benefit changes:

  LAFCO adopted an optional 1.62% of final average salary at age 65 for members hired on or after July 1, 2010.

  County Managers unit adopted an optional 1.62% of final average salary at age 65 for members hired on or after August 17, 2010.

  Sanitation District adopted a 1.64% of final average salary at age 57 for members within Supervisors and Professional unit hired on or after October 1, 2010.

  OCFA adopted a 3.00% of final average salary at age 55 for Safety members within the Executive Management unit hired on or after July 1, 2011 and for all Safety members hired on or after July 1, 2012.

  OCFA adopted a 2.00% of final average salary at age 55 for General members hired on or after July 1, 2011.

- The 12/31/09 valuation included the following benefit changes:

  General County OCEA and Superior Court adopted an optional 1.62% of final average salary at age 65 for members hired on or after May 7, 2010.

  Law Enforcement adopted a 3.0% of final average salary at age 55 for members hired on or after April 9, 2010.

- The 12/31/08 valuation included the following assumption changes:

  Changes in service retirement rates for General members with improved benefit formulas increased the UAAL by $116 million.

- The 12/31/07 valuation included the following changes:

  Assumption Changes:
  Changes in mortality, disability, termination, retirement, salary scale, and annual payoff assumptions in the December 31, 2007 triennial experience study increased the UAAL by $237 million.

  Benefit Changes:
  There is a new Rate Group #11, for Cemetery District, that adopted a 2% of final average salary at age 55 for future service only effective December 7, 2007. Vector Control District terminated its participation at OCERS as of January 4, 2007.

Schedule of Funding Progress

(continued)

- The assets exclude amounts in the County Investment Account and prepaid employer contributions. Each year since December 31, 2016 the assets also exclude amounts in the O.C. Sanitation District UAAL Deferred Account.

	Amount Excluded from Assets		
Valuation Date	County Investment Account	Prepaid Employer Contributions	O.C. Sanitation District UAAL Deferred Account
12/31/07	$ 174,348,000	$ 108,301,000	$ 0
12/31/08	126,683,000	24,345,000	0
12/31/09	108,324,000	20,027,000	0
12/31/10	108,531,000	29,545,000	0
12/31/11	97,767,000	162,873,000	0
12/31/12	103,261,000	177,632,000	0
12/31/13	109,254,000	172,348,000	0
12/31/14	109,103,000	207,829,000	0
12/31/15	108,789,000	227,166,000	0
12/31/16	117,723,000	222,524,000	34,067,000

- For informational purposes only, we have also developed the funded ratio determined using the historical market value of assets after adjustment for amounts in the County Investment Account, prepaid employer contributions, amounts in the O.C. Sanitation District UAAL Deferred Account, unclaimed member reserve and Medicare Medical Insurance Reserve.

Valuation Date	Funded Ratio based on Net Market Value of Assets
12/31/07	78.43%
12/31/08	57.51%
12/31/09	62.94%
12/31/10	67.25%
12/31/11	62.60%
12/31/12	63.17%
12/31/13	67.65%
12/31/14	69.63%
12/31/15	67.73%
12/31/16	70.58%

History of Employer Contribution Rates

Employer Contribution Rate (% of pay)

Valuation Date	General (Non-OCTA, Non-OCSD)	General (1.62% @ 65, Non-OCTA)	General (2.7% @ 55)	General (2.0% @ 57)	General (OCTA)	General (2.5% @ 55)
12/31/07	NC 8.92%	N/A	NC 11.24%	N/A	NC 11.26%	NC 10.54%
	UAAL 5.25		UAAL 10.59		UAAL 3.76	UAAL 11.41
	Total 14.17%		Total 21.83%		Total 15.02%	Total 21.95%
12/31/08	NC 8.99%	N/A	NC 11.79%	N/A	NC 11.32%	NC 11.19%
	UAAL 7.06		UAAL 13.00		UAAL 5.94	UAAL 13.01
	Total 16.05%		Total 24.79%		Total 17.26%	Total 24.20%
12/31/09(1)	NC 8.69%	NC 3.69%	NC 11.61%	N/A	NC 11.11%	NC 10.93%
	UAAL 10.43	UAAL 15.50	UAAL 15.50		UAAL 9.28	UAAL 14.75
	Total 19.12%	Total 19.19%	Total 27.11%		Total 20.39%	Total 25.68%
12/31/10(2)	NC 8.59%	NC 5.10%	NC 11.55%	N/A	NC 10.96%	NC 10.92%
	UAAL 8.26	UAAL 16.84	UAAL 16.84		UAAL 10.00	UAAL 16.55
	Total 16.85%	Total 21.94%	Total 28.39%		Total 20.96%	Total 27.47%
12/31/11	NC 8.55%	NC 4.91%	NC 12.03%	NC 10.99%	NC 10.57%	NC 11.29%
	UAAL 10.39	UAAL 20.98	UAAL 20.98	UAAL 20.98	UAAL 13.08	UAAL 20.66
	Total 18.94%	Total 25.89%	Total 33.01%	Total 31.97%	Total 23.65%	Total 31.95%
12/31/12	NC 9.68%	NC 5.56%	NC 13.69%	NC 12.10%	NC 11.83%	NC 12.88%
	UAAL 12.91	UAAL 25.85	UAAL 25.85	UAAL 25.85	UAAL 16.48	UAAL 25.60
	Total 22.59%	Total 31.41%	Total 39.54%	Total 37.95%	Total 28.31%	Total 38.48%
With 2-Year Phase-In	21.04%	29.84%	37.45%	35.96%	26.62%	36.57%
12/31/13(3)	NC 9.82%	NC 5.61%	NC 13.66%	NC 12.46%	NC 11.81%	NC 12.89%
	UAAL 11.34	UAAL 23.72	UAAL 23.72	UAAL 23.72	UAAL 15.22	UAAL(4) 21.87
	Total 21.16%	Total 29.33%	Total 37.38%	Total 36.18%	Total 27.03%	Total 34.76%
12/31/14	NC 9.67%	NC 5.49%	NC 13.22%	NC 10.54%	NC 10.78%	NC 12.40%
	UAAL(6) 8.62	UAAL 21.72	UAAL 21.72	UAAL 21.72	UAAL 14.40	UAAL(7) 6.26
	Total 18.29%	Total 27.21%	Total 34.94%	Total 32.26%	Total 25.18%	Total 18.66%
With 3-Year Phase-In	N/A	N/A	N/A	N/A	N/A	N/A
12/31/15	NC 9.58%	NC 5.46%	NC 13.19%	NC 11.40%	NC 10.70%	NC 12.33%
	UAAL(8) 9.22	UAAL 22.45	UAAL 22.45	UAAL 22.45	UAAL 15.52	UAAL(9) 1.42
	Total 18.80%	Total 27.91%	Total 35.64%	Total 33.85%	Total 26.22%	Total 13.75%
With 3-Year Phase-In	N/A	N/A	N/A	N/A	N/A	N/A
12/31/16	NC 9.51%	NC 5.53%	NC 13.19%	NC 10.35%	NC 10.76%	NC 12.28%
	UAAL(10) 7.25	UAAL 21.72	UAAL(11) 21.72	UAAL 21.72	UAAL 14.76	UAAL 0.00
	Total 16.76%	Total 27.25%	Total 34.91%	Total 32.07%	Total 25.52%	Total 12.28%

History of Employer Contribution Rates

(continued)

Employer Contribution Rate (% of pay)

Valuation Date	General (1.64% @ 57, OCSD)	General (2.0% @ 55, TCA)	General (2.0% @ 55, Cemetery, future service)	General (2.7% @ 55, OCFA)	General (2.0% @ 55, OCFA)	General (2.5% @ 55, Law Library)
12/31/07	N/A	NC 12.60% UAAL 6.13 Total 18.73%	NC 10.79% UAAL 4.36 Total 15.15%	NC 11.48% UAAL 11.53 Total 23.01%	N/A	NC 10.54% UAAL 11.41 Total 21.95%
12/31/08	N/A	NC 13.02% UAAL 5.72 Total 18.74%	NC 10.85% UAAL 7.05 Total 17.90%	NC 12.03% UAAL 12.59 Total 24.62%	N/A	NC 11.19% UAAL 13.01 Total 24.20%
12/31/09[1]	NC 10.14% UAAL 14.75 Total 24.89%	NC 12.59% UAAL 7.05 Total 19.64%	NC 11.24% UAAL 6.92 Total 18.16%	NC 11.98% UAAL 14.55 Total 26.53%	NC 11.11% UAAL 14.55 Total 25.66%	NC 10.93% UAAL 14.75 Total 25.68%
12/31/10[2]	NC 10.14% UAAL 16.55 Total 26.69%	NC 12.56% UAAL 8.41 Total 20.97%	NC 10.90% UAAL 6.86 Total 17.76%	NC 11.85% UAAL 16.14 Total 27.99%	NC 11.11% UAAL 16.14 Total 27.25%	NC 10.92% UAAL 16.55 Total 27.47%
12/31/11	NC 10.11% UAAL 20.66 Total 30.77%	NC 13.11% UAAL 9.11 Total 22.22%	NC 10.80% UAAL 8.23 Total 19.03%	NC 12.18% UAAL 20.43 Total 32.61%	NC 14.35% UAAL 20.43 Total 34.78%	NC 11.29% UAAL 20.66 Total 31.95%
12/31/12	NC 11.02% UAAL 25.60 Total 36.62%	NC 14.20% UAAL 12.97 Total 27.17%	NC 12.34% UAAL 12.28 Total 24.62%	NC 13.92% UAAL 24.76 Total 38.68%	NC 14.01% UAAL 24.76 Total 38.77%	NC 12.88% UAAL 25.60 Total 38.48%
With 2-Year Phase-In	34.87%	25.71%	22.99%	36.70%	36.99%	36.57%
12/31/13[3]	NC 10.53% UAAL[4] 21.87 Total 32.40%	NC 14.13% UAAL 12.28 Total 26.41%	NC 12.33% UAAL[5] 9.87 Total 22.20%	NC 14.06% UAAL 23.34 Total 37.40%	NC 14.15% UAAL 23.34 Total 37.49%	NC 12.89% UAAL 21.87 Total 34.76%
12/31/14	NC 10.30% UAAL [7] 6.26 Total 16.56%	NC 13.59% UAAL 12.78 Total 26.37%	NC 11.79% UAAL 0.00 Total 11.79%	NC 13.53% UAAL 20.28 Total 33.81%	NC 12.47% UAAL 20.28 Total 32.75%	NC 12.40% UAAL 20.21 Total 32.61%
With 3-Year Phase-In	N/A	N/A	N/A	N/A	N/A	N/A
12/31/15	NC 10.30% UAAL [9] 1.42 Total 11.72%	NC 13.44% UAAL 13.79 Total 27.23%	NC 11.33% UAAL 0.00 Total 11.33%	NC 13.44% UAAL 20.53 Total 33.97%	NC 12.72% UAAL 20.53 Total 33.25%	NC 12.33% UAAL[12] 22.08 Total 34.41%
With 3-Year Phase-In	N/A	N/A	N/A	N/A	N/A	N/A
12/31/16	NC 10.21% UAAL 0.00 Total 10.21%	NC 13.30% UAAL 11.46 Total 24.76%	NC 11.09% UAAL 0.00 Total 11.09%	NC 13.61% UAAL 18.35 Total 31.96%	NC 12.64% UAAL 18.35 Total 30.99%	NC 13.32% UAAL[13] 9.69 Total 23.01%

History of Employer Contribution Rates

(continued)

Employer Contribution Rate (% of pay)

Valuation Date	Safety Law Enforcement (3% @ 50)	Safety Law Enforcement (3% @ 55)	Safety Fire Authority (3% @ 50)	Safety Fire Authority (3% @ 55)	Safety Probation
12/31/07	NC 21.27%	N/A	NC 21.02%	N/A	NC 20.49%
	UAAL 18.25		UAAL 17.22		UAAL 10.90
	Total 39.52%		Total 38.24%		Total 31.39%
12/31/08	NC 21.39%	N/A	NC 21.16%	N/A	NC 20.15%
	UAAL 21.95		UAAL 21.94		UAAL 12.03
	Total 43.34%		Total 43.10%		Total 32.18%
12/31/09[1]	NC 21.13%	NC 20.38%	NC 21.31%	NC 18.30%	NC 20.17%
	UAAL 25.26	UAAL 25.26	UAAL 27.22	UAAL 27.22	UAAL 13.90
	Total 46.39%	Total 45.64%	Total 48.53%	Total 45.52%	Total 34.07%
12/31/10[2]	NC 21.05%	NC 20.38%	NC 21.54%	NC 18.30%	NC 20.07%
	UAAL 26.40	UAAL 26.40	UAAL 23.92	UAAL 23.92	UAAL 16.22
	Total 47.45%	Total 46.78%	Total 45.46%	Total 42.22%	Total 36.29%
12/31/11	NC 21.48%	NC 21.47%	NC 23.49%	NC 18.58%	NC 19.31%
	UAAL 29.38	UAAL 29.38	UAAL 19.66	UAAL 19.66	UAAL 17.26
	Total 50.86%	Total 50.85%	Total 43.15%	Total 38.24%	Total 36.57%
12/31/12	NC 24.24%	NC 24.20%	NC 26.16%	NC 21.12%	NC 21.26%
	UAAL 36.71	UAAL 36.71	UAAL 26.84	UAAL 26.84	UAAL 21.91
	Total 60.95%	Total 60.91%	Total 53.00%	Total 47.96%	Total 43.17%
With 2-Year Phase-In	57.27%	57.37%	49.83%	44.85%	40.52%
12/31/13[3]	NC 24.23%	NC 22.58%	NC 25.86%	NC 21.70%	NC 21.00%
	UAAL 32.47	UAAL 32.47	UAAL 24.14	UAAL 24.14	UAAL 19.72
	Total 56.70%	Total 55.05%	Total 50.00%	Total 45.84%	Total 40.72%
12/31/14	NC 25.79%	NC 23.55%	NC 27.05%	NC 22.38%	NC 22.17%
	UAAL 37.46	UAAL 37.46	UAAL 24.42	UAAL 24.42	UAAL 25.01
	Total 63.25%	Total 61.01%	Total 51.47%	Total 46.80%	Total 47.18%
With 3-Year Phase-In	58.92%	56.88%	48.60%	43.93%	42.84%
12/31/15	NC 25.56%	NC 23.24%	NC 26.87%	NC 22.10%	NC 21.92%
	UAAL 39.16	UAAL 39.16	UAAL 23.81	UAAL 23.81	UAAL 25.32
	Total 64.72%	Total 62.40%	Total 50.68%	Total 45.91%	Total 47.24%
With 3-Year Phase-In	62.55%	60.34%	49.24%	44.47%	45.07%
12/31/16	NC 25.63%	NC 23.00%	NC 26.84%	NC 21.86%	NC 21.87%
	UAAL 38.19	UAAL 38.19	UAAL 22.27	UAAL 22.27	UAAL 26.06
	Total 63.82%	Total 61.19%	Total 49.11%	Total 44.13%	Total 47.93%

History of Employer Contribution Rates

(continued)

Employer Contribution Rate (% of pay)

Valuation Date	CalPEPRA Rate Group #1 2.5% @ 67	CalPEPRA Rate Group #2 1.62% @ 65 (Plan T)	CalPEPRA Rate Group #2 2.5% @ 67	CalPEPRA Rate Group #2 1.62% @ 67 (Plan W)	CalPEPRA Rate Group #3 2.5% @ 67	CalPEPRA Rate Group #5 2.5% @ 67
12/31/10	NC 7.24% UAAL 8.26 Total 15.50%	NC 5.78% UAAL 16.84 Total 22.62%	NC 7.64% UAAL 16.84 Total 24.48%	N/A	NC 8.34% UAAL 16.55 Total 24.89%	N/A
12/31/11	NC 8.06% UAAL 10.39 Total 18.45%	NC 6.20% UAAL 20.98 Total 27.18%	NC 8.26% UAAL 20.98 Total 29.24%	N/A	NC 8.70% UAAL 20.66 Total 29.36%	N/A
12/31/12	NC 8.68% UAAL 12.91 Total 21.59%	NC 6.78% UAAL 25.85 Total 32.63%	NC 7.44% UAAL 25.85 Total 33.29%	N/A	NC 9.38% UAAL 25.60 Total 34.98%	N/A
With 2-Year Phase-In	20.33%	31.10%	32.05%		33.52%	
12/31/13(3)	NC 9.39% UAAL 11.34 Total 20.73%	NC 6.70% UAAL 23.72 Total 30.42%	NC 8.56% UAAL 23.72 Total 32.28%	N/A	NC 9.66% UAAL(4) 21.87 Total 31.53%	N/A
12/31/14	NC 8.87% UAAL(6) 8.62 Total 17.49%	NC 6.61% UAAL 21.72 Total 28.33%	NC 8.33% UAAL 21.72 Total 30.05%	N/A	NC 9.00% UAAL(7) 6.26 Total 15.26%	NC 10.04% UAAL 14.40 Total 24.44%
With 3-Year Phase-In	N/A	N/A	N/A		N/A	N/A
12/31/15	NC 8.92% UAAL(8) 9.22 Total 18.14%	NC 6.56% UAAL 22.45 Total 29.01%	NC 8.35% UAAL 22.45 Total 30.80%	NC 6.68% UAAL 22.45 Total 29.13%	NC 9.25% UAAL(9) 1.42 Total 10.67%	NC 10.12% UAAL 15.52 Total 25.64%
With 3-Year Phase-In	N/A	N/A	N/A	N/A	N/A	N/A
12/31/16	NC 8.63% UAAL(10) 7.25 Total 15.88%	NC 6.58% UAAL 21.72 Total 28.30%	NC 8.28% UAAL 21.72 Total 30.00%	NC 6.68% UAAL 21.72 Total 28.40%	NC 9.27% UAAL 0.00 Total 9.27%	NC 10.25% UAAL 14.76 Total 25.01%

History of Employer Contribution Rates

(continued)

Employer Contribution Rate (% of pay)

Valuation Date	CalPEPRA Rate Group #9 2.5% @ 67	CalPEPRA Rate Group #10 2.5% @ 67	CalPEPRA Rate Group #11 2.5% @ 67	CalPEPRA Rate Group #12 2.5% @ 67	CalPEPRA Rate Group #6 2.7% @ 57	CalPEPRA Rate Group #7 2.7% @ 57	CalPEPRA Rate Group #8 2.7% @ 57
12/31/10	NC 9.78%	NC 7.36%	NC 7.31%	NC 8.34%	NC 11.37%	NC 15.03%	NC 14.53%
	UAAL 8.41	UAAL 16.14	UAAL 6.86	UAAL 16.55	UAAL 16.22	UAAL 26.40	UAAL 23.92
	Total 18.19%	Total 23.50%	Total 14.17%	Total 24.89%	Total 27.59%	Total 41.43%	Total 38.45%
12/31/11	NC 10.36%	NC 7.84%	NC 7.95%	NC 8.70%	NC 12.23%	NC 15.55%	NC 15.23%
	UAAL 9.11	UAAL 20.43	UAAL 8.23	UAAL 20.66	UAAL 17.26	UAAL 29.38	UAAL 19.66
	Total 19.47%	Total 28.27%	Total 16.18%	Total 29.36%	Total 29.49%	Total 44.93%	Total 34.89%
12/31/12	NC 10.97%	NC 8.50%	NC 8.66%	NC 9.38%	NC 13.91%	NC 17.05%	NC 16.41%
	UAAL 12.97	UAAL 24.76	UAAL 12.28	UAAL 25.60	UAAL 21.91	UAAL 36.71	UAAL 26.84
	Total 23.94%	Total 33.26%	Total 20.94%	Total 34.98%	Total 35.82%	Total 53.76%	Total 43.25%
With 2-Year Phase-In	22.87%	31.81%	19.63%	33.52%	33.40%	50.61%	40.96%
12/31/13[3]	NC 11.40%	NC 9.71%	NC 8.66%	NC 9.66%	NC 13.95%	NC 19.17%	NC 16.85%
	UAAL 12.28	UAAL 23.34	UAAL[5] 9.87	UAAL 21.87	UAAL 19.72	UAAL 32.47	UAAL 24.14
	Total 23.68%	Total 33.05%	Total 18.53%	Total 31.53%	Total 33.67%	Total 51.64%	Total 40.99%
12/31/14	NC 9.85%	NC 9.63%	NC 11.81%	NC 9.00%	NC 15.25%	NC 20.10%	NC 15.71%
	UAAL 12.78	UAAL 20.28	UAAL 0.00	UAAL 20.21	UAAL 25.01	UAAL 37.46	UAAL 24.42
	Total 22.63%	Total 29.91%	Total 11.81%	Total 29.21%	Total 40.26%	Total 57.56%	Total 40.13%
With 3-Year Phase-In	N/A	N/A	N/A	N/A	36.02%	54.01%	38.08%
12/31/15	NC 10.57%	NC 8.81%	NC 12.23%	NC 9.25%	NC 15.00%	NC 20.04%	NC 15.30%
	UAAL 13.79	UAAL 20.53	UAAL 0.00	UAAL[12] 22.08	UAAL 25.32	UAAL 39.16	UAAL 23.81
	Total 24.36%	Total 29.34%	Total 12.23%	Total 31.33%	Total 40.32%	Total 59.20%	Total 39.11%
With 3-Year Phase-In	N/A	N/A	N/A	N/A	38.20%	57.42%	38.09%
12/31/16	NC 10.40%	NC 8.99%	NC 9.98%	NC 7.59%	NC 15.24%	NC 19.39%	NC 14.84%
	UAAL 11.46	UAAL 18.35	UAAL 0.00	UAAL[13] 9.69	UAAL 26.06	UAAL 38.19	UAAL 22.27
	Total 21.86%	Total 27.34%	Total 9.98%	Total 17.28%	Total 41.30%	Total 57.58%	Total 37.11%

(1) The UAAL established as a result of including additional premium pay items is amortized over a 25-year period.

(2) The UAAL established as a result of reallocating contributions and benefit payments among Rate Groups is amortized over a 24-year period.

(3) The outstanding balance of the December 31, 2012 UAAL has been combined and re-amortized over a period of 20 years.

(4) This is the UAAL rate for O.C. Sanitation District for FY 15-16 before reflecting the additional UAAL contributions made during calendar year 2014.

(5) This is the UAAL rate for O.C. Cemetery District for FY 15-16 before reflecting the additional UAAL contributions made during calendar year 2014.

(6) The net UAAL contribution rates for County and O.C. IHSS Public Authority (i.e., excluding U.C.I and Department of Education) is 5.67% as of December 31, 2014.

(7) This is the UAAL rate for O.C. Sanitation District for FY 16-17 before reflecting the additional UAAL contributions made during calendar year 2015.

(8) The net UAAL contribution rates for County and O.C. IHSS Public Authority (i.e., excluding U.C.I and Department of Education) is 5.57% as of December 31, 2015.

(9) This is the UAAL rate for O.C. Sanitation District for FY 17-18 before reflecting the additional UAAL contributions made during calendar year 2016.

(10) The net UAAL contribution rates for County and O.C. IHSS Public Authority (i.e., excluding U.C.I and Department of Education) is 4.18% as of December 31, 2016.

(11) This is the UAAL rate for O.C. Children and Families Commission for FY 18-19 before reflecting the additional UAAL contributions made during calendar year 2017.

(12) This is the UAAL rate for Law Library for FY 17-18 before reflecting the additional UAAL contributions made during calendar year 2016.

(13) This is the UAAL rate for Law Library for FY 18-19 before reflecting the additional UAAL contributions made during calendar year 2017.

Summary of Active Membership

Valuation Date	Number	Annual Salary	Annual Average Salary	Increase in Average Salary (%)
12/31/07				
General	19,803	$ 1,156,684,000	$ 58,410	6.50
Safety	3,815	300,475,000	78,761	5.32
Total	**23,618**	**$ 1,457,159,000**	**$ 61,697**	**6.29**
12/31/08				
General	19,795	$ 1,238,077,000	$ 62,545	7.08
Safety	3,925	331,687,000	84,506	7.29
Total	**23,720**	**$ 1,569,764,000**	**$ 66,179**	**7.26**
12/31/09				
General	18,873	$ 1,258,558,000	$ 66,686	6.62
Safety	3,760	359,933,000	95,727	13.28
Total	**22,633**	**$ 1,618,491,000**	**$ 71,510**	**8.06**
12/31/10				
General	18,155	$ 1,232,657,000	$ 67,896	1.81
Safety	3,587	346,582,000	96,622	0.93
Total	**21,742**	**$ 1,579,239,000**	**$ 72,635**	**1.57**
12/31/11				
General	17,717	$ 1,249,064,000	$ 70,501	3.84
Safety	3,704	370,410,000	100,003	3.50
Total	**21,421**	**$ 1,619,474,000**	**$ 75,602**	**4.08**
12/31/12				
General	17,529	$ 1,238,958,000	$ 70,680	0.25
Safety	3,727	370,643,000	99,448	-0.55
Total	**21,256**	**$ 1,609,601,000**	**$ 75,725**	**0.16**
12/31/13				
General	17,547	$ 1,227,153,000	$ 69,935	-1.05
Safety	3,821	377,343,000	98,755	-0.70
Total	**21,368**	**$ 1,604,496,000**	**$ 75,089**	**-0.84**
12/31/14				
General	17,705	$ 1,267,582,000	$ 71,595	2.37
Safety	3,754	380,578,000	101,379	2.66
Total	**21,459**	**$ 1,648,160,000**	**$ 76,805**	**2.29**
12/31/15				
General	17,839	$ 1,254,521,000	$ 70,325	-1.77
Safety	3,686	378,590,000	102,710	1.31
Total	**21,525**	**$ 1,633,111,000**	**$ 75,870**	**-1.22**
12/31/16				
General	18,072	$ 1,353,363,000	$ 74,887	6.49
Safety	3,674	406,470,000	110,634	7.71
Total	**21,746**	$ 1,759,833,000	**$ 80,927**	**6.67**

Excludes Deferred and Pending members.

Summary of Retired Membership

		Added to Rolls		Removed from Rolls					
Plan Year Ending	At Beginning of Year	Number	Annual Allowance (in 000's)[1]	Number	Annual Allowance (in 000's)	At End of Year	Annual Allowance (in 000's)	% Increase in Annual Allowance	Average Monthly Allowance
2007	10,915	817	$ 41,552	(311)	$ (6,596)	11,421	$ 361,775	10.70	$ 2,640
2008	11,421	658	38,298	(301)	(6,426)	11,778	393,647	8.81	2,785
2009	11,778	744	32,435	(279)	(6,829)	12,243	419,253	6.50	2,854
2010	12,243	851	46,736	(332)	(8,334)	12,762	457,655	9.16	2,988
2011	12,762	888	45,913	(361)	(9,371)	13,289	494,197	7.98	3,099
2012	13,289	1,026	58,344	(368)	(9,036)	13,947	543,505	9.98	3,247
2013	13,947	911	52,319	(353)	(9,958)	14,505	585,866	7.79	3,366
2014	14,505	995	52,838	(331)	(9,812)	15,169	628,892	7.34	3,455
2015	15,169	1,053	58,679	(412)	(12,077)	15,810	675,494	7.41	3,560
2016	15,810	989	51,759	(430)	(12,895)	16,369	714,358	5.75	3,637

(1) Includes COLA granted during the plan year.

Note: Annual allowances exclude RMBR and STAR COLA.

Development of Actuarial and Valuation Value of Assets

As of December 31, 2016

Plan Year Ending	Total Actual Market Return (net)	Expected Market Return (net)	Investment Gain/ (Loss)	Deferred Factor	Deferred Return
2013	$ 1,031,118,000	$ 696,553,000	$ 334,565,000	0.2	$ 66,913,000
2014	487,104,000	780,627,000	(293,523,000)	0.4	(117,409,000)
2015	(51,601,000)	833,757,000	(885,358,000)	0.6	(531,215,000)
2016	1,010,548,000	840,469,000	170,079,000	0.8	136,063,000

(1)	Total Deferred Return	$ (445,648,000)
(2)	Net Market Value of Assets (Excludes $117,723,000 in County Investment Account, $222,524,000 in Prepaid Employer Contributions and $34,067,000 in O.C. Sanitation District UAAL Deferred Account)	$ 12,657,418,000⁽¹⁾
(3)	Actuarial Value of Assets (2) – (1)	$ 13,103,066,000⁽²⁾
(4)	Non-valuation Reserves	
	(a) Unclaimed member deposit	$ -
	(b) Medicare medical insurance reserve	88,000
	(c) Subtotal	$ 88,000
(5)	Valuation Value of Assets (3) – (4)(c)	$ 13,102,978,000
(6)	Deferred Return Recognizd in Each of the Next 4 Years	
	(a) Amount recognized on 12/31/2017	$ (134,848,000)
	(b) Amount recognized on 12/31/2018	(201,760,000)
	(c) Amount recognized on 12/31/2019	(143,056,000)
	(d) Amount recognized on 12/31/2020	34,016,000
	(e) Subtotal (may not total exactly due to rounding)	$ (445,648,000)

(1) Based on the preliminary unaudited financial statement provided by OCERS for the December 31, 2016 valuation.

(2) Ratio of Actuarial Value of Assets to Net Market Value of Assets is 103.5% ((3) / (2)).

Short-Term Solvency Test

(Dollars in Thousands)

Valuation Date	(1) Active Member Contributions	(2) Liability for Inactive Participants	(3) Liability for Active Members (Employer Financed Portion)	Valuation Value of Assets	Portion of Accrued Liability Covered by Valuation Assets (%)		
					(1)	(2)	(3)
12/31/07	$ 1,215,825	$ 4,803,585	$ 3,819,276(1)	$ 7,288,900	100	100	33.24(1)
12/31/08	1,376,514	5,211,893	4,272,308	7,748,380	100	100	27.15
12/31/09	1,536,849	5,680,031	4,641,698	8,154,687	100	100	20.20
12/31/10	1,680,401	6,107,350	4,638,122	8,672,592	100	100	19.08
12/31/11	1,829,406	6,881,152	4,812,420	9,064,355	100	100	7.35
12/31/12	1,967,117	7,919,478	5,258,293	9,469,208	100	94.73	0.00
12/31/13	2,126,182	8,502,269	5,156,591	10,417,125	100	97.51	0.00
12/31/14	2,298,744	9,017,874	5,096,506	11,449,911	100	100	2.62
12/31/15	2,488,757	9,696,776	4,864,824	12,228,009	100	100	0.87
12/31/16	2,654,599	10,109,528	5,169,334	13,102,978	100	100	6.56

(1) Revised due to the Board's action to continue the retirement rates for General plans with improved benefit formulas until further analysis could be conducted as part of the December 31, 2008 valuation.

Actuarial Methods and Assumptions

Section 1 - Post – Retirement Mortality Rates:

Healthy:	For General Members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020. For Safety Members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020 with ages set back two years.
Disabled:	For General Members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020 with ages set forward six years for males and set forward three years for females. For Safety Members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020. The mortality tables shown above were determined to contain about a 10% margin to reflect future mortality improvement, based on a review of the mortality experience as of the measurement date.
Beneficiaries:	Beneficiaries are assumed to have the same mortality as a General Member of the opposite sex who is receiving a service (non-disability) retirement.
Employee Contribution Rates:	For General Members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020 weighted 40% male and 60% female. For Safety Members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020 with ages set back two years weighted 80% male and 20% female.

Section 2 - Termination Rates Before Retirement:

	Rate (%)			
	General		Safety	
Age	Male	Female	Male	Female
25	0.04	0.02	0.04	0.02
30	0.04	0.02	0.04	0.02
35	0.07	0.04	0.06	0.04
40	0.10	0.07	0.09	0.06
45	0.14	0.11	0.12	0.09
50	0.20	0.16	0.18	0.14
55	0.34	0.25	0.27	0.21
60	0.59	0.41	0.48	0.33
65	1.00	0.76	0.82	0.60

All General pre-retirement deaths are assumed to be non-service connected. For Safety, 90% of pre-retirement deaths are assumed to be non-service connected. The other 10% are assumed to be service connected.

Actuarial Methods and Assumptions

(continued)

Section 2 - Termination Rates Before Retirement (Continued):

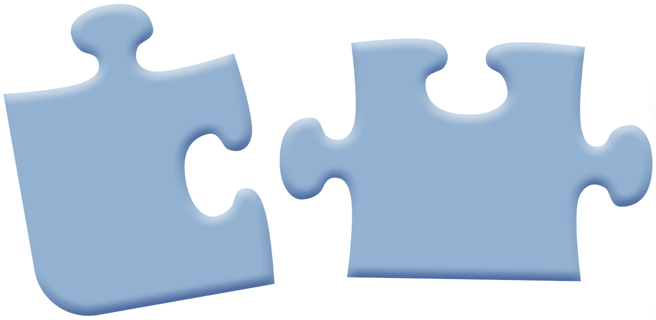
Disability Incidence Rates

	Rate (%)			
	General		Safety	
Age	All Other[1]	OCTA[2]	Law & Fire[3]	Probation[3]
20	0.00	0.00	0.00	0.00
25	0.00	0.00	0.01	0.03
30	0.01	0.03	0.04	0.08
35	0.03	0.20	0.14	0.10
40	0.08	0.36	0.26	0.10
45	0.11	0.43	0.42	0.16
50	0.14	0.48	0.92	0.20
55	0.18	0.74	1.98	0.23
60	0.29	1.41	5.20	0.10

(1) 55% of General All Other disabilities are assumed to be service connected disabilities. The other 45% are assumed to be non-service connected.

(2) 65% of General - OCTA disabilities are assumed to be service connected disabilities. The other 35% are assumed to be non-service connected.

(3) 100% of Safety – Law Enforcement, Fire and Probation disabilities are assumed to be service connected disabilities.



Section 2 - Termination Rates Before Retirement (Continued):

Termination Rates

	Rate (%)			
	General		Safety	
Years of Service	All Other[1]	OCTA[2]	Law & Fire[3]	Probation[4]
0	11.00	17.50	4.00	16.00
1	8.00	13.50	3.00	13.00
2	7.00	10.50	2.00	10.00
3	5.00	10.00	1.00	6.00
4	4.00	9.00	1.00	4.00
5	3.75	7.00	1.00	3.50
6	3.50	5.00	0.95	3.00
7	3.00	5.00	0.90	2.50
8	2.75	4.00	0.85	2.25
9	2.50	3.50	0.80	2.00
10	2.25	3.50	0.75	1.75
11	2.00	3.50	0.65	1.75
12	2.00	3.00	0.60	1.50
13	1.75	3.00	0.50	1.25
14	1.75	3.00	0.50	1.00
15	1.75	3.00	0.50	1.00
16	1.50	3.00	0.50	1.00
17	1.50	2.75	0.50	0.50
18	1.50	2.75	0.50	0.50
19	1.50	2.75	0.50	0.50
20+	1.25	1.75	0.25	0.50

(1) 40% of all terminated members with less than 5 years of service and 25% of all terminated members with 5 or more years of service will choose a refund of contributions.

(2) 45% of all terminated members with less than 5 years of service and 35% of all terminated members with 5 or more years of service will choose a refund of contributions.

(3) 20% of all terminated members with less than 5 years of service and 20% of all terminated members with 5 or more years of service will choose a refund of contributions.

(4) 40% of all terminated members with less than 5 years of service and 30% of all terminated members with 5 or more years of service will choose a refund of contributions.

Actuarial Methods and Assumptions

(continued)

Retirement Rates

	Rate (%)							
	General			Safety				
Age	Enhanced	Non-Enhanced(1)	SJC	Law (3% @ 50)(2)	Law (3% @ 55)(2)	Fire (3% @ 50)(2)	Fire (3% @ 55)(2)	Probation(2)
49	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0
50	2.5	2.5	3.0	16.0	11.5	6.0	8.0	3.0
51	2.0	2.5	3.0	16.0	12.0	8.0	10.0	3.0
52	2.0	2.5	3.0	16.0	12.7	9.0	11.0	4.0
53	2.0	2.5	3.0	16.0	17.9	10.0	12.0	4.0
54	5.0	2.5	3.0	22.0	18.8	16.0	14.0	6.0
55	15.0	3.0	4.0	22.0	30.7	19.0	24.0	11.0
56	10.0	3.5	5.0	20.0	20.0	20.0	23.0	11.0
57	10.0	5.0	6.0	20.0	20.0	23.0	27.0	17.0
58	10.0	5.0	7.0	20.0	25.0	30.0	27.0	20.0
59	11.0	7.0	9.0	26.0	30.0	30.0	36.0	20.0
60	12.0	9.0	11.0	45.0	100.0	45.0	100.0	20.0
61	12.0	10.0	13.0	45.0	100.0	45.0	100.0	20.0
62	15.0	16.0	15.0	45.0	100.0	45.0	100.0	25.0
63	16.0	16.0	15.0	45.0	100.0	45.0	100.0	50.0
64	16.0	18.0	20.0	45.0	100.0	45.0	100.0	50.0
65	21.0	21.0	20.0	100.0	100.0	100.0	100.0	100.0
66	22.0	26.0	24.0	100.0	100.0	100.0	100.0	100.0
67	23.0	21.0	24.0	100.0	100.0	100.0	100.0	100.0
68	23.0	21.0	24.0	100.0	100.0	100.0	100.0	100.0
69	23.0	21.0	24.0	100.0	100.0	100.0	100.0	100.0
70	40.0	30.0	100.0	100.0	100.0	100.0	100.0	100.0
71	40.0	30.0	100.0	100.0	100.0	100.0	100.0	100.0
72	40.0	30.0	100.0	100.0	100.0	100.0	100.0	100.0
73	40.0	30.0	100.0	100.0	100.0	100.0	100.0	100.0
74	40.0	30.0	100.0	100.0	100.0	100.0	100.0	100.0
75	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(1) These assumptions are also used for the CalPEPRA 1.62% @ 65 formula (Plan T and Plan W).

(2) Retirement rate is 100% after a member accrues a benefit of 100% of final average earnings.

Actuarial Methods and Assumptions

(continued)

Retirement Rates

(continued)

	Rate (%)			
Age	CalPEPRA General Formula	CalPEPRA Safety – Probation Formula[1]	CalPEPRA Safety – Law Formula[1]	CalPEPRA Safety – Fire Formula[1]
50	0.0	2.5	11.0	6.5
51	0.0	2.5	11.5	8.0
52	4.0	3.0	12.0	9.0
53	1.5	3.0	16.0	10.0
54	1.5	5.5	17.0	12.0
55	2.5	10.0	28.0	21.0
56	3.5	10.0	18.0	20.0
57	5.5	15.0	17.5	22.0
58	7.5	20.0	22.0	25.0
59	7.5	20.0	26.0	31.5
60	7.5	100.0	100.0	100.0
61	7.5	100.0	100.0	100.0
62	14.0	100.0	100.0	100.0
63	14.0	100.0	100.0	100.0
64	14.0	100.0	100.0	100.0
65	18.0	100.0	100.0	100.0
66	22.0	100.0	100.0	100.0
67	23.0	100.0	100.0	100.0
68	23.0	100.0	100.0	100.0
69	23.0	100.0	100.0	100.0
70	30.0	100.0	100.0	100.0
71	30.0	100.0	100.0	100.0
72	30.0	100.0	100.0	100.0
73	30.0	100.0	100.0	100.0
74	30.0	100.0	100.0	100.0
75	100.0	100.0	100.0	100.0

(1) Retirement rate is 100% after a member accrues a benefit of 100% of final average earnings.

Actuarial Methods and Assumptions

(continued)

Retirement Age and Benefit for Deferred Vested Members:	For deferred vested members, we make the following retirement age assumptions: General 58 Safety 53 We assume that 20% of future General and 30% of future Safety deferred vested members will continue to work for a reciprocal employer. For these members, we assume 4.25% compensation increases for General and 5.00% for Safety per annum.
Liability Calculation for Current Deferred Vested Members:	Liability for a current deferred vested member is calculated based on salary, service, and eligibility for reciprocal benefit as provided by the Retirement System. For those members without salary information that have 3 or more years of service, we used an average salary. For those members without salary information that have less than 3 years of service or for those members without service information, we assumed a refund of account balance.
Future Benefit Accruals:	1.0 year of service per year of employment. There is no assumption to anticipate conversion of unused sick leave at retirement.
Unknown Data for Members:	Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.
Percent Married:	75% of male members and 50% of female members are assumed to be married at retirement or time of pre-retirement death.
Age of Spouse:	Female (or male) three years younger (or older) than spouse.
Net Investment Return:	7.25%; net of investment and administrative expenses.
Employee Contribution Crediting Rate:	5.00%, compounded semi-annually.
Consumer Price Index:	Increase of 3.00% per year, retiree COLA increases due to CPI subject to a 3.00% maximum change per year.

Actuarial Methods and Assumptions

(continued)

Individual Salary Increases

Annual Rate of Compensation Increase (%)		
Inflation: 3.00% per year, plus "across the board" real salary increases of 0.50% per year, plus the following merit and promotion increases:		
Years of Service	**General**	**Safety**
Less than 1	10.00	14.00
1	7.25	10.00
2	6.00	8.50
3	4.75	6.75
4	4.00	5.25
5	3.25	4.50
6	2.25	3.50
7	2.00	3.25
8	1.50	2.25
9	1.25	2.25
10	1.25	1.75
11	1.25	1.75
12	1.25	1.75
13	1.25	1.75
14	1.25	1.75
15	1.25	1.75
16	0.75	1.50
17	0.75	1.50
18	0.75	1.50
19	0.75	1.50
20 & over	0.75	1.50

In addition to the individual salary increase assumptions, we have applied an average two hours of additional salary annually for leap-year salary adjustment.

Actuarial Methods and Assumptions

(continued)

Additional Cashout Assumptions:

Non-CalPEPRA Formulas: Additional compensation amounts are expected to be received during a member's final average earnings period. The percentages used in this valuation are:

	Final One Year Salary	Final Three Year Salary
General Members	3.50%	2.80%
Safety - Probation	3.80%	2.80%
Safety - Law	5.20%	4.70%
Safety - Fire	2.00%	2.00%

The additional cashout assumptions are the same for service and disability retirements.

CalPEPRA Formulas: None

Increase in Section 7522.10 Compensation Limit: Increase of 3.00% per year from the valuation date.

Actuarial Value of Assets: Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual and the expected return on a market value basis, and is recognized over a five-year period.

Valuation Value of Assets: The Valuation Value of Assets is the Actuarial Value of Assets reduced by the value of the non-valuation reserves.

Actuarial Cost Method: Entry Age Actuarial Cost Method. Entry Age is the current age minus Vesting Credit. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by salaries, with Normal Cost determined as a level percentage of individual salary, as if the current benefit accrual rate had always been in effect. Effective December 31, 2013, the outstanding balance of the UAAL from the December 31, 2012 valuation was combined and re-amortized over a declining 20-year period. Any changes in UAAL due to actuarial gains or losses or due to changes in assumptions or methods will be amortized over separate 20-year periods. Any changes in UAAL due to plan amendments will be amortized over separate 15-year periods and any change in UAAL due to early retirement incentive programs will be amortized over a separate period of up to 5 years.

Please note that for Probation members who have prior benefit service in another OCERS plan, the normal cost rate for the current plan is calculated assuming their Entry Age is the date they entered service with their current plan.

Summary of Major Plan Provisions

This section summarizes the major provisions of OCERS included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Membership Eligibility:	Membership with OCERS begins with the day of employment in an eligible position by the County or a participating employer.
Non-CalPEPRA General Plans:	
2.5% @ 55 Plans	*(Orange County Sanitation District[1] and Law Library[2])*
Plan G	General members hired before September 21, 1979.
Plan H	General members hired on or after September 21, 1979.
	(1) Sanitation District members within Supervisors and Professional unit hired on or after October 1, 2010 are in Plan B *(2) Improvement for management employees is prospective only for service after June 30, 2005.*
2.7% @ 55 Plans	*(City of San Juan Capistrano, Orange County Employees except bargaining unit AFSCME members, Orange County Superior Court, Orange County Local Agency Formation Commission[1], Orange County Employees Retirement System[2], Children and Family Commission[3] and Orange County Fire Authority)*
Plan I	General members hired before September 21, 1979.
Plan J	General members hired on or after September 21, 1979.
	(1) Improvement is prospective only for service after June 23, 2005. *(2) Improvement for management employees is prospective only for service after June 30, 2005.* *(3) Improvement is prospective only for service after December 22, 2005.*
2.0% @ 55 Plans	*(Transportation Corridor Agency, Cemetery District - future service effective December 7, 2007 and General OCFA employees effective July 1, 2011)*
Plan M	General members hired before September 21, 1979.
Plan N	General members hired on or after September 21, 1979.
1.62% @ 65 Plans	*(Orange County Employees, Orange County Superior Court, Orange County Local Agency Formation Commission and Orange County Managers Unit)*
Plan O	County OCEA members and Superior Court members rehired on or after May 7, 2010, LAFCO members rehired on or after July 1, 2010 and County Managers unit members rehired on or after August 17, 2010 and not electing to rejoin Plan I.
Plan P	County OCEA members and Superior Court members hired on or after May 7, 2010, LAFCO members hired on or after July 1, 2010 and County Managers unit members hired on or after August 17, 2010 and not electing Plan J.
2.0% @ 57 Plan	*(City of San Juan Capistrano)*
Plan S	*General members hired on or after July 1, 2012.*
All Other General Employers:	
Plan A	General members hired before September 21, 1979.
Plan B	General members hired on or after September 21, 1979 and Sanitation District members within Supervisors and Professional unit hired on or after October 1, 2010.

Summary of Major Plan Provisions

(continued)

Membership Eligibility: (continued)

Non-CalPEPRA Safety Plans:

3% @ 50 Plans	*(Law Enforcement, Fire Authority and Probation)*
Plan E	Safety members hired before September 21, 1979.
Plan F	Safety members hired on or after September 21, 1979 and before April 9, 2010 for Law Enforcement, before July 1, 2011 for Safety employees of OCFA Executive Management, and before July 1, 2012 for other OCFA Safety employees.
3% @ 55 Plans	*(Law Enforcement and Fire Authority)*
Plan Q	Safety Law Enforcement members rehired on or after April 9, 2010, Safety employees of OCFA Executive Management rehired on or after July 1, 2011, and other OCFA Safety employees rehired on or after July 1, 2012 and previously in Plan E.
Plan R	Safety Law Enforcement members hired on or after April 9, 2010, Safety employees of OCFA Executive Management hired on or after July 1, 2011, and other OCFA Safety employees hired on or after July 1, 2012.

CalPEPRA General Plans:

1.62% @ 65 Plan	*(Orange County Employees except County Attorneys, Orange County Employees Retirement System except Management Employees, Children and Family Commission, Local Agency Formation Commission, and Orange County Superior Court)*
Plan T	General members with membership dates on or after January 1, 2013.
2.5% @ 67 Plan	*(All Other General Employers, Orange County Attorneys, Orange County Employees Retirement System Management Employees)*
Plan U	General Non-Orange County Transportation Authority members with membership dates on or after January 1, 2013 and Orange County Transportation Authority members with membership dates on or after January 1, 2015.
1.62% @ 65 Plan	*(City of San Juan Capistrano)*
Plan W	General members with membership dates on or after January 1, 2016 and not electing Plan U.

CalPEPRA Safety Plans:

2.7% @ 57 Plan	*(Law Enforcement, Fire Authority and Probation Members)*
Plan V	Safety members with membership dates on or after January 1, 2013.

Summary of Major Plan Provisions

(continued)

Final Compensation for Benefit Determination:

Plans A, E, G, I, M, O and Q	Highest consecutive twelve months of compensation earnable. (§31462.1) (FAS1)
Plans B, F, H, J, N, P, R and S	Highest consecutive thirty-six months of compensation earnable. (§31462) (FAS3)
Plan T	Highest consecutive thirty-six months of pensionable compensation. (§7522.32 and §7522.34) (FAS3)
Plans U, V and W	Highest consecutive thirty-six months of pensionable compensation. (§7522.10(c), §7522.32 and §7522.34) (FAS3)

Service:

Years of service. (Yrs)

Service Retirement Eligibility:

Plans A, B, G, H, I, J, M, N, O, P, S, T, and W	Age 50 with 10 years of service, or age 70 regardless of service, or after 30 years, regardless of age. (§31672)
	All part-time employees over age 55 with 10 years of employment may retire with 5 years of service.
Plan U	Age 52 with 5 years of service (§7522.20(a)) or age 70 regardless of service. (§31672.3)
Plans E, F, Q and R	Age 50 with 10 years of service, or after 20 years, regardless of age. (§31663.25)
	All part-time employees over age 55 with 10 years of employment may retire with 5 years of service.
Plan V	Age 50 with 5 years of service (§7522.20(d)) or age 70 regardless of service. (§31672.3)

Summary of Major Plan Provisions

(continued)

Benefit Formula: General Plans

2.5% @ 55	Retirement Age	Benefit Formula
Plan G (§31676.18)	50	(2.00% x FAS1 x Yrs)
Tier 1	55	(2.50% x FAS1 x Yrs)
	60	(2.50% x FAS1 x Yrs)
	62	(2.62% x FAS1 x Yrs)*
	65 or later	(2.62% x FAS1 x Yrs)*
Plan H (§31676.18)	50	(2.00% x FAS3 x Yrs)
Tier 2	55	(2.50% x FAS3 x Yrs)
	60	(2.50% x FAS3 x Yrs)
	62	(2.50% x FAS3 x Yrs)
	65 or later	(2.50% x FAS3 x Yrs)

* Reflects benefit factors from Plan A as they provide a better benefit than those under 2.5% @ 55.

2.7% @ 55	Retirement Age	Benefit Formula
Plan I (§31676.19)	50	(2.00% x FAS1 x Yrs)
Tier 1	55	(2.70% x FAS1 x Yrs)
	60	(2.70% x FAS1 x Yrs)
	62	(2.70% x FAS1 x Yrs)
	65 or later	(2.70% x FAS1 x Yrs)
Plan J (§31676.19)	50	(2.00% x FAS3 x Yrs)
Tier 2	55	(2.70% x FAS3 x Yrs)
	60	(2.70% x FAS3 x Yrs)
	62	(2.70% x FAS3 x Yrs)
	65 or later	(2.70% x FAS3 x Yrs)

2.0% @ 55	Retirement Age	Benefit Formula
Plan M (§31676.16)	50	(1.43% x FAS1 x Yrs)
Tier 1	55	(2.00% x FAS1 x Yrs)
	60	(2.34% x FAS1 x Yrs)**
	62	(2.62% x FAS1 x Yrs)**
	65 or later	(2.62% x FAS1 x Yrs)**
Plan N (§31676.16)	50	(1.43% x FAS3 x Yrs)
Tier 2	55	(2.00% x FAS3 x Yrs)
	60	(2.26% x FAS3 x Yrs)
	62	(2.37% x FAS3 x Yrs)
	65 or later	(2.43% x FAS3 x Yrs)***

** Reflects benefit factors from Plan A as they provide a better benefit than those under 2.0% @ 55.

*** Reflects benefit factors from Plan B as they provide a better benefit than those under 2.0% @ 55.

Summary of Major Plan Provisions

(continued)

Benefit Formula: General Plans (continued)

1.62% @ 65	Retirement Age	Benefit Formula
Plan O (§31676.01)	50	(0.79% x FAS1 x Yrs)
Tier 1	55	(0.99% x FAS1 x Yrs)
	60	(1.28% x FAS1 x Yrs)
	62	(1.39% x FAS1 x Yrs)
	65 or later	(1.62% x FAS1 x Yrs)
Plan P, Plan T and Plan W (§31676.01)	50	(0.79% x FAS3 x Yrs)
Tier 2	55	(0.99% x FAS3 x Yrs)
	60	(1.28% x FAS3 x Yrs)
	62	(1.39% x FAS3 x Yrs)
	65 or later	(1.62% x FAS3 x Yrs)

2.0% @ 57	Retirement Age	Benefit Formula
Plan S (§31676.12)	50	(1.34% x FAS3 x Yrs)
Tier 2	55	(1.77% x FAS3 x Yrs)
	60	(2.34% x FAS3 x Yrs)
	62	(2.62% x FAS3 x Yrs)
	65 or later	(2.62% x FAS3 x Yrs)

All Other General Members	Retirement Age	Benefit Formula
Plan A (§31676.12)	50	(1.34% x FAS1 x Yrs)
Tier 1	55	(1.77% x FAS1 x Yrs)
	60	(2.34% x FAS1 x Yrs)
	62	(2.62% x FAS1 x Yrs)
	65 or later	(2.62% x FAS1 x Yrs)
Plan B (§31676.1)	50	(1.18% x FAS3 x Yrs)
Tier 2	55	(1.49% x FAS3 x Yrs)
	60	(1.92% x FAS3 x Yrs)
	62	(2.09% x FAS3 x Yrs)
	65 or later	(2.43% x FAS3 x Yrs)
Plan U (§7522.20(a))	52	(1.00% x FAS3 x Yrs)
	55	(1.30% x FAS3 x Yrs)
	60	(1.80% x FAS3 x Yrs)
	62	(2.00% x FAS3 x Yrs)
	65	(2.30% x FAS3 x Yrs)
	67 or later	(2.50% x FAS3 x Yrs)

Summary of Major Plan Provisions

(continued)

Benefit Formula: Safety Plans

3.0% @ 50	Retirement Age	Benefit Formula
Plan E (§31664.1)	50	(3.00% x FAS1 x Yrs)
Tier 1	55	(3.00% x FAS1 x Yrs)
	60 or later	(3.00% x FAS1 x Yrs)
Plan F (§31664.1)	50	(3.00% x FAS3 x Yrs)
Tier 2	55	(3.00% x FAS3 x Yrs)
	60 or later	(3.00% x FAS3 x Yrs)

3.0% @ 55	Retirement Age	Benefit Formula
Plan Q (§31664.2)	50	(2.29% x FAS1 x Yrs)
Tier 1	55	(3.00% x FAS1 x Yrs)
	60 or later	(3.00% x FAS1 x Yrs)
Plan R (§31664.2)	50	(2.29% x FAS3 x Yrs)
Tier 2	55	(3.00% x FAS3 x Yrs)
	60 or later	(3.00% x FAS3 x Yrs)
Plan V (§7522.25(d))	50	(2.00% x FAS3 x Yrs)
	55	(2.50% x FAS3 x Yrs)
	57 or later	(2.70% x FAS3 x Yrs)

Summary of Major Plan Provisions

(continued)

Maximum Benefit:

Plans A, B, E, F, G, H, I, J, M, N, O, P, Q, R, S, T and W	100% of Highest Average Compensation. (§31676.01, §31676.1, §31676.12, §31676.16, §31676.18, §31676.19, §31664.1, §31664.2)
Plans U and V	None

Ordinary Disability:

General Plans:

Plans A, B, G, H, I, J, M, N, O, P, S, T, U and W

Eligibility	Five years of service. (§31720)
Benefit Formula	Plans A, G, I, M, and O: 1.8% per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 62, but the total benefit cannot be more than one-third of Final Compensation. (§31727.1) Plans B, H, J, N, P, S, T, U and W: 1.5% per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 65, but the total benefit cannot be more than one-third of Final Compensation. (§31727)

Safety Plans:

Plans E, F, Q, R and V

Eligibility	Five years of service. (§31720)
Benefit Formula	1.8% per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 55, but the total benefit cannot be more than one-third of Final Compensation (§31727.2) For all members, 100% of the service retirement benefit will be paid, if greater.

Line-of-Duty Disability:

All Members:

Eligibility	No age or service requirements. (§31720)
Benefit Formula	50% of the Final Compensation or 100% of Service Retirement benefit, if greater. (§31727.4)

Pre-Retirement Death

All Members:

Eligibility	None
Benefit	Refund of employee contributions with interest plus one month's compensation for each year of service to a maximum of six month's compensation. (§31781) A lump sum benefit in the amount of $1,000 is payable upon death of a member (with 10 years of service) to his/her eligible beneficiary. (§31790)
Death in line of duty	50% of Final Compensation or 100% of Service Retirement benefit, if greater, payable to spouse or minor-children. (§31787) Or

Vested Members:

Eligibility	Five years of service.
Benefit	60% of the greater of Service or Ordinary Disability Retirement benefit payable to eligible surviving spouse (§31765.1, §31781.1), in lieu of §31781.

Summary of Major Plan Provisions

(continued)

Death After Retirement:

All Members:

Service or Ordinary Disability Retirement	60% of member's unmodified allowance continued to eligible spouse. (§31760.1) A lump sum benefit in the amount of $1,000 is payable upon death of a member (with 10 years of service) to his/her eligible beneficiary. (§31790) An eligible spouse is a surviving spouse who was married to or registered with the member one year prior to the effective retirement date. Certain surviving spouses or domestic partners may also be eligible if marriage or domestic partnership was at least two years prior to the date of death and the surviving spouse or domestic partner has attained age 55. (§31760.1)
Line-of-Duty Disability	100% of member's allowance continued to eligible spouse. (§31786) A lump sum benefit in the amount of $1,000 is payable upon death of a member (with 10 years of service) to his/her eligible beneficiary. (§31790)

Withdrawal Benefits:

Less than Five Years of Service	Refund of accumulated employee contributions with interest or earned benefit at age 70 (§31628). Effective January 1, 2003, a member may also elect to leave their contributions on deposit in the retirement fund. (§31629.5)
Five or More Years of Service	If contributions left on deposit, entitled to earned benefits commencing at any time after eligible to retire. (§31700)

Post-retirement Cost-of-Living Benefits:

Future changes based on Consumer Price Index to a maximum of 3% per year, excess "banked." (§31870.1)

Supplemental Benefit:

Non-vested supplemental COLA and medical benefits are also paid by the System to eligible retirees and survivors. These benefits have been excluded from this valuation.

Member Contributions:

Non-CalPEPRA General Plans:

Plan A	
Basic	Provide for an average annuity at age 60 equal to 1/200 of FAS1. (§31621.5)
Cost-of-Living	Provide for 50% of future Cost-of-Living costs.
Plan B	
Basic	Provide for an average annuity at age 60 equal to 1/120 of FAS3. (§31621)
Cost-of-Living	Provide for 50% of future Cost-of-Living costs.
Plans G, H, I and J	
Basic	Provide for an average annuity at age 55 equal to 1/100 of FAS3 (FAS1 for Plans G and I). (§31621.8)
Cost-of-Living	Provide for 50% of future Cost-of-Living costs.
Plans M, N, O and P	
Basic	Provide for an average annuity payable at age 60 equal to 1/120 of FAS3 (FAS1 for Plans M and O). (§31621)
Cost-of-Living	Provide for 50% of future Cost-of-Living costs.
Plan S	
Basic	Provide for an average annuity at age 60 equal to 1/100 of FAS3. (§31621.2)
Cost-of-Living	Provide for 50% of future Cost-of-Living costs.

Summary of Major Plan Provisions

(continued)

Member Contributions: (continued)

Non-CalPEPRA Safety Plans:	
Plans E and Q	
Basic	Provide for an average annuity at age 50 equal to 1/200 FAS1. (§31639.5)
Cost-of-Living	Provide for 50% of future Cost-of-Living costs.
Plans F and R	
Basic	Provide for an average annuity at age 50 equal to 1/100 of FAS3. (§31639.25)
Cost-of-Living	Provide for 50% of future Cost-of-Living costs.
CalPEPRA Plans:	
Plans T, U, V and W	50% of total Normal Cost rate.

Other Information:

Non-CalPEPRA Safety members with 30 or more years of service are exempt from paying members contributions. The same applies for General members hired on or before March 7, 1973.

Note: The summary of major plan provisions is designed to outline principal plan benefits as interpreted for purposes of the actuarial valuation. If the System should find the plan summary not in accordance with the actual provisions, the System should alert the actuary so that both can be sure the proper provisions are valued.

Experience Analysis

(2007 - 2011)

(Dollars in Thousands)

Gains & Losses in Actuarial Accrued Liabilities During Years Ended December 31, Resulting from Differences Between Assumed Experience & Actual Experience

	Gains (or Losses) Per Year				
Type of Activity	2007	2008	2009	2010	2011
Retirements	$ -	$ (54,911)	$ -	$ -	$ -
Pay Increases	(136,417)	(97,561)	77,858	215,936	154,946
COLA Increases	-	-	-	-	-
Investment Income	176,681	(257,752)	(322,523)	(224,044)	(388,935)
Other	(43,538)	(17,159)	(14,931)	63,174	(38,159)
Gain (or Loss) During Year From Experience	$ (3,274)	$ (427,383)	$ (259,596)	$ 55,066	$ (272,148)
Nonrecurring Items:					
Method and Procedure Changes	-	-	-	-	-
Plan Amendments and Assumption Changes	(237,147)	(115,764)	-	-	(363,842)
Correction to Include All Premium Pay Items	-	-	(228,051)	-	-
Composite Gain (or Loss) During Year	$ (240,421)	$ (543,147)	$ (487,647)	$ 55,066	$ (635,990)

(2012-2016)

(Dollars in Thousands)

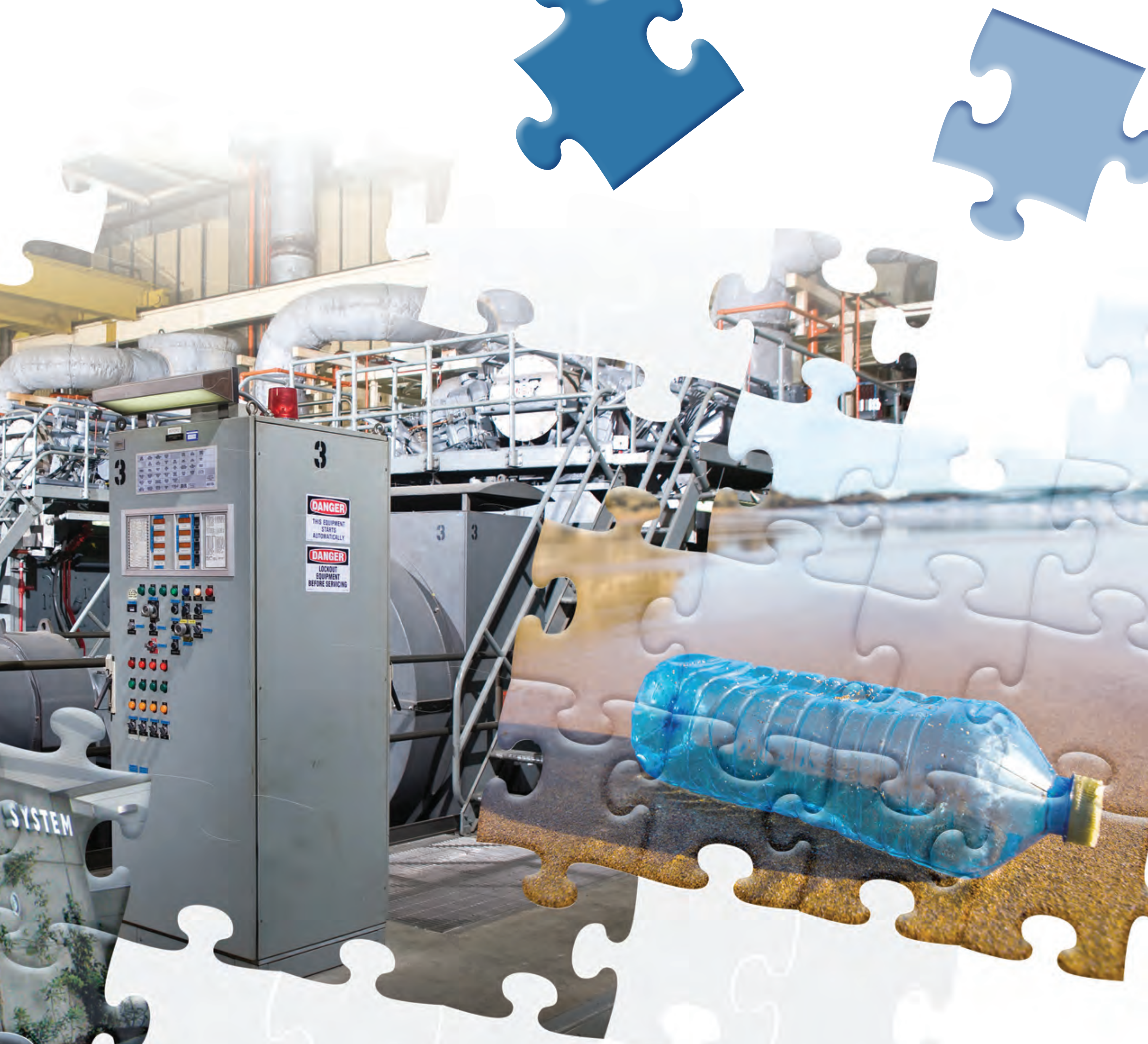
Gains & Losses in Actuarial Accrued Liabilities During Years Ended December 31, Resulting from Differences Between Assumed Experience & Actual Experience

	Gains (or Losses) Per Year				
Type of Activity	2012	2013	2014	2015	2016
Retirements	$ -	$ -	$ -	$ (62,070)	$ -
Pay Increases	244,750	294,326	125,746	282,696	(204,603)
COLA Increases	-	-	153,484	119,367	186,039
Investment Income	(387,808)	176,930	9,570	(229,138)	(113,103)
Other	(19,979)	30,354	(4,476)	10,056	(4,119)
Gain (or Loss) During Year From Experience	$ (163,037)	$ 501,610	$ 284,324	$ 120,911	$ (135,786)
Nonrecurring Items:					
Method of Procedure Changes	-	-	-	-	92,587[1]
Plan Amendments and Assumption Changes	(934,619)	-	122,171	-	-
Correction to Include All Premium Pay Items	-	-	-	-	-
Composite Gain (or Loss) During Year	$ (1,097,656)	$ 501,610	$ 406,495	$ 120,911	$ (43,199)

[1] Includes leap year salary adjustment, revised benefit and eligibility service credits from V3 pension administration system and automatic continuance benefit for child beneficiary.

Section V

Statistical



Orange County Sanitation District (OCSD)

The Orange County Sanitation District's mission is to protect public health and the environment by providing effective wastewater collection, treatment and disposal services for approximately 2.6 million residents in central and northwest Orange County. In order to fulfill this mission and meet customers needs and expectations, OCSD employs the best possible workforce in terms of safety, productivity, customer service and training, as well as partnering with others. Through an innovative partnership with the Orange County Water District, OCSD provides 130 million gallons of treated wastewater to the Groundwater Replenishment System (GWRS), which produces up to 100 million gallons of purified water for residents of Orange County. OCSD also safely collects, treats and recycles, on a daily basis, the millions of gallons of wastewater generated by residents in northern and central Orange County through miles of regional sewers and pump stations to the treatment facilities. Other important services include recycling and reducing the amount of organic material entering our landfills and collecting and treating up to 10 million gallons per day of dry weather urban runoff to help protect local beaches from contamination.

Statistical Section Review

The Statistical Section of the Comprehensive Annual Financial Report provides additional information in order to promote a more comprehensive understanding of the financial statements, note disclosures and supplemental information.

The Governmental Accounting Standards Board (GASB) established five categories of information to be provided in the Statistical Section: Financial Trends, Revenues, Expenses, Demographic and Economic, and Operating Information.

This section provides multi-year trend information to facilitate an understanding of how OCERS as an organization has changed over time.

Information of financial trends, revenues and expenses for the last ten years is presented in the Schedules of Changes in Fiduciary Net Position, Schedule and Graph of Fiduciary Revenue by Source, and Schedule and Graph of Expenses by Type.

Schedule of Changes in Fiduciary Net Position - Pension Trust Fund

2008 – 2017

(Dollars in Thousands)

Years Ended December 31	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Additions										
Employer Contributions	$ 433,911	$ 377,976	$ 372,437	$ 387,585	$ 406,805	$ 427,095	$ 625,520	$ 571,298	$ 567,196	$ 572,104
Employee Contributions	172,291	171,928	177,929	183,820	191,215	209,301	232,656	249,271	258,297	262,294
Investment Income/ (Loss)	(1,625,928)	1,076,073	886,693	48,753	1,002,763	1,151,193	497,760	(11,903)	1,060,040	1,938,025
Net Securities Lending	6,145	3,989	1,849	1,703	2,007	1,454	1,435	1,030	1,203	1,610
Total Additions	$ (1,013,581)	$ 1,629,966	$ 1,438,908	$ 621,861	$ 1,602,790	$ 1,789,043	$ 1,357,371	$ 809,696	$ 1,886,736	$ 2,774,033
Deductions										
Benefits	$ 419,502	$ 461,530	$ 459,383	$ 493,749	$ 541,154	$ 586,284	$ 630,678	$ 675,963	$ 717,976	$ 764,344
Administrative Expenses	11,006	10,947	12,368	12,828	14,209	11,705	11,905	12,521	16,870	17,002
Total Deductions	$ 430,508	$ 472,477	$ 471,751	$ 506,577	$ 555,363	$ 597,989	$ 642,583	$ 688,484	$ 734,846	$ 781,346
Changes in Fiduciary Net Position	$ (1,444,089)	$ 1,157,489	$ 967,157	$ 115,284	$ 1,047,427	$ 1,191,054	$ 714,788	$ 121,212	$ 1,151,890	$ 1,992,687

Schedule of Changes in Fiduciary Net Position - Health Care Fund - County

2008 – 2017

(Dollars in Thousands)

Years Ended December 31	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Additions										
Employer Contributions	N/A	N/A	$ 14,582	$ 39,694	$ 27,395	$ 66,057	$ 64,852	$ 36,557	$ 42,411	$ 59,864
Investment Income/(Loss)	N/A	N/A	8,561	(641)	10,308	13,702	7,374	(698)	16,902	34,087
Net Securities Lending	N/A	N/A	18	18	21	20	25	18	21	32
Total Additions	$ -	$ -	$ 23,161	$ 39,071	$ 37,724	$ 79,779	$ 72,251	$ 35,877	$ 59,334	$ 93,983
Deductions										
Benefits	N/A	N/A	$ 25,514	$ 26,250	$ 27,089	$ 28,293	$ 29,299	$ 30,107	$ 30,818	$ 32,042
Administrative Expenses	N/A	N/A	18	18	19	20	20	22	22	22
Total Deductions	$ -	$ -	$ 25,532	$ 26,268	$ 27,108	$ 28,313	$ 29,319	$ 30,129	$ 30,840	$ 32,064
Changes in Fiduciary Net Position	$ -	$ -	$ (2,371)	$ 12,803	$ 10,616	$ 51,466	$ 42,932	$ 5,748	$ 28,494	$ 61,919

Schedule of Changes in Fiduciary Net Position - Health Care Fund - OCFA

2008 – 2017

(Dollars in Thousands)

Years Ended December 31	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Additions										
Employer Contributions	N/A	N/A	$ 3,634	$ 3,660	$ 3,590	$ 18,349	$ 2,667	$ 2,624	$ 2,414	$ 2,380
Investment Income/(Loss)	N/A	N/A	1,358	(7)	1,736	1,963	1,583	(99)	2,845	5,113
Net Securities Lending	N/A	N/A	3	3	3	4	5	3	3	4
Total Additions	$ -	$ -	$ 4,995	$ 3,656	$ 5,329	$ 20,316	$ 4,255	$ 2,528	$ 5,262	$ 7,497
Deductions										
Benefits	N/A	N/A	$ 2,158	$ 2,649	$ 2,804	$ 2,550	$ 3,138	$ 3,448	$ 3,867	$ 3,978
Administrative Expenses	N/A	N/A	9	9	9	14	22	22	22	27
Total Deductions	$ -	$ -	$ 2,167	$ 2,658	$ 2,813	$ 2,564	$ 3,160	$ 3,470	$ 3,889	$ 4,005
Changes in Fiduciary Net Position	$ -	$ -	$ 2,828	$ 998	$ 2,516	$ 17,752	$ 1,095	$ (942)	$ 1,373	$ 3,492

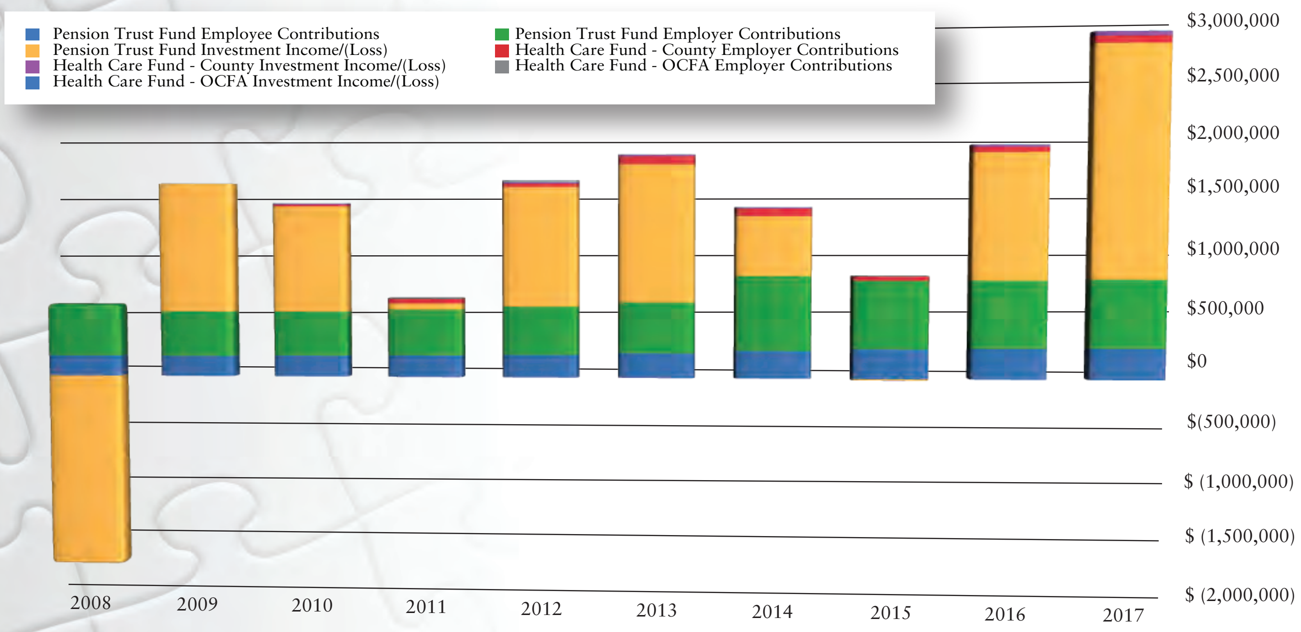
N/A: Detailed information not available.

Schedule and Graph of Fiduciary Revenues by Source

2008 – 2017

(Dollars in Thousands)

Years Ended December 31	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Pension Trust Fund										
Employee Contributions	$ 172,291	$ 171,928	$ 177,929	$ 183,820	$ 191,215	$ 209,301	$ 232,656	$ 249,271	$ 258,297	$ 262,294
Employer Contributions	433,911	377,976	372,437	387,585	406,805	427,095	625,520	571,298	567,196	572,104
Investment Income /(Loss)[1, 2]	(1,619,783)	1,080,062	888,542	50,456	1,004,770	1,152,647	499,195	(10,873)	1,061,243	1,939,635
Health Care Fund - County										
Employer Contributions	N/A	N/A	14,582	39,694	27,395	66,057	64,852	36,557	42,411	59,864
Investment Income /(Loss)[1]	N/A	N/A	8,579	(623)	10,329	13,722	7,399	(680)	16,923	34,119
Health Care Fund - OCFA										
Employer Contributions	N/A	N/A	3,634	3,660	3,590	18,349	2,667	2,624	2,414	2,380
Investment Income /(Loss)[1]	N/A	N/A	1,361	(4)	1,739	1,967	1,588	(96)	2,848	5,117
Total	$ (1,013,581)	$ 1,629,966	$ 1,467,064	$ 664,588	$ 1,645,843	$ 1,889,138	$ 1,433,877	$ 848,101	$ 1,951,332	$ 2,875,513



N/A: Detailed information not available.

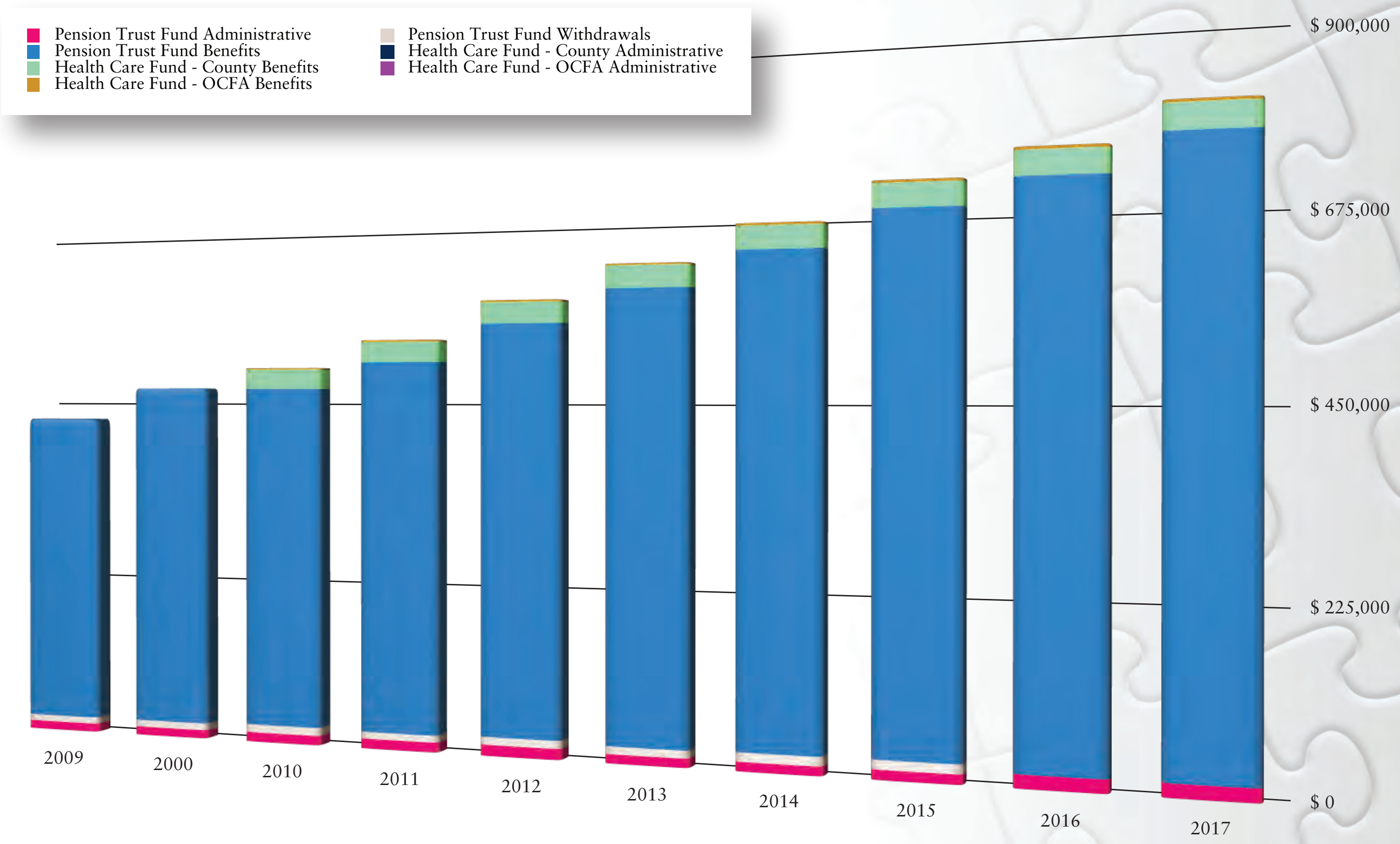
[1] Investment Income / (Loss) includes net appreciation/(depreciation) less investment manager fees, security lending fees and commission recapture.

[2] Beginning in 2013, Investment Income / (Loss) includes net appreciation/(depreciation) less investment manager fees, investment department expenses, security lending fees and commission recapture.

Schedule and Graph of Expenses by Type

2008 – 2017
(Dollars in Thousands)

Years Ended December 31	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Pension Trust Fund										
Administrative	$ 11,006	$ 10,947	$ 12,368	$ 12,828	$ 14,209	$ 11,705	$ 11,905	$ 12,521	$ 16,870	$ 17,002
Withdrawals										
Separation	7,022	7,604	8,566	6,833	8,078	7,516	9,843	10,764	9,411	9,294
Death	1,337	1,448	1,880	2,041	2,019	2,348	1,887	1,093	4,232	4,572
Benefits	411,143	452,478	448,937	484,875	531,057	576,420	618,948	664,106	704,333	750,478
Health Care Fund - County										
Administrative	N/A	N/A	18	18	19	20	20	22	22	22
Benefits	N/A	N/A	25,514	26,250	27,089	28,293	29,299	30,107	30,818	32,042
Health Care Fund - OCFA										
Administrative	N/A	N/A	9	9	9	14	22	22	22	27
Benefits	N/A	N/A	2,158	2,649	2,804	2,550	3,138	3,448	3,867	3,978
Total	$ 430,508	$ 472,477	$499,450	$ 535,503	$ 585,284	$ 628,866	$ 675,062	$ 722,083	$ 769,575	$ 817,415



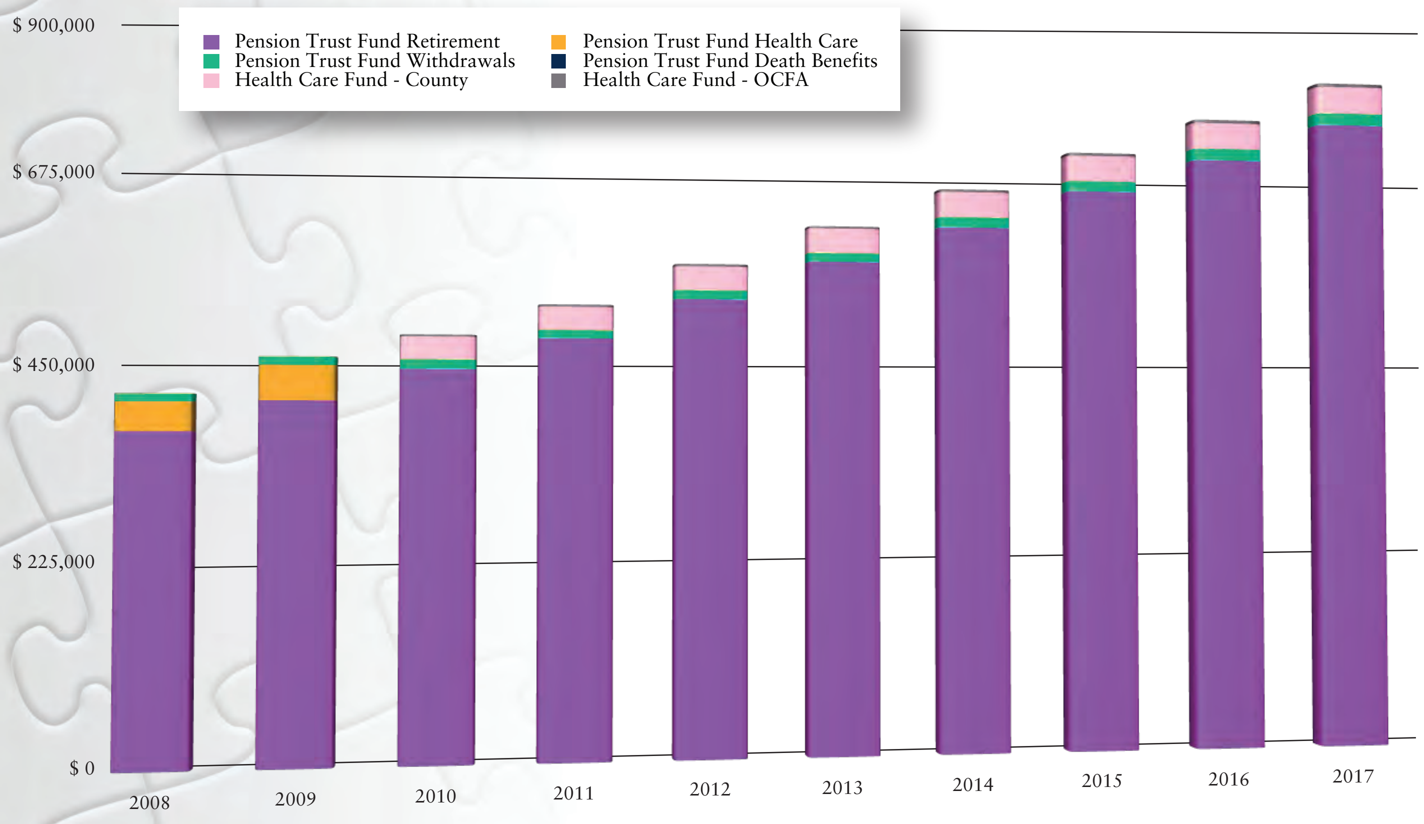
N/A: Detailed information not available.

Schedule and Graph of Benefit Expenses by Type

2008 – 2017

(Dollars in Thousands)

Years Ended December 31	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Pension Trust Fund										
Retirement	$ 376,937	$ 411,959	$ 448,099	$ 484,012	$ 530,269	$ 575,633	$ 618,233	$ 663,582	$ 703,949	$ 749,784
Health Care [1]	33,480	39,858	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Withdrawals	8,359	9,052	10,446	8,874	10,097	9,864	11,730	11,857	13,643	13,866
Death Benefits	726	661	838	863	788	787	715	524	384	694
Health Care Fund - County										
Health Care	N/A	N/A	25,514	26,250	27,089	28,293	29,299	30,107	30,818	32,042
Health CareFund - OCFA										
Health Care	N/A	N/A	2,158	2,649	2,804	2,550	3,138	3,448	3,867	3,978
Total	**$ 419,502**	**$ 461,530**	**$ 487,055**	**$ 522,648**	**$ 571,047**	**$ 617,127**	**$ 663,115**	**$ 709,518**	**$ 752,661**	**$ 800,364**



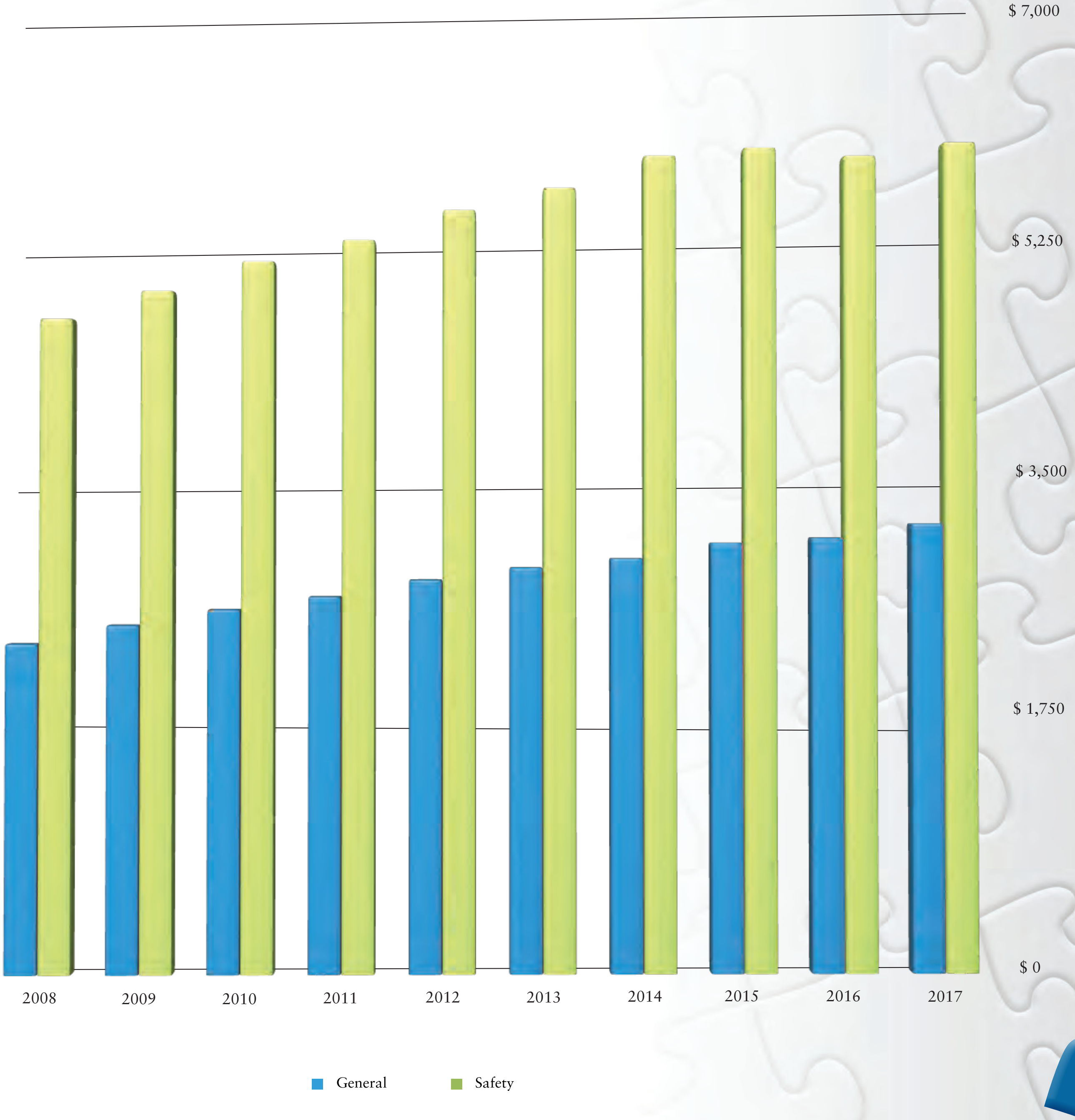
N/A: Detailed information not available.

[1] Health care benefits for 2008 and 2009 encompass all plans, including 401(h), which are reported as trust funds, and 115, which are reported as agency funds.

Schedule and Graph of Average Monthly Pension Check

2008 – 2017

Years Ended December 31	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
General	$ 2,373	$ 2,508	$ 2,621	$ 2,714	$ 2,836	$ 2,924	$ 2,991	$ 3,103	$ 3,142	$ 3,244
Safety	$ 4,724	$ 4,926	$ 5,141	$ 5,297	$ 5,516	$ 5,679	$ 5,914	$ 5,974	$ 5,917	$ 6,017



* Year 2006 includes health grant

Source: OCERS' Pension Gold Information System and V3 Pension Administration System Solution

Schedule of Average Pension Benefit Payments by Years of Service

	Years of Service						
Service Retirement Effective Dates	0-5	5-10	10-15	15-20	20-25	25-30	30 & Over
Period 1/1/08-12/31/08							
Average Monthly Pension Benefits	$ 321	$ 876	$ 1,784	$ 2,451	$ 3,793	$ 5,323	$ 7,687
Monthly Final Average Salary	$ 2,539	$ 4,166	$ 5,512	$ 5,330	$ 6,484	$ 6,864	$ 8,424
Number of Retired Members	19	31	83	90	78	91	97
Period 1/1/09-12/31/09							
Average Monthly Pension Benefits	$ 381	$ 950	$ 1,821	$ 2,716	$ 3,711	$ 5,852	$ 7,467
Monthly Final Average Salary	$ 3,766	$ 4,228	$ 5,564	$ 6,006	$ 6,417	$ 7,669	$ 8,378
Number of Retired Members	26	45	102	87	110	106	124
Period 1/1/10-12/31/10							
Average Monthly Pension Benefits	$ 587	$ 986	$ 1,855	$ 2,929	$ 4,046	$ 5,922	$ 6,856
Monthly Final Average Salary	$ 3,666	$ 4,800	$ 5,537	$ 6,291	$ 6,962	$ 7,764	$ 7,741
Number of Retired Members	23	45	108	106	130	127	129
Period 1/1/11-12/31/11							
Average Monthly Pension Benefits	$ 678	$ 1,057	$ 1,689	$ 3,054	$ 4,257	$ 5,910	$ 6,766
Monthly Final Average Salary	$ 4,843	$ 5,825	$ 5,475	$ 6,497	$ 7,314	$ 7,874	$ 7,650
Number of Retired Members	16	55	111	86	120	123	155
Period 1/1/12-12/31/12							
Average Monthly Pension Benefits	$ 647	$ 1,142	$ 1,701	$ 2,957	$ 4,058	$ 5,802	$ 7,015
Monthly Final Average Salary	$ 5,988	$ 5,398	$ 5,672	$ 6,347	$ 6,759	$ 7,702	$ 7,750
Number of Retired Members	20	71	128	88	187	145	172
Period 1/1/13-12/31/13							
Average Monthly Pension Benefits	$ 435	$ 1,166	$ 2,039	$ 2,946	$ 3,794	$ 6,409	$ 7,732
Monthly Final Average Salary	$ 8,199	$ 6,347	$ 6,458	$ 6,492	$ 6,431	$ 8,432	$ 8,482
Number of Retired Members	29	55	139	82	161	147	131
Period 1/1/14-12/31/14							
Average Monthly Pension Benefits	$ 421	$ 1,152	$ 1,925	$ 3,188	$ 4,117	$ 6,444	$ 6,719
Monthly Final Average Salary	$ 8,176	$ 6,955	$ 6,301	$ 6,961	$ 7,003	$ 8,463	$ 7,349
Number of Retired Members	23	45	146	96	143	192	138
Period 1/1/15-12/31/15							
Average Monthly Pension Benefits	$ 582	$ 1,263	$ 1,755	$ 2,850	$ 3,895	$ 5,679	$ 7,235
Monthly Final Average Salary	$ 8,802	$ 6,888	$ 5,970	$ 6,673	$ 6,800	$ 7,893	$ 8,352
Number of Retired Members	22	63	128	119	110	200	182
Period 1/1/16-12/31/16							
Average Monthly Pension Benefits	$ 427	$ 1,244	$ 2,135	$ 2,886	$ 4,272	$ 5,549	$ 6,782
Monthly Final Average Salary	$ 8,298	$ 6,907	$ 6,911	$ 6,580	$ 7,383	$ 7,651	$ 7,762
Number of Retired Members	24	56	121	120	113	195	163
Period 1/1/17-12/31/17							
Average Monthly Pension Benefits	$ 541	$ 1,215	$ 2,073	$ 3,062	$ 4,513	$ 5,851	$ 7,069
Monthly Final Average Salary	$ 7,952	$ 6,800	$ 6,844	$ 6,810	$ 7,743	$ 7,975	$ 7,931
Number of Retired Members	21	47	122	147	112	190	153

Source: OCERS' Pension Gold Information System and V3 Pension Administration System Solution

Schedule of Pension Benefit Recipients by Type of Benefit

December 31, 2017

Monthly Benefit	Normal Retirement for Age and Service	Survivor Payment - Normal Retirement	Service-Connected Disability Retirement	Nonservice-Connected Disability Retirement	Survivor Payment - Disbaility Retirement	DRO (Domestic Relations Order Payees)	Active Deaths	Total
$1-500	591	125	3	7	13	73	14	826
$501-1,000	1,066	249	2	28	37	96	94	1,572
$1,001-1,500	1,326	203	12	76	25	91	84	1,817
$1,501-2,000	1,140	146	96	77	23	58	47	1,587
$2,001-2,500	1,143	122	223	22	27	48	24	1,609
$2,501-3,000	996	104	208	21	37	35	12	1,413
$3,001-3,500	860	74	124	11	16	25	6	1,116
$3,501-4,000	748	56	107	9	17	11	7	955
$4,001-4,500	650	41	120	1	16	4	6	838
$4,501-5,000	643	34	51	3	14	5	7	757
$5,001-5,500	530	27	38	3	3	7	2	610
$5,501-6,000	509	16	32	2	5	1	3	568
$6,001-6,500	435	13	20	-	1	1	-	470
$6,501-7,000	388	10	24	-	3	-	2	427
Over $7,000	2,215	24	125	1	15	-	2	2,382
Total	13,240	1,244	1,185	261	252	455	310	16,947

Definition of Terms

Eligible Spouse: A member's spouse is considered eligible if the member has been legally married for at least one year at the time of retirement and remains married throughout the member's retirement. Eligible Spouse also includes Qualified Domestic Partner registered in accordance with applicable Family Law provisions.

Eligible Child: An eligible child is an unmarried child under the age of 18, or under the age of 22 if a full-time student. This includes adopted children. Eligible Child can also include a stepchild living or domiciled with the member at the time of the member's death for purposes of an active member Nonservice-connected or Service-connected death benefit only.

Source: OCERS' Pension Gold Information System and V3 Pension Administration System Solution

Schedule of Pension Benefit Recipients by Option Selected

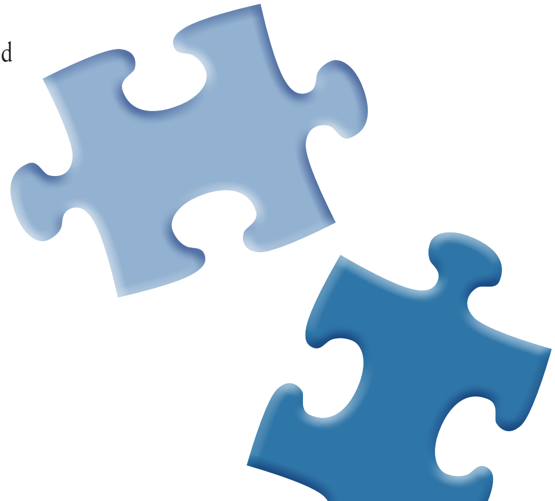
December 31, 2017

Monthly Benefit	UM	OP1	OP2	OP3	OP4	DB	UMC	O2C	O3C	O4C	SCDC	NSCDC	LSRC	AN	Total
$1-500	558	1	30	2	2	73	120	10	8	-	1	12	1	8	826
$501-1,000	1,045	1	47	1	2	96	269	13	4	2	12	64	16	-	1,572
$1,001-1,500	1,364	1	45	3	1	91	219	10	1	-	6	70	6	-	1,817
$1,501-2,000	1,269	1	36	5	2	58	160	10	3	1	3	33	6	-	1,587
$2,001-2,500	1,353	-	29	-	6	48	136	16	-	-	1	18	2	-	1,609
$2,501-3,000	1,203	-	16	4	2	35	135	6	1	-	3	8	-	-	1,413
$3,001-3,500	966	1	23	3	2	25	79	12	-	-	1	4	-	-	1,116
$3,501-4,000	843	1	10	2	8	11	69	7	-	-	1	1	2	-	955
$4,001-4,500	749	-	16	2	4	4	56	4	-	-	2	1	-	-	838
$4,501-5,000	674	-	17	2	4	5	46	5	-	-	1	3	-	-	757
$5,001-5,500	551	-	15	1	4	7	26	5	1	-	-	-	-	-	610
$5,501-6,000	530	1	7	-	5	1	19	3	-	-	1	1	-	-	568
$6,001-6,500	441	-	10	-	4	1	12	2	-	-	-	-	-	-	470
$6,501-7,000	402	1	4	-	5	-	12	2	-	-	-	1	-	-	427
Over $7,000	2,304	1	23	2	11	-	35	5	-	-	-	-	1	-	2,382
Total	14,252	9	328	27	62	455	1,393	110	18	3	32	216	34	8	16,947

Definition of Options:

UM: Unmodified -- Maximum retirement allowance
OP1: Option 1 -- Reduced retirement allowance, at death of retiree beneficiary receives remaining balance on account
OP2: Option 2 -- Reduced retirement allowance
OP3: Option 3 -- Reduced retirement allowance
OP4: Option 4 -- Reduced retirement allowance
DB: DRO benefit -- Benefit as provided in Domestic Relations Order
UMC: Unmodified continuance -- Beneficiary receives 60% of maximum retirement allowance
O2C: Option 2 continuance -- Beneficiary receives same monthly allowance
O3C: Option 3 continuance -- Beneficiary receives 50% of monthly allowance
O4C: Option 4 continuance -- Multiple beneficiaries receive allowance as previously approved
SCDC: SCD continuance -- Service Connected Disability
NSCDC: NSCD continuance -- Non Service Connected Disability
LSRC: Lump sum and reduced continuance
AN: Annuity

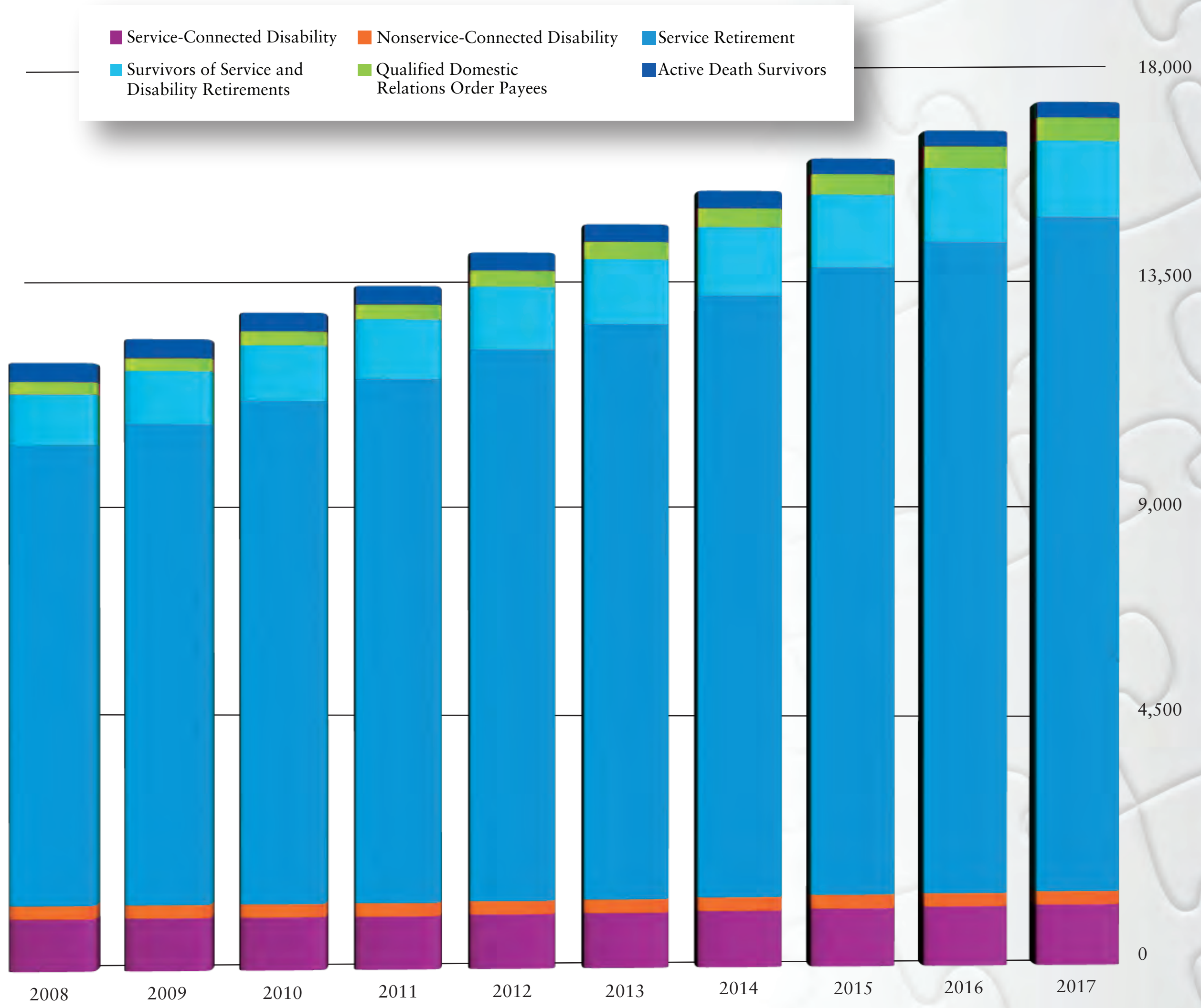
Source: OCERS' Pension Gold Information System and V3 Pension Administration System Solution



Schedule and Graph of Pension Benefit Recipients

2008 – 2017

Years Ended December 31	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Service-Connected Disability	1,009	1,022	1,027	1,032	1,059	1,072	1,098	1,131	1,161	1,185
Nonservice-Connected Disability	258	252	254	259	260	263	265	271	257	261
Service Retirement	8,924	9,322	9,767	10,189	10,739	11,226	11,760	12,278	12,768	13,240
Survivors of Service and Disability Retirements	978	1,031	1,079	1,160	1,221	1,261	1,336	1,423	1,448	1,496
Qualified Domestic Relations Order Payees	238	248	272	289	314	340	366	399	426	455
Active Death Survivors	371	368	363	360	354	343	344	308	309	310
Total	11,778	12,243	12,762	13,289	13,947	14,505	15,169	15,810	16,369	16,947



Source: OCERS' Pension Gold Information System and V3 Pension Administration System Solution

Schedule of Average Retirement Age

2008 – 2017

Years Ended December 31	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
General	59.82	60.31	60.55	60.65	60.42	61.32	60.79	59.37	59.44	60.79
Safety	54.03	54.98	54.18	54.56	54.33	54.80	54.06	53.51	53.58	55.09

Schedule of Average Years of Service at Retirement

2008 – 2017

Years Ended December 31	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
General	20.44	20.79	20.53	20.82	20.88	20.00	21.13	18.22	19.56	21.41
Safety	23.77	22.63	23.91	25.27	24.41	24.25	24.47	24.18	22.81	23.92

Schedule of Beneficiaries Receiving a Pension

2008 – 2017

Years Ended December 31	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
General	1,214	1,253	1,286	1,352	1,398	1,503	1,457	1,498	1,514	1,540
Safety	135	146	156	168	177	187	223	233	243	266
Total	1,349	1,399	1,442	1,520	1,575	1,690	1,680	1,731	1,757	1,806

Schedule of Active and Deferred Members

2008 – 2017

Years Ended December 31	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
General										
Active	19,795	18,873	18,155	17,717	17,559	17,637	17,873	17,838	18,072	17,941
Deferred	3,560	3,707	3,905	3,998	3,980	4,205	4,380	4,668	4,940	5,341
Safety										
Active	3,925	3,760	3,587	3,704	3,730	3,731	3,587	3,687	3,674	3,780
Deferred	321	387	403	408	402	408	409	424	430	462
Total	27,601	26,727	26,050	25,827	25,671	25,981	26,249	26,617	27,116	27,524

Source: OCERS' Pension Gold Information System and V3 Pension Administration System Solution

Schedule of Participating Employers - Pension Plan

2008 – 2017

Years Ended December 31	Total	Orange County	OCTA	Superior Court	Fire Authority	OC Sanitation District	City of San Juan Capistrano	TCA	All Other Sponsors
2008 Number of Covered Employees	23,720	17,798	2,022	1,812	1,121	615	93	93	166
Percentage to Total System	100%	75.03%	8.52%	7.64%	4.73%	2.59%	0.39%	0.39%	0.70%
2009 Number of Covered Employees	22,633	17,021	1,836	1,711	1,114	611	88	92	160
Percentage to Total System	100%	75.20%	8.11%	7.56%	4.92%	2.70%	0.39%	0.41%	0.71%
2010 Number of Covered Employees	21,742	16,486	1,639	1,635	1,064	594	87	79	158
Percentage to Total System	100%	75.83%	7.54%	7.52%	4.89%	2.73%	0.40%	0.36%	0.73%
2011 Number of Covered Employees	21,421	16,084	1,549	1,638	1,244	596	80	80	150
Percentage to Total System	100%	75.09%	7.23%	7.65%	5.81%	2.78%	0.37%	0.37%	0.70%
2012 Number of Covered Employees	21,289	16,118	1,509	1,569	1,195	596	80	74	148
Percentage to Total System	100%	75.70%	7.09%	7.37%	5.61%	2.80%	0.38%	0.35%	0.70%
2013 Number of Covered Employees	21,368	16,281	1,519	1,492	1,185	587	81	77	146
Percentage to Total System	100%	76.19%	7.11%	6.98%	5.55%	2.75%	0.38%	0.36%	0.68%
2014 Number of Covered Employees	21,460	16,453	1,454	1,460	1,213	594	80	65	141
Percentage to Total System	100%	76.67%	6.78%	6.80%	5.65%	2.77%	0.37%	0.30%	0.66%
2015 Number of Covered Employees	21,525	16,574	1,409	1,462	1,224	572	75	63	146
Percentage to Total System	100%	77.00%	6.55%	6.79%	5.69%	2.66%	0.35%	0.29%	0.68%
2016 Number of Covered Employees	21,746	16,756	1,372	1,486	1,263	578	80	68	143
Percentage to Total System	100%	77.05%	6.31%	6.83%	5.81%	2.66%	0.37%	0.31%	0.66%
2017 Number of Covered Employees	21,721	16,778	1,313	1,455	1,288	592	81	64	150
Percentage to Total System	100%	77.24%	6.04%	6.70%	5.93%	2.73%	0.37%	0.29%	0.69%

Source: OCERS' Pension Gold Information System and V3 Pension Administration System Solution

History of Actuarial Assumption Rates

For the Period January 1945 - December 2017

The table shown below is a comprehensive history of the change in interest rate assumption and the salary assumption rates corresponding to the Orange County Employees Retirement System since the inception of the System. These rates are adopted by the Retirement Board and used by the consulting actuary in the creation of the actuarial valuation of the System.

Specifically, the interest rate assumption estimates the rate at which the funds of the System's investment portfolio will realize earnings over many years into the future. The salary assumption rate estimates the relative increases in the salary of a member from the date of the valuation to the estimated date of separation of the member from active service.

Effective Date	Interest Rate	Salary Assumption Rate
1/1/1945	2.50%	0.00%
7/1/1962	3.50%	0.00%
12/31/1965	4.00%	0.00%
7/1/1969	4.50%	0.00%
6/30/1970	5.00%	0.00%
8/31/1973	5.75%	0.00%
7/1/1975	6.00%	0.00%
7/1/1981	7.25%	5.00%
7/1/1989	7.50%	5.50%
7/1/1991	8.00%	6.00%
7/1/1996	8.00%	3.50%
7/1/2000	8.00%	5.50%
7/1/2003	7.50%	4.50%
12/31/2004	7.75%	3.50%[1]
12/31/2007	7.75%	3.50%[2]
12/31/2011	7.75%	3.50%[3]
12/31/2012	7.25%	3.25%[4]
12/31/2014	7.25%	3.50%[4]
12/31/2017	7.00%	3.25%[4]

[1] Inflation per year plus merit and promotion increases ranging from 0.6% to 0.7%

[2] Inflation per year plus merit and promotion increases ranging from 1% to 10%

[3] Inflation per year plus 0.25% across-the-board real salary increases plus merit and promotion increases ranging from 1% to 14%

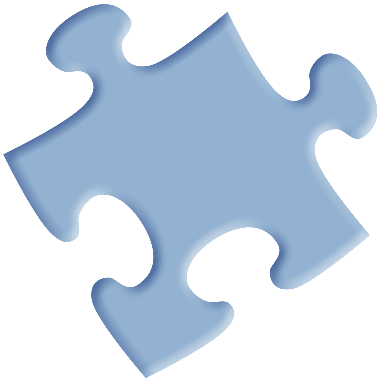
[4] Inflation per year plus 0.50% across-the-board real salary increase

Source: The Segal Company

ORANGE COUNTY

OCERS

EMPLOYEES RETIREMENT SYSTEM



Section VI

Glossary

Glossary of Terms

Accrual Basis

The recording of the financial effects on a government of transactions and other events and circumstances that have financial consequences for the government in the periods in which those transactions, events and circumstances occur, rather than only in the periods in which cash is received or paid by the government.

Accumulated Plan Benefits

Benefits attributable under the provisions of a pension plan to employees for services rendered to the benefit information date.

Actuarial Accrued Liability

The actuarial accrued liability, as determined by a particular cost method, equals the total present value of benefits that is attributable to past service credit.

Actuarial Assumptions

Assumptions used in the actuarial valuation process as to the occurrence of future events affecting pension costs, such as mortality, withdrawal, disablement and retirement; changes in compensation and national pension benefits; rates of investments earnings and asset appreciation or depreciation: procedures used to determine the actuarial value of assets; characteristics of future entrants for open group actuarial cost methods and other relevant items.

Actuarial Determined Contribution

A target or recommended contribution to a defined benefit pension plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

Actuarial Gain (Loss)

A measure of the difference between actuarial and expected experience based upon a set of actuarial assumptions. Examples include higher than expected salaries increases (loss) and a higher return on fund assets than anticipated (gain).

Actuarial Present Value

The discounted value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of actuarial assumptions.

Amortization

1. The portion of the cost of a limited-life or intangible asset charged as an expense during a particular period.

2. The reduction of debt by regular payments of principal and interest sufficient to retire the debt by maturity.

Comprehensive Annual Financial Report (CAFR)

The CAFR is the official annual report of a governmental entity. It includes the basic financial statements and their related notes prepared in conformity with GAAP. It also includes supporting schedules necessary to demonstrate compliance with finance-related legal and contractual provisions, required supplementary information, extensive introductory material and a detailed statistical section.

Cost-sharing Multiple-employer Defined Benefit Pension Plan (cost-sharing pension plan)

A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.

Glossary of Terms

(Continued)

Discount Rate

The single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the following:

1. The actuarial present value of benefit payments projected to be made in future periods in which (a) the amount of the pension plan's fiduciary net position is projected (under the requirements of GASB Statement No. 67) to be greater than the benefit payments that are projected to be made in that period and (b) pension plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on pension plan investments.

2. The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.

Entry Age Actuarial Cost Method

A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on the level basis over the earnings or services of the individual between entry age and assumed exit age(s).

Independent Auditor's Report

In the context of a financial audit, a statement by the auditor describing the scope of the audit and the auditing standards applied in the examination, and setting forth the auditor's opinion on the fairness of presentation of the basic financial statements in conformity with generally accepted accounting principles (GAAP).

Money-weighted Rate of Return

A method of calculating period-by-period returns on pension plan investments that adjusts for the changing amounts actually invested. For purposes of GASB Statement No. 67, money-weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense.

Net Pension Liability

The liability of employers and non-employer contributing entities to plan members for benefits provided through a defined benefit pension plan.

Normal Cost

The ongoing annual cost allocated to the system by a particular actuarial cost method for providing benefits (future cost). Normal cost payments are made during the working lifetime of the member.

Pension Contribution

The amount paid into a pension plan by an employer (and/or employee), pursuant to the terms of the plan, state law, actuarial calculations or some other basis for determinations.

Pension Trust Fund

A fund used to account for public employee retirement benefits. Pension trust funds use the accrual basis of accounting and have a capital maintenance focus.

Total Pension Liability

The portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service in conformity with the requirements of GASB Statement No. 67.

Unfunded Actuarial Accrued Liability (UAAL)

The excess of the actuarial accrued liability over the actuarial value of assets represents the unfunded actuarial accrued liability.

UAAL Amortization Payment

The UAAL amortization payment is the portion of pension contributions, which is designed to pay off (amortize) the UAAL in a systematic fashion. Equivalently, it is a series of periodic payments required to pay off a debt.

ORANGE COUNTY

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EMPLOYEES RETIREMENT SYSTEM

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