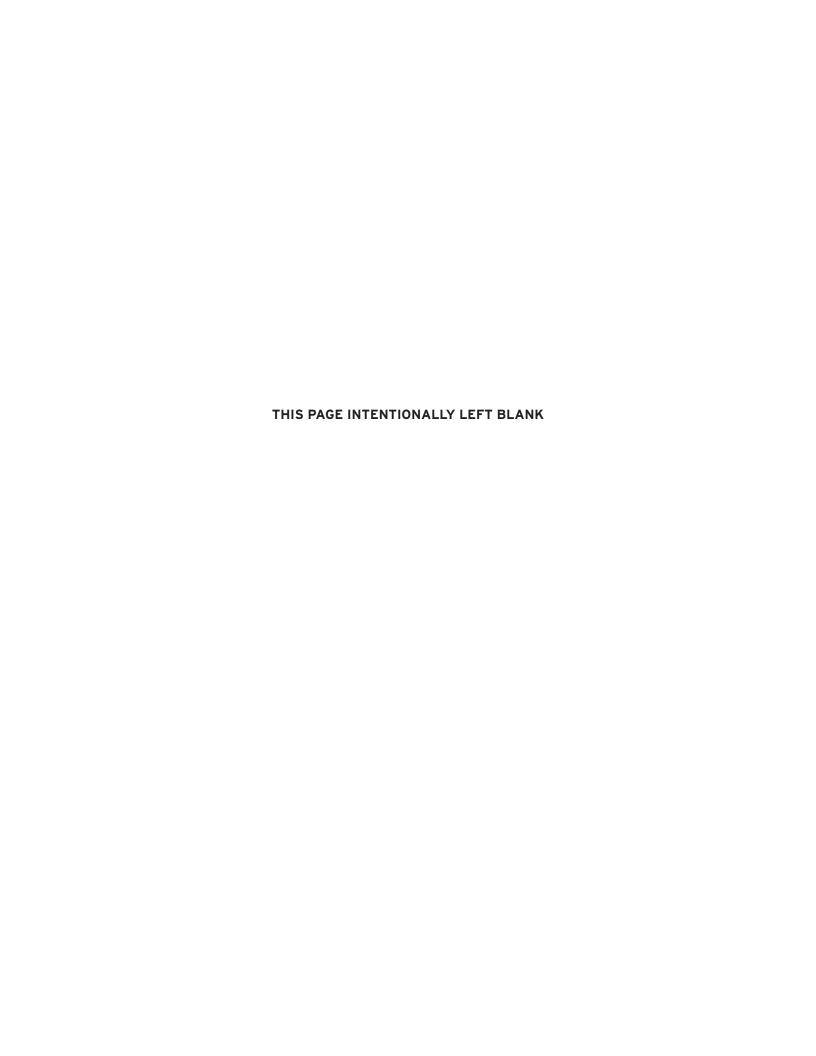


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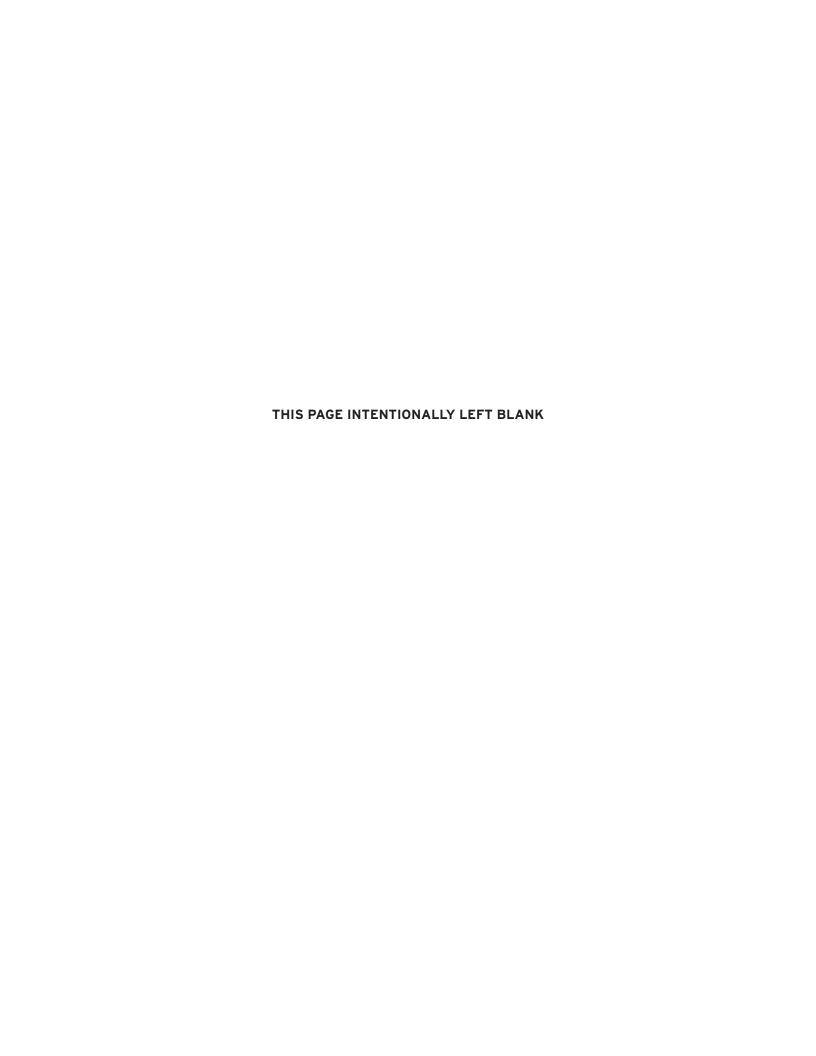
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# INTRODUCTION





TO THE TRUSTEES, MEMBERS AND BENEFICIARIES, PLAN SPONSOR AND PARTICIPATING EMPLOYERS OF THE SAN DIEGO COUNTY EMPLOYEES RETIREMENT ASSOCIATION:

I am pleased to present to you the Comprehensive Annual Financial Report (CAFR) of the San Diego County Employees Retirement Association (SDCERA) for the fiscal year ended June 30, 2016 (FY 2016).

### SDCERA BACKGROUND

SDCERA is a public retirement system established by the County of San Diego on July 1, 1939, pursuant to the County Employees Retirement Law of 1937. SDCERA administers retirement, disability, death, survivor and

healthcare benefits for more than 41,000 Members who are either active, retired or former employees of SDCERA's Plan Sponsor (the County of San Diego), or our four Participating Employers (the San Diego Local Agency Formation Commission, the San Dieguito River Park Joint Powers Authority, the San Diego County Office of Education and the Superior Court of California—County of San Diego).

The Board of Retirement (Board) is SDCERA's governing body. It has exclusive control and fiduciary responsibility for administering benefits and managing the investment of Trust Fund assets. The Board's nine Trustees include four Trustees appointed by the San Diego County Board of Supervisors, the San Diego County Treasurer-Tax Collector, and four Trustees elected by Members (two elected by active General Members, one elected by active Safety Members and one elected by Retired Members). Active Safety Members and Retired Members each elect an alternate Trustee.

### **INVESTMENTS**

SDCERA's FY 2016 net investment return was 0.45 percent. As of June 30, 2016, SDCERA's three-year net return was 5.38 percent, the five-year net return was 5.94 percent and the 10-year net return was 4.68 percent. These returns were below SDCERA's investment return assumption for each of these periods. Trust Fund assets totaled \$10.3 billion as of June 30, 2016.

In August 2015, following the Board's decision to reestablish SDCERA's internal position of Chief Investment Officer (CIO) and hiring Steve Sexauer as CIO, our investment team transitioned more than \$5 billion in assets from our prior portfolio strategist's portfolios into other SDCERA-managed portfolios without error and with low transaction costs. In November 2015, the Board adopted a new Investment Policy Statement, including a new asset allocation, that defines the Trust Fund's investment objectives and governing principles. The principles are powerful: transparency, accountability and responsibility. Two very tangible outcomes of FY 2016 investment activities are a simpler, less complex portfolio and significantly reduced investment management, consulting and staff costs that have reduced investment expenses by more than \$20 million in FY 2016. These savings will carry forward into future fiscal years.

More information about SDCERA's FY 2016 investment operations is included in the Investments section.

### **ACTUARIAL VALUATION AND REVIEW**

Segal Consulting, an independent actuary, prepared SDCERA's FY 2016 Actuarial Valuation and Review that summarizes the actuarial data used in the valuation and establishes the funding requirements for fiscal year 2017. SDCERA's Plan Sponsor and Participating Employers paid their actuarially determined contribution. Highlights of Segal's Valuation and Review and certification letter are included in the Actuarial section.

Since my arrival at SDCERA in 2015, the Board has reduced SDCERA's investment return assumption twice: in September 2015 (from 7.75 percent to 7.50 percent) and in June 2016 (from 7.50 percent to 7.25 percent). These reductions were prudent given the current interest rate environment and investment outlook, as Steve Sexauer discusses in his Chief Investment Officer's letter in the Investments section. The reductions are also significant given the California Constitution's admonition that a retirement board, among other duties, "minimiz[e] employer contributions." Of course, as the proverb states, "No good deed goes unpunished." Each reduction in the investment return assumption immediately increases the Unfunded Actuarial Accrued Liability (UAAL) and lowers the funded ratio. These two 25 basis point reductions in the investment return assumption were major contributors to an increase in the UAAL from \$2.5 billion to \$3.3 billion, and the drop in the funded ratio from 80.9 percent to 76.9 percent, from June 30, 2014 to June 30, 2016. The June 30, 2016 UAAL is the largest in SDCERA's experience, and the funded ratio is the lowest it has been over the past ten years.

A retirement plan's funded ratio receives significant attention. Generally, the higher the funded ratio is, the "healthier" the plan. However, it is important to keep in mind the limitations of referencing a funded ratio at one point in time. The American Academy of Actuaries published an Issue Brief in July 2012 that notes, "While the funded ratio may be a useful measure, understanding a pension plan's funding progress should not be reduced to a single measure or benchmark at a single point in time." The funded ratio "is most meaningful when viewed together with other relevant information" including a plan sponsor's revenue, assets or payroll, level of debt and cash flow. SDCERA's Plan Sponsor, the County of San Diego, is one of the most financially strong and economically vibrant counties in the country, as evidenced by its triple-A ratings from Moody's, Standard & Poor's and Fitch Ratings.

### FISCAL YEAR 2016 ACTION PLAN

In July 2015, SDCERA's senior management team agreed on an ambitious and comprehensive FY 2016 Action Plan. All of the Action Plan's goals were completed, and SDCERA is a stronger, more effective organization as a result. The following are among the Action Plan's highlights:

With the transition to an in-house investment program, the Investment team produces a new monthly Risk Return Report that provides the Board with a complete profile of Trust Fund assets, returns and risks. The Report relies on data from SDCERA's Custodian (BNY Mellon) and Investment General Consultant (Aon Hewitt Investment Consulting), thereby providing an independent, transparent and reliable review of the Trust Fund.

Elaine Reagan became SDCERA's first-ever in-house General Counsel and Chief Legal Officer in August 2015. Since her arrival, Elaine has hired Assistant Chief Legal Officer Mario Correa, Senior Paralegal Teresa Clanton and Executive Legal Assistant Ja'Mar Montgomery. SDCERA's in-house "law firm" has provided high quality legal work product, and the use of outside counsel has diminished significantly.

Financial integrity is at the core of SDCERA's operations, and the Finance team improved the content, readability and production of SDCERA's Actuarial Valuation and Review, Comprehensive Annual Financial Report, audited financial statements and annual budget.

Trustee Mark Oemcke, Chair of the Board's Audit, Finance and Budget Committee, remarked that, "[SDCERA's FY 2017 budget] results are extraordinary. There's an attention to cost, being smart about where the beneficiaries' money is being spent - because it is theirs - and the results are phenomenal, and the information is transparent." Total FY 2017 operating expense will be 15 percent lower than FY 2016's, including a 27 percent decrease in FY 2017's controllable administrative expense. Since July 2015, we have eliminated more than 25 positions, saving the Trust Fund more than \$2 million annually, with no adverse impact on operations, investments or Member service.

Patrick Murphy, SDCERA's internal auditor, prepared a formal self-assessment of SDCERA's audit program that was validated by a qualified external auditor. Both were firsts for SDCERA. Taken together, the selfassessment and validation constitute a peer review in accordance with standards established by the Institute of Internal Auditors and are fundamental steps in the maturation of the internal audit function.

In June 2016, after months of work by many, SDCERA received a Tax Determination Letter from the Internal Revenue Service.

SDCERA's new pension administration system, PROMiS ("Participants' Retirement Operations Management Information System"), was completed ahead of our "6.30.16" schedule. In addition to software functionality, PROMIS requires internal data integrity; during FY 2016, staff verified two million Member data records, resolved more than a quarter million variances and validated almost 300,000 individual records.

SDCERA's Information Technology Strategic Plan was updated, and many operational improvements were implemented, including a new security firewall leveraging the latest cyber threat identification and prevention capabilities; data center servers and user desktops were upgraded to optimize performance and security; new advanced encryption technology replaced existing encryption; and the Mobile Device Management system upgrade provided more secure and efficient remote access to emails.

Our FY 2016 group communications goal was to reach more Members more effectively and more efficiently than ever before, and we are. Emails are sent to active Members with information about pertinent retirement topics; informational messages are printed on retired Members' monthly earnings statements; content is regularly provided for inclusion in Member-related newsletters; we hosted our first-ever Annual Member Meeting, and retirement seminars and "Meet and Greet" Member meetings are held throughout the year.

A new first-floor Member Service Center, which includes the call center and the Member reception area, has refocused its efforts and workflow. Member Service Counselors now focus only on answering Members' calls and questions and not on other ancillary administrative tasks. As a result, call wait times and the abandoned call ratio have improved dramatically.

SDCERA is "A Great Place to Work" for many reasons, including the following FY 2016 improvements. The physical office environment improved significantly. Member photographs were added to the walls with an explanatory text accompanying them that reads, "SDCERA is in the 'life-touching' business. Our responsibility to our Members affects their lifetime financial security. We are committed to this responsibility. The Members depicted here remind us that this commitment doesn't end within these office walls. As we work to serve our Members, it is important that we never forget the real-life impact of our efforts."

A new Employee Recognition Program was instituted that focuses on significant employee accomplishments that make SDCERA a better organization. Recognition is based on the importance of the employee's contribution to the organization and is more frequent.

Recognizing that even talented people might not reach their potential if they are in the wrong spot, a key FY 2016 goal was to align more effectively staff talent with our business objectives and processes. We made many moves to better align resources with processes and increase organizational efficiency and effectiveness. As with our in-house investment program, SDCERA is doing more with less.

An on-boarding program was implemented to integrate new employees more effectively. Succession planning is critical for any organization and was a focus this year. Today, the leadership team is talented and fully staffed, and SDCERA is two-deep at every key supervisory position. We are committed to providing staff with the tools necessary to excel at their jobs. Leveraging SDCERA's own intellectual capital, we began a "Lunch and Learn" program for all employees. The SDCERA Book Club was established to broaden staff business acumen, discuss leadership skills and engage with colleagues from all areas of the organization. HR has improved monthly All-Staff meetings, adding guest speakers and expanded agenda topics. Monthly Managers' meetings build cohesion among managers and improve communication. Our employee-led "A-Team" was reconstituted and reimagined to think strategically about employee events and involvement.

Each of these activities and achievements has the same goal: to increase employees' intellectual capital and productivity in order to fulfill our constitutional duty to defray the expense of administering the system.

### FINANCIAL INTEGRITY

Financial Statements. Responsibility for the accuracy of the data in this CAFR, along with the completeness and fairness of the presentation of financial information, rests with SDCERA's management. To the best of our knowledge, the enclosed data is accurate in all material respects and is reported in a manner designed to present transparently SDCERA's operational results and Trust Fund financial position. Detailed information is provided in Management's Discussion and Analysis in the Financial section, and I encourage you to read it carefully. SDCERA's financial statements are prepared using the accrual basis of accounting. Contributions from our Plan Sponsor, Participating Employers and active Members are recognized as revenue when earned. Benefit payments are recorded when due and payable in accordance with the terms of the Plan. Other expenses are recorded when corresponding liabilities are incurred, regardless of when payment is due or made.

Internal Controls. SDCERA's management is responsible for the establishment and maintenance of internal controls designed to ensure that Trust Fund assets are protected from theft or misuse. Internal controls are designed to provide reasonable, but not absolute, assurance that these objectives are met. Reasonable assurance recognizes the cost of a control relative to the benefits likely to be derived and that these judgements by management are based on estimates.

Brown Armstrong Accountancy Corporation, a certified public accounting firm, has audited SDCERA's financial statements and related disclosures. Their independent financial audit provides reasonable assurance that SDCERA's financial statements are presented in conformity with accounting principles generally accepted in the United States, including the reporting guidelines set forth by the applicable standards issued by the Governmental Accounting Standards Board, and are free from material misstatement.

### ACHIEVEMENTS IN FINANCIAL REPORTING AND PLAN ADMINISTRATION

SDCERA'S CAFR for the fiscal year ended June 30, 2015 was awarded the Certificate of Achievement for Excellence in Financial Reporting from the Government Finance Officers Association. This award recognizes conformance with the highest standards for state and local government financial reporting. In addition, the Public Pension Coordinating Council honored SDCERA with its 2016 Public Pension Standards Award for Funding and Administration in recognition of meeting professional standards for plan funding and administration as set forth in the Public Pension Standards.

### **ACKNOWLEDGEMENTS**

In July 2016, the Board, pursuant to its policy, elected three new officers: Dianne Jacob replaced Skip Murphy as Chair, Mark Oemcke replaced David Myers as Vice Chair and Samantha Begovich replaced Dick Vortmann as Secretary. I want to express my personal appreciation to these and all Trustees for their leadership, advice and support; SDCERA's FY 2016 successes would not have been possible without them. I also want to thank SDCERA staff for their hard work and dedication to our Members. Working together, the Board and staff are administering a sound retirement plan.

Sincerely,

David B. Wescoe

Chief Executive Officer

December 15, 2016



# **Public Pension Coordinating Council**

## Public Pension Standards Award For Funding and Administration 2016

Presented to

# San Diego County Employees Retirement Association

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)



Government Finance Officers Association

# Certificate of Achievement for Excellence in Financial Reporting

Presented to

San Diego County

**Employees Retirement Association** 

California

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

June 30, 2015

Executive Director/CEO



E.F. "Skip" Murphy Chairman



**David Myers** Vice Chairman



Richard Vortmann Secretary



Kristina Maxwell



Mark Oemcke



Dianne Jacob



Dan McAllister



**Richard Tartre** 



Samantha Begovich

### **ALTERNATE TRUSTEES**



James Feeley



Tim Hancock

### CHAIRMAN

### E.F. "Skip" Murphy

Elected by SDCERA Retired members Present term expires June 30, 2017

### VICE CHAIRMAN

### **David Myers**

Elected by SDCERA Safety members Present term expires December 31, 2019

### **SECRETARY**

### **Richard Vortmann**

Appointed by County Board of Supervisors Present term expires June 30, 2017

### **TRUSTEE**

### Kristina Maxwell

Elected by SDCERA General members Term expired June 30, 2016

### TRUSTEE

### Mark Oemcke

Appointed by County Board of Supervisors Present term expires June 30, 2019

### **TRUSTEE**

### Dianne Jacob

Appointed by County Board of Supervisors Present term expires December 31, 2019

### **TRUSTEE**

### Dan McAllister

County Treasurer-Tax Collector Holds office during incumbency

### **TRUSTEE**

### **Richard Tartre**

Appointed by County Board of Supervisors Present term expires June 30, 2018

### **TRUSTEE**

### Samantha Begovich

Elected by SDCERA General members Present term expires June 30, 2017

### **ALTERNATE TRUSTEE**

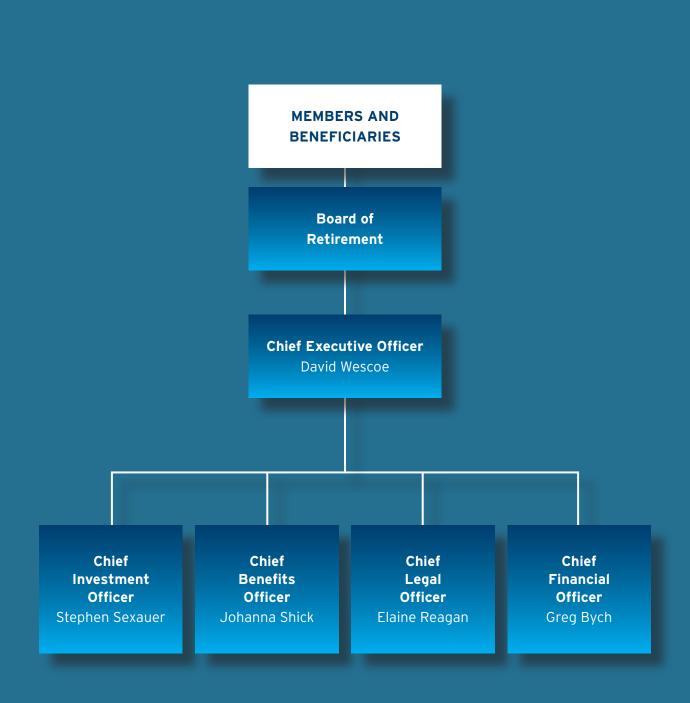
### James Feeley

Elected by SDCERA Retired members Present term expires June 30, 2017

### **ALTERNATE TRUSTEE**

### Tim Hancock

Elected by SDCERA Safety members Present term expires December 31, 2019



### **CONSULTANTS**

As of June 30, 2016

### **AUDITOR**

### **Brown Armstrong Accountancy Corporation** 4200 Truxtun Avenue, Suite 300

Bakersfield, CA 93309

### INVESTMENT CONSULTANTS

### Albourne America, LLC

50 Danbury Road Wilton, CT 06897

### Aon Hewitt Investment Consulting, Inc.

200 East Randolph Street Chicago, IL 60601

### The Townsend Group Institutional Real Estate

1500 West Third Street, Suite 410 Cleveland, OH 44113-1453

### **HEALTH CONSULTANT**

17901 Von Karman Avenue, Suite 1102 Irvine, CA 92614

### **ACTUARY**

### **Segal Consulting**

100 Montgomery Street, Suite 500 San Francisco, CA 94104-4308

### BANK CUSTODIAN

The Bank of New York Mellon Trust Company, NA

400 S. Hope Street Los Angeles, CA 90071

Note: A list of investment managers is on page 72 in the Investment section.

# FINANCIAL



## BROWN ARMSTRONG

Certified Public Accountants

### INDEPENDENT AUDITOR'S REPORT

To the Board of Retirement San Diego County Employees Retirement Association San Diego, California

### **Report on the Financial Statements**

We have audited the accompanying financial statements of San Diego County Employees Retirement Association (SDCERA), which comprise the statement of plan net position as of June 30, 2016, the related statement of changes in plan net position for the year then ended, and the related notes to the basic financial statements, which collectively comprise SDCERA'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 of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to SDCERA'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 SDCERA'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 basic financial statements referred to above present fairly, in all material respects, the plan net position of SDCERA as of June 30, 2016, and the changes in plan net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

### **Emphasis of Matter**

As discussed in Note 9 to the basic financial statements, the total pension liability of the participating employers as of June 30, 2016, was \$14,559.3 million. The fiduciary net position as a percentage of the total pension liability as of June 30, 2016, was 70.48%. The actuarial valuations are very sensitive to the underlying actuarial assumptions, including a discount rate of 7.25%, which represents the long-term expected rate of return. Our opinion is not modified with respect to this matter.

Additionally, as discussed in Note 3 to the basic financial statements, in 2016, SDCERA adopted Governmental Accounting Standard Board (GASB) Statement No. 72, Fair Value Measurement and Application. Note 2 to the basic financial statements disclosed that the basic financial statements include investments that are measured at fair value by using unobservable inputs. These investments are included in Level 3 of the three-tiered fair value hierarchy. Such investments totaled \$3,384.9 million (31% of total assets) at June 30, 2016. Also disclosed in Note 2 are the investments measured at Net Asset Value (NAV). Such investments totaled \$3,060.8 million (28% of total assets) at June 30, 2016. These investments include private equity, real estate, and hedge funds that are not listed on national exchanges or for which quoted market prices are not available. Where a publicly listed price is not available, the management of SDCERA uses alternative sources of information including audited financial statements, unaudited interim reports, independent appraisals, and similar evidence to determine the fair value of the investments. Our opinion is not modified with respect to these matters.

### Other Matters

### Required Supplemental Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the required supplemental information, as noted in the table of contents, be presented to supplement the basic financial statements. Such information, although not part of the basic financial statements, is required by the GASB, 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 supplemental 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 Supplemental Information

Our audit was conducted for the purpose of forming an opinion on these financial statements. The other supplemental information and the introduction, investments, actuarial, and statistical sections, as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The other supplemental information, as noted in the table of contents, 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 introduction, investments, actuarial, and statistical sections, as noted in the table of contents, 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 December 9, 2016, on our consideration of SDCERA's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with Government Auditing Standards in considering SDCERA's internal control over financial reporting and compliance.

### **Report on Summarized Comparative Information**

We have previously audited SDCERA's June 30, 2015, financial statements, and our report dated December 11, 2015, expressed an unmodified opinion on those audited financial statements. In our opinion, the summarized comparative information presented herein as of and for the fiscal year ended June 30, 2015, is consistent in all material respects, with the audited financial statements from which it has been derived.

> **BROWN ARMSTRONG ACCOUNTANCY CORPORATION**

Brown Armstrong Lorporation

Bakersfield, California December 9, 2016



### MANAGEMENT'S DISCUSSION AND ANALYSIS

I am pleased to present Management's Discussion and Analysis (MD&A), an overview and analysis of the financial activities of the San Diego County Employees Retirement Association (SDCERA, Association, Fund or Plan), for the fiscal year ended June 30, 2016 (FY 2016). The MD&A is intended to help the reader understand the purpose and meaning of the key components of SDCERA's financial statements. We believe the information presented here, in conjunction with the Basic Financial Statements and the Notes to the Basic Financial Statements, provides an accurate picture of the Association's overall financial status.

SDCERA's funding objective is to meet long-term benefit obligations through plan sponsor, participating employer and member contributions and earnings on invested assets. SDCERA has one Plan Sponsor (the County of San Diego) and four Participating Employers (the San Diego Local Agency Formation Commission, the San Dieguito River Valley Joint Powers Authority, the San Diego County Office of Education and the Superior Court of California – County of San Diego).

This Comprehensive Annual Financial Report (CAFR) is SDCERA's annual report to its constituents and provides financial and other information about the Fund. The CAFR is comprised of five sections: Introduction, Financial, Investments, Actuarial and Statistical.

The FY 2016 Financial section is comprised of the Independent Auditor's Report, MD&A, the Statement of Plan Net Position, Statement of Changes in Plan Net Position, Notes to the Basic Financial Statements, Required Supplementary Information and Other Supplemental Information. Here is an overview of these key components:

- The **Independent Auditor's Report**, prepared by Brown Armstrong Accountancy Corporation, renders an opinion on the fair presentation of SDCERA's financial statements.
- The MD&A provides an overview and analysis of FY 2016 financial activities. The MD&A should be read in conjunction with the CEO's Letter of Transmittal in the Introduction section and the financial statements that immediately follow the MD&A.
- The **Statement of Plan Net Position** is the financial statement that presents the major categories of assets and liabilities and their related values for the Fund. It presents the assets available for future payments of benefits to retirees and beneficiaries and the current liabilities owed as of June 30, 2016, with comparative totals as of June 30, 2015 (FY 2015).
- The **Statement of Changes in Plan Net Position** is the financial statement that provides an income statement presentation of annual additions to and deductions from the Fund during FY 2016, with comparative totals for FY 2015.
- The **Notes to the Basic Financial Statements** provide additional information essential to a full understanding of the data presented in the audited financial statements. This section provides a quantitative and qualitative basis for assessing SDCERA's financial condition.
- The Required Supplementary Information provides information on the sources of changes in the Net Pension Liability for the Plan Sponsor and each Participating Employer. The statement also provides information about the components of the Net Pension Liability and related ratios, including the Plan's fiduciary net position as a percentage of the Total Pension Liability, and the Net Pension Liability as a percentage of covered employee payrolls. The Required Supplementary Information also presents a Schedule of Investment Returns and a Schedule of Plan Sponsor Contributions.

• The **Other Supplemental Information** includes a Schedule of Investment Expenses, a Schedule of Administrative Expenses, and a Schedule of Payments to Consultants by Type of Service.

These financial statements and the required disclosures are in compliance with the Generally Accepted Accounting Principles and reporting guidelines as set forth by the Governmental Accounting Standards Board (GASB), utilizing the accrual basis of accounting.

### FINANCIAL HIGHLIGHTS

- The Plan Net Position, which represents funds restricted for current and future benefits, was \$10.3 billion at the end of FY 2016, a decrease of \$67.8 million from FY 2015.
- Total additions to Plan Net Position were \$593.6 million, primarily from investment gains of \$63.6 million, employer contributions of \$425.3 million and member contributions of \$104.6 million. Year-over-year, total additions declined by \$183.5 million, or -23.6 percent, primarily because of lower investment returns. The net investment return for FY 2016 was 0.45 percent.
- Total deductions from Plan Net Position were \$661.4 million, an increase of \$35.8 million, or 5.7 percent, over the prior year. Retirement benefits increased \$34.9 million because of a net increase of 548 in the number of retired members and a 2.0 percent increase in the average monthly benefit payment.
- Based upon the recommendation of its actuary, Segal Consulting (Segal), the Board voted in June 2016 to reduce the Trust Fund's net investment return assumption from 7.50 percent to 7.25 percent. Segal's recommendations were part of a recurring three-year review of economic and demographic assumptions. The review utilized the census data for the period July 1, 2012 to June 30, 2015 and provided proposed actuarial assumptions to be used effective with the June 30, 2016 valuation. The June 2016 reduction in the Plan's investment return assumption to 7.25 percent contributed to an increase in the Plan's UAAL from \$2.5 billion to \$3.3 billion. It also increases employer and member contributions.
- While the percentage of employer contributions increased in FY 2016, the total dollar amount of those contributions decreased due to the expiration of labor agreements containing employer-offset provisions. Member contributions have increased as a result.
- The funding objective of a retirement system is to meet its long-term benefit obligations through
  contributions and investment income. Segal reported that the Plan's funded status (the ratio of the
  actuarial value of assets to actuarial liabilities) was 76.9 percent at June 30, 2016. In addition, in
  accordance with the GASB Statement No. 67 reporting requirements, the Plan's fiduciary net position
  as a percentage of SDCERA's employer's Total Pension Liability was 70.48 percent.
- For FY 2016, the UAAL increased by \$773 million compared to FY 2015's UAAL of \$2.5 billion. The
  Board's adoption of more conservative actuarial assumptions, including the investment rate of return
  and mortality factors, increased the actuarial liability by more than \$771 million, offsetting a \$187
  million reduction in liabilities from other annual experience activities. However, the adoption of these
  more conservative actuarial assumptions will strengthen the Plan over the long term.
- FY 2016 saw a significant reduction in SDCERA's investment expenses. The reduction is attributed to two factors: (1) Board-approved changes that implemented a simpler, less complex investment structure, including the implementation of an in-house CIO investment model, a new Investment Policy Statement and asset allocation; and (2) lower incentive fee payments to private equity managers due to their investment performance. Total Investment Expenses in FY 2016 were \$73.8 million, a reduction of \$38.4 million, or 34.2 percent, from FY 2015 expenses of \$112.2 million.
- SDCERA's FY 2016 net investment return was 0.45 percent. While investment performance exceeded the benchmark over the one, three and five-year periods, it was below the investment return assumption for the one, three, five and 10-year periods.

- As of June 30, 2016, the date of the most recent biennial actuarial valuation, the Other Postemployment Benefits (OPEB) Plan had assets of \$7.8 million, Actuarial Liabilities of \$159.4 million and an Unfunded Actuarial Accrued Liability (UAAL) of \$151.6 million, for a funded ratio of 4.9 percent. This plan is closed. For FY 2016, the number of participants declined by 485, and employer contributions exceeded benefits paid by \$1.3 million.
- Included in the FY 2016 CAFR is compliance with the new GASB Statement No. 72, Fair Value
  Measurement and Application. This Statement addresses accounting and financial reporting issues
  related to fair value measurements and provides guidance for determining a fair value measurement.
  It enhances financial reporting by using a consistent definition of fair value and accepted valuation
  techniques.

### FINANCIAL ANALYSIS

As of June 30, 2016, SDCERA's Plan Net Position was \$10.3 billion, a decrease of \$67.8 million, or 0.7 percent from the prior year. The slight decrease in net position is attributed to benefit payments for the year exceeding contributions plus investment income. The \$10.3 billion in Net Position Restricted for Benefits is comprised of total assets of \$10.9 billion exceeding total liabilities of \$0.6 billion. For FY 2016, SDCERA's portfolio investment performance gained 0.45 percent (net of investment expenses) while retiree benefits and other expenses experienced only moderate increases.

For FY 2016, the Fund's net position decreased by \$67.8 million, attributed to \$63.6 million in net investment income plus \$530 million in employer and member contributions offset by \$661.4 million in benefit payments and administrative expenses.

An overview of FY 2016 results along with comparative totals for FY 2015 is presented below.

TABLE 1: NET POSITION
As of June 30, 2016 and 2015
(dollars in thousands)

	2016	2015	Increase/ (Decrease)	% Change
Cash, cash equivalents and collateral cash	\$512,589	\$4,743,035	\$(4,230,446)	(89.2%)
Securities lending cash collateral	54,236	84,964	(30,728)	(36.2%)
Receivables	519,973	33,799	486,174	1,438.4%
Investments	9,806,634	5,586,541	4,220,093	75.5%
Property, plant & equipment	11,029	12,479	(1,450)	(11.6%)
Total assets	\$10,904,461	\$10,460,818	\$443,643	4.2%
Collateral payable for Securities lending	54,297	85,129	(30,832)	(36.2%)
Investments purchased	558,257	12,224	546,033	4,466.9%
Other	22,849	26,565	(3,716)	(14.0%)
Total liabilities	\$635,403	\$123,918	\$511,485	412.8%
Plan Net Position at June 30	\$10,269,058	\$10,336,900	\$(67,842)	(0.7%)

The significant decrease in the Cash, Cash Equivalents and Collateral Cash positions, together with the corresponding increase in the Investments and Receivables balances year-over-year, is attributed to changes in assets held in the investment portfolio.

The new Investment Policy Statement and asset allocation model do not permit the Fund to be leveraged at the total Fund level, which eliminated the use of leverage at the total Fund portfolio level and the need to maintain a large collateral cash balance.

The bar graph below illustrates the Ending Net Position for the last ten years as of June 30:

### **SDCERA NET POSITION**

For pension and OPEB benefits June 30, 2007-2016 (dollars in billions)

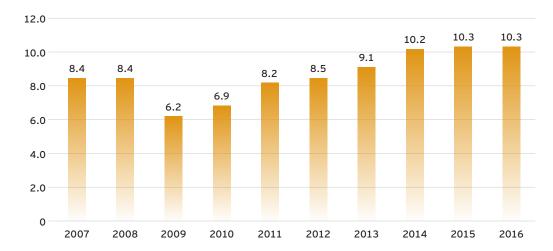


Table 2 reflects the Changes in Plan Net Position that occurred in FY 2016 due to current year contributions, investment income and benefit and administrative expenses:

**TABLE 2: CHANGES IN PLAN NET POSITION** 

For the years ended June 30, 2016 and 2015 (dollars in thousands)

		2016		2015		ncrease/	% Change
Additions		2016		2015	(L	ecrease)	% Change
Employer pension contributions	\$	405,586	\$	414,771	\$	(9,185)	(2.2%)
Employer OPEB contributions		19,719		21,111		(1,392)	(6.6%)
Member pension contributions		104,636		98,590		6,046	6.1%
Net investment income		62,999		242,100		(179,101)	(74.0%)
Net securities lending income		631		538		93	17.2%
Total additions	\$	593,571	\$	777,110	\$(	183,539)	(23.6%)
Deductions							
Retirement benefits		625,470		589,684		35,786	6.1%
Health benefits		18,443		19,346		(903)	(4.7%)
Refund of contributions		3,625		2,575		1,050	40.7%
Administrative expenses		13,875		14,043		(168)	(1.2%)
Total deductions	\$	661,413	\$	625,648	\$	35,765	5.7%
Net increase (decrease) in net position	\$	(67,842)	\$	151,462	\$(	219,304)	(144.8%)
Plan Net Position at beginning of year	1	0,336,900	1	0,185,438			
Plan Net Position at end of year	\$1	0,269,058	\$1	0,336,900			

### **ADDITIONS TO PLAN NET POSITION**

The primary sources financing the benefits SDCERA provides to its members are accumulated income on investments and collection of employer and member contributions. These income sources (Additions to Net Position) total \$593.6 million for FY 2016, a reduction of \$183.5 million over the prior year.

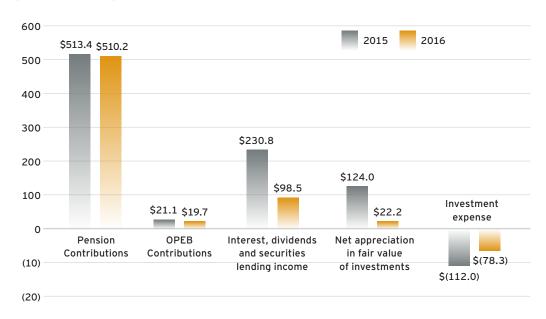
- Employer and member contributions were \$530 million in FY 2016, a decrease of \$4.5 million over the prior year. The average employer contribution rate in effect for FY 2016 was 36.5 percent, compared to 34.7 percent the prior year. Average member contribution rates increased as well, to 11.5 percent in FY 2016 from 11.3 percent in FY 2015.
- Employer Other Postemployment Benefits (OPEB) Plan contributions were \$19.7 million in FY 2016, \$1.4 million lower than the prior year. Relative to the prior valuation conducted on June 30, 2014, the UAAL decreased by \$12.8 million, to \$151.6 million, the result of contributions to the UAAL during the past two years exceeding benefits paid, and the Actuarial Accrued Liability increasing to 4.9 percent from 2.8 percent. The OPEB Plan balance is \$7.8 million at June 30, 2016.

• Net Investment Income totaled \$63.6 million in FY 2016, a decrease of \$179.0 million over the prior year. FY 2016's investment return of 0.45 percent (net of fees) was below the actuarial assumed investment earnings rate of 7.50 percent. Investment income was primarily driven by net market appreciation in the equity portfolio of \$38.9 million and stock dividends plus income from real estate and private equity holdings totaling \$103.9 million, offset by losses of \$6.0 million in the fixed income portfolio and \$73.8 million in investment expenses.

The chart below compares the Net Plan Additions by category for FY 2016 and FY 2015.

### **SDCERA NET ADDITIONS**

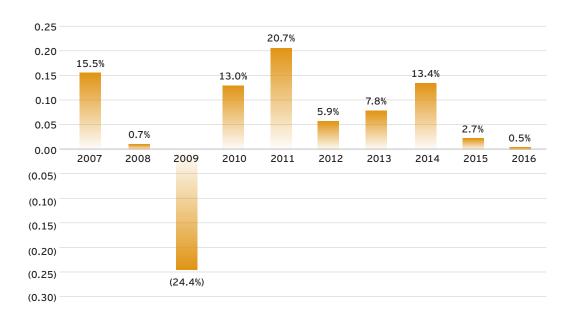
For the fiscal years ended June 30, 2015 and 2016 (dollars in millions)



The chart below reports the one-year annual investment return performance for the last ten fiscal years.

### **SDCERA ANNUAL INVESTMENT RETURNS**

For the last ten years ended June 30

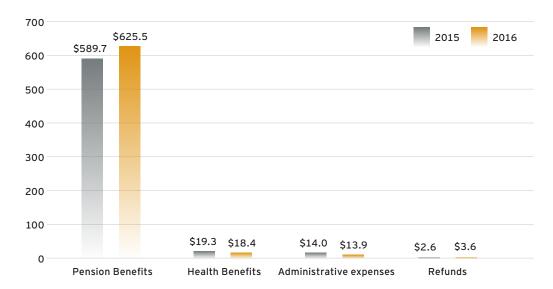


### **DEDUCTIONS FROM PLAN NET POSITION**

SDCERA's assets are primarily used to pay pension, disability, health and survivor benefits, to refund terminating members' contributions and to pay for the administrative costs of the Plan. Deductions from Plan Net Position for FY 2016 totaled \$661.4 million, of which \$643.9 million (or 97.3 percent) was paid for retirement and healthcare benefits. This represented a 5.7 percent increase over the FY 2015 deductions total of \$625.6 million. The increase in benefits paid is the result of FY 2016 member retirements and annual cost of living increases. The chart below compares Plan deductions by category for FY 2016 and FY 2015.

### **SDCERA DEDUCTIONS**

For the fiscal year ended June 30, 2015 and 2016 (dollars in millions)



### **PLAN ADMINISTRATION**

### SDCERA MEMBERSHIP

The table below provides comparative SDCERA membership data at June 30 for the past two years. Total membership at June 30, 2016 was 40,915, an increase of 799 members, or 2.0 percent, compared to June 30, 2015.

### **SDCERA MEMBERSHIP**

As of June 30, 2016 and 2015

Category	2016	2015	Change
Active Members	17,768	17,656	112
Retired Members	17,734	17,186	548
Terminated Vested (Deferred)	5,413	5,274	139
Total Membership	40,915	40,116	799

### **ADMINISTRATIVE EXPENSES**

The County Employees Retirement Law of 1937 (CERL) Section 31580.2 identifies Administrative Expense as the "entire expense of administration of system" and states that this expense "may be no greater than twenty-one hundredths of one percent of the accrued actuarial liability of the system." With some exclusions, administrative expenses are limited by state law to 0.21 percent of the Actuarially Accrued Liability (AAL) for the Plan. SDCERA's actual FY 2016 Administrative Expense was \$13.9 million, or 11 basis points of the AAL.

The table below compares the actual administrative expenses for FY 2016 and FY 2015 to their respective annual limits. The AAL was used to calculate the statutory budget amount. SDCERA's expenditures are well below the limit imposed by CERL for both years. See Schedule VII in the Other Supplemental Information section for additional details about Administrative Expenses.

### **COMPLIANCE WITH STATUTORY LIMITATION ADMINISTRATIVE EXPENSES**

For the years ended June 30, 2016 and 2015 (dollars in thousands)

2016	2015
\$13,875	\$14,043
\$13,080,080	\$12,141,149
0.11%	0.12%
0.21%	0.21%
	\$13,875 \$13,080,080 0.11%

### **ACTUARIAL VALUATIONS**

SDCERA's actuary, Segal Consulting, prepared two actuarial valuations for FY 2016: the Actuarial Valuation and Review report (AVR) and the GASB No. 67 Actuarial Valuation report (GASB 67 AVR).

The AVR was performed to determine whether the assets and contributions to the Plan are sufficient to provide the prescribed benefits. The AVR is also the basis for developing the employer and member contribution rates for the following year. At June 30, 2016, the AAL was \$14.349 billion and the Valuation Value of Assets (VVA) was \$11.030 billion, leaving a UAAL of \$3.318 billion. The funded ratio for the Plan is 76.9 percent on the VVA basis.

Commencing in FY 2014, the GASB 67 AVR is prepared to comply with the requirements of GASB Statement No. 67 that defines rules for reporting pension liability and expense for financial reporting purposes. The FY 2016 GASB 67 AVR valuation determined that the employer's Total Pension Liability was \$14.559 billion compared to a fiduciary plan net position of \$10.261 billion, resulting in the employers' Net Pension Liability of \$4.297 billion. The Plan's Fiduciary Net Position as a percentage of the Total Pension Liability for June 30, 2016 is 70.48 percent.

In September 2015, the Board adopted a decrease in the investment return assumption from 7.75 percent to 7.50 percent, effective for the FY 2015 actuarial valuation. In June 2016, the Board adopted another decrease in the Trust Fund's net investment return assumption, from 7.50 percent to 7.25 percent. This most recent action was part of a recurring three-year review of economic and demographic assumptions

affecting the Plan. The review utilizes the census data for the period July 1, 2012 to June 30, 2015 and provides proposed actuarial assumptions to be used effective with the June 30, 2016 valuation. Each decrease in the investment return assumption results in an increase in the UAAL.

### FAIR VALUE, RATES OF RETURN, FUNDED RATIO, AND FIDUCIARY NET POSITION AS A PERCENT OF TOTAL PENSION LIABILITY

The table below provides a four-year history of investment and actuarial returns and the actuarial funded ratio. Additional information, which provides 10 years of information, can be found in the Investment and Actuarial sections. Investment returns have been positive during the past five years.

Net investment returns for the Plan were 0.45 percent in FY 2016 and 2.68 percent in FY 2015. The Valuation Value of Assets (VVA) basis smooths investment gains and losses over five years and other actuarial assumptions over a varying period of years. The significant investment losses from the 2009 economic recession have now been factored out of the VVA rate of investment return.

This year, the Plan's funded ratio on the VVA basis declined to 76.9 percent. On a Market Value of Assets basis for asset valuations, the Fiduciary Net Position as a Percent of Total Pension Liability declined to 70.5 percent from 78.6 percent, due primarily to the adoption of more conservative actuarial assumptions and investment returns lower than projected in FY 2016. Additional information about funding progress in the Plan can be found in the Actuarial section.

### FAIR VALUE, RATES OF RETURN, FUNDED RATIO, AND FIDUCIARY NET POSITION AS A PERCENT OF TOTAL PENSION LIABILITY

For the last five fiscal years ended June 30, (dollars in thousands)

Fiscal Year Ended	Total Investment Portfolio at Fair Value*	Annual Investment Return (net of fees)	Annual Return on Valuation Value of Assets	Actuarial Assumed Rate of Return	Funded Ratio on Valuation Value of Assets	Fiduciary Net Position as a Percent of Total Pension Liability
2012	\$ 8,515,439	5.9%	1.72%	8.00%	78.7%	N/A**
2013	9,060,194	7.8%	7.77%	7.75%	79.0%	76.18%
2014	10,180,695	13.4%	7.77%	7.75%	80.9%	82.65%
2015	10,330,330	2.7%	7.91%	7.50%	80.5%	78.63%
2016	10,261,268	0.5%	5.70%	7.25%	76.9%	70.48%

<sup>\*</sup> Excludes assets for OPEB healthcare account.

### INTEREST CREDITS FOR RESERVE ACCOUNTS

SDCERA credits interest semiannually, on December 31 and June 30, to all member accounts that have been on deposit six months prior to such dates. Depending upon reserve balances and current year earnings, an interest crediting rate is calculated. In accordance with the Board's policy, this rate cannot exceed one-half of the assumed rate of return. The interest credited on December 31, 2015 was 3.06 percent and 2.55 percent on June 30, 2016.

<sup>\*\*</sup> N/A indicates there is no data for that fiscal year.

### OTHER POSTEMPLOYMENT BENEFITS (OPEB)

SDCERA administers a healthcare program for retirees, negotiating rates for numerous healthcare plans, collecting premiums from members and paying the vendors. Tier I and II retirees may be eligible to receive a healthcare allowance based on years of service. The OPEB Plan is funded by the employer to pay annual benefits. For investment purposes, assets of the Plan are commingled with pension assets and investment earnings are allocated to the OPEB Plan based on its percentage of total assets.

An actuarial valuation is performed for the OPEB Plan on a biennial basis, with the most recent valuation performed as of June 30, 2016. That valuation reported plan assets of \$7.8 million, an actuarially accrued liability of \$159.4 million, and a funded ratio of 4.9 percent. The OPEB Plan is funded annually by SDCERA's employers on a actuarially determined basis. The next scheduled OPEB valuation will be performed as of June 30, 2017 to comply with new GASB 74 and 75 reporting requirements.

The healthcare program began FY 2016 with a balance of \$6.6 million, received employer contributions of \$19.7 million, paid out \$18.4 million in healthcare benefits, and received \$48 thousand in investment earnings. The OPEB Plan ended the year with a balance of \$7.8 million at June 30, 2016.

### REQUESTS FOR FINANCIAL INFORMATION

Please address any questions about this Financial section or requests for additional financial information to Greg Bych, Chief Financial Officer, SDCERA, 2275 Rio Bonito Way, San Diego, CA 92108.

### STATEMENT OF PLAN NET POSITION

As of June 30, 2016

(with summarized comparative amounts as of June 30, 2015)

	June 30, 2016			June 30, 2015
	Pension Plan	Health Care	Total Fund	Total Fund
Assets				
Cash and short-term investments				
Cash in County pool	\$ 618,924	\$ 470	\$ 619,394	\$ 613,800
Cash and cash equivalents with fiscal agents	203,206,703	154,236	203,360,939	177,417,089
Collateral cash	308,374,320	234,059	308,608,379	4,565,004,184
Total cash and short-term investments	512,199,947	388,765	512,588,712	4,743,035,073
Securities lending cash collateral	54,195,232	41,135	54,236,367	84,964,035
Receivables				
Contributions	9,289,121	7,051	9,296,172	5,219,643
Accrued interest and dividends	16,461,073	12,494	16,473,567	17,302,140
Settlement of investments sold	493,827,963	374,820	494,202,783	11,277,652
Total receivables	519,578,157	394,365	519,972,522	33,799,435
Investments at fair value				
Domestic equity securities	2,440,059,765	1,852,029	2,441,911,794	391,552,873
International equity securities	291,205,489	221,028	291,426,517	337,678,647
Total equity securities	2,731,265,254	2,073,057	2,733,338,311	729,231,520
United States government obligations	517,764,361	392,988	518,157,349	158,037,517
Domestic bonds	3,089,856,647	2,345,232	3,092,201,879	750,636,484
International bonds	401,758,846	304,939	402,063,785	448,979,001
Total fixed income securities	4,009,379,854	3,043,159	4,012,423,013	1,357,653,002
Cash and securities for futures	132,704,608	100,724	132,805,332	592,708,410
Cash and securities for swaps	-	-	0	14,546,324
Opportunistic	127,055,181	96,436	127,151,617	114,337,579
Hedge funds	199,052,867	151,083	199,203,950	245,647,529
Relative value	334,970,677	254,246	335,224,923	321,811,264
Private equity	642,029,602	487,307	642,516,909	588,934,480
Real estate	974,256,574	739,470	974,996,044	981,936,542
Infrastructure	240,470,377	182,519	240,652,896	224,846,646
Natural resources	408,011,251	309,685	408,320,936	414,887,285
Total investments	9,799,196,245	7,437,686	9,806,633,931	5,586,540,581
Capital assets, net	11,020,562	8,365	11,028,927	12,478,865
Total assets	10,896,190,143	8,270,316	10,904,460,459	10,460,817,989
Liabilities				
Collateral payable for securities lending	54,255,734	41,181	54,296,915	85,128,945
Settlement of investments purchased	557,833,351	423,401	558,256,752	12,223,949
Professional services	7,988,485	6,063	7,994,548	15,290,866
Death benefits	760,193	_	760,193	737,857
Retirement benefits	404,763	-	404,763	373,115
Refunds to members	554,329	-	554,329	503,902
Cash in transit	98,391	75	98,466	207,160
Other	13,026,976	9,887	13,036,863	9,452,412
Total liabilities	634,922,222	480,607	635,402,829	123,918,206
Net postion restricted for pension and healthcare				\$ 10,336,899,783

The Notes to the Basic Financial Statements are an integral part of this statement.

### STATEMENT OF CHANGES IN PLAN NET POSITION

For the year ended June 30, 2016

(with summarized comparative amounts for June 30, 2015)

	June 30, 2016			June 30, 2015
	Pension	Health	Total	Total
Additions to play not position	Plan	Care	Fund	Fund
Additions to plan net position  Contributions				
Employer contributions	405,586,120	\$ 19,719,477	\$ 425,305,597	¢42E 001 067
		\$ 19,719,477		\$435,881,967
Plan member contributions	104,636,306	10.710.477	104,636,306	98,590,114
Total contributions	510,222,426	19,719,477	529,941,903	534,472,081
Investment income				
Net appreciation/(depreciation) in fair value of investments				
Stocks	(85,278,427)	(64,740)	(85,343,167)	(90,969,833
Bonds	(39,173,657)	(29,739)	(39,203,396)	(110,630,220
Foreign currency	(30,043,651)	(22,808)	(30,066,459)	3,685,268
Real estate & private equity	154,437,893	117,242	154,555,135	151,074,140
Natural resources	(22,704,715)	(17,236)	(22,721,951)	664,869
Opportunistic	(29,998,211)	(22,773)	(30,020,984)	27,326,176
Relative value	14,528,512	11,029	14,539,541	26,504,005
Multi-strategy fund	(2,850,834)	(2,164)	(2,852,998)	1,980,240
Infrastructure	19,115,007	14,511	19,129,518	927,475
Swaps	18,094,138	13,736	18,107,874	(56,546,55
Futures	42,735,227	32,443	42,767,670	170,010,894
Total net appreciation in fair value of investments	38,861,282	29,501	38,890,783	124,026,463
Interest income				
Bonds	(8,611,166)	(6,537)	(8,617,703)	40,189,664
Cash	2,623,091	1,991	2,625,082	45,601,445
Total interest income	(5,988,075)	(4,546)	(5,992,621)	85,791,109
Other	(0)100000	V :/ 2 : 5 /	(	22/17//
Dividends on stock investments	42,397,795	32,187	42,429,982	70,453,336
Real estate equity investment income	44,904,218	34,089	44,938,307	65,779,219
Private equity investment income	12,861,320	9,764	12,871,084	12,832,386
Natural resources investment income/(loss)	3,665,085	2,782	3,667,867	(4,555,375
Other income	30	0	30	1
Total other	103,828,448	78,822	103,907,270	144,509,577
Less: investment expenses	(73,750,762)	(55,988)	(73,806,750)	(112,227,543
Net investment income, other than securities lending	62,950,893	47,789	62,998,682	242,099,606
Securities lending appreciation/(depreciation)	104,283	79	104,362	77,369
Securities lending income	207,198	157	207,355	127,858
Securities lending meome  Securities lending rebates and bank charges	318,614	242	318,856	332,828
Net securities lending	630,095	478	630,573	538,055
Net investment income	63,580,988	48,267	63,629,255	242,637,661
Total additions to plan net position	573,803,414	19,767,744	593,571,158	777,109,742
Deductions from plan net position	513,003,414	19,101,144	393,371,136	777,109,142
Benefits				
Retirement benefits	623,841,232	-	623,841,232	588,468,688
Death benefits	1,629,046	-	1,629,046	1,215,003
Health benefits	-	18,443,230	18,443,230	19,346,24
Total benefits	625,470,278	18,443,230	643,913,508	609,029,932
Member refunds	3,624,725	-	3,624,725	2,575,454
Healthcare administrative expenses	-	-	-	(
Administrative expenses	13,770,116	104,962	13,875,078	14,042,67
Total deductions from plan net position	642,865,119	18,548,192	661,413,311	625,648,057
Increase/(decrease) in net position for pension and health care benefits	(69,061,705)	1,219,552	(67,842,153)	151,461,685
Net position restricted for pension and healthcare benefits				
Beginning of year	10,330,329,626	6,570,157	10,336,899,783	10,185,438,098
End of year	\$10,261,267,921	\$7,789,709	\$10,269,057,630	\$10,336,899,783

The Notes to the Basic Financial Statements are an integral part of this statement.

### NOTES TO THE BASIC FINANCIAL STATEMENTS

### 1. DESCRIPTION OF PLANS

The San Diego County Employees Retirement Association (SDCERA) is a public employee retirement system established by the County of San Diego (County) on July 1, 1939, and is administered by a Board of Retirement (Board) to provide retirement, disability, health, death and survivor benefits for its employees under the County Employees Retirement Law of 1937 (CERL). SDCERA administers a cost-sharing multiple-employer defined benefit pension plan and healthcare plan for the County and four Participating Employers located in San Diego County.

All employees of the County and other Participating Employers working in a permanent position for at least 20 hours each week are members of SDCERA. Membership begins with the first biweekly payroll period in the month following employment. Members are vested after accruing five years of service credit.

### **MEMBERSHIP**

SDCERA membership consists of retired members or their beneficiaries, active members, terminated members eligible for benefits but not yet receiving them (deferred-vested members) and terminated nonvested (deferred-nonvested) members. The SDCERA Membership Detail by Plan table on page 28 provides the number of members in each category as of June 30, 2016.

There are two types of membership:

SAFETY MEMBERS. Permanent or interim employees engaged in the performance of active law enforcement are considered Safety members and are not covered by Social Security. Court service officers and probation officers were added to Safety membership in 1998 and 1999, respectively.

GENERAL MEMBERS. All eligible employees not classified as Safety members, hired on or after January 1, 1958, are considered General members and are covered by Social Security.

### SDCERA MEMBERSHIP DETAIL BY PLAN

As of June 30, 2016

	General	Safety	Total
Active members			
General, Tier I	25	_	25
General, Tier A	9,004	_	9,004
General, Tier B	1,620	_	1,620
General, Tier C	3,558	_	3,558
Safety, Tier A	-	2,416	2,416
Safety, Tier B	-	486	486
Safety, Tier C	_	659	659
Total active members	14,207	3,561	17,768
Deferred (terminated) members			
General, Tier I	1,418	_	1,418
General, Tier A	2,424	_	2,424
General, Tier B	410	_	410
General, Tier C	545	_	545
Safety, Tier A	_	507	507
Safety, Tier B	_	58	58
Safety, Tier C	-	51	51
Total deferred (terminated) members	4,797	616	5,413
Retired members			
General, Tier I	4,998	_	4,998
General, Tier II	-	_	_
General, Tier A *	9,793	_	9,793
General, Tier B	13	_	13
General, Tier C	1	_	1
Safety, Tier A **	-	2,926	2,926
Safety, Tier B	-	3	3
Safety, Tier C	-	_	_
Total retired members	14,805	2,929	17,734
Total Membership	33,809	7,106	40,915

<sup>\*</sup> Includes members from General Tier II and General Tier A

### TIER STRUCTURE

General and Safety members who entered the retirement system prior to October 1, 1978, are Tier I members. On August 15, 1978, the County Board of Supervisors established a second tier (Tier II) of retirement benefits for employees entering the retirement system on or after October 1, 1978.

On March 8, 2002, the County Board of Supervisors eliminated Tier II for General and Safety members and established Tier A for active General members and all non-retired Safety members. All active General members were converted to Tier A unless they elected to opt out during the one-time opt-out period that ended March 7, 2002. When Tier II was eliminated, all deferred General Tier II members and active members who elected to opt out of Tier A were converted to Tier I. Both Tier I and Tier II are closed to new entrants.

<sup>\*\*</sup> Includes members from Safety Tier I, Safety Tier II and Safety Tier A Source: Segal Company, Actuarial Valuation Report, June 30, 2016

The maximum General Tier I benefit formula is approximately 2.62 percent of monthly final average compensation at age 62. The maximum General Tier II benefit formula is approximately 2.43 percent of monthly final average compensation at age 65. The maximum Safety Tier I and Safety Tier II benefit formula is approximately 2.62 percent of monthly compensation at age 55. Monthly final average compensation is based on the highest 26 consecutive pay periods (one year) of eligible earnings for Tier I members and the highest 78 consecutive pay periods (three years) for Tier II members.

General Tier A members entered the system on or after March 8, 2002, and before August 28, 2009. The maximum General Tier A benefit formula is approximately 3 percent of monthly final average compensation at age 60. The maximum Safety Tier A benefit formula is 3 percent of monthly final average compensation at age 50. Monthly final average compensation for Tier A members is based on the highest 26 consecutive pay periods (one year) of eligible earnings. Tier A members may retire at age 50 with 10 or more years of service credit, or at any age with 30 or more years of service credit (20 years for Safety members). All Tier A members (both General and Safety) may retire from active service at age 70 regardless of the number of years of service credit.

On July 21, 2009, the County Board of Supervisors closed Tier A to new entrants and approved by ordinance Tier B for General and Safety members, hired on or after August 28, 2009, and before December 1, 2012. The maximum General Tier B benefit formula is approximately 2.62 percent of monthly final average compensation at age 62. The maximum Safety Tier B benefit formula is 3 percent of monthly final average compensation at age 55. Monthly final average compensation for Tier B members is based on the highest 78 consecutive pay periods (three years) of eligible earnings. General Tier B members may retire when they are at least age 55 with 10 or more years of service credit or at any age with 30 or more years of service credit. Safety Tier B members may retire when they are at least age 50 with 10 or more years of service credit, or at any age with 20 or more years of service credit. All Tier B members (both General and Safety) may retire from active service at age 70 regardless of the number of years of service credit.

On September 12, 2012, the California Public Employees' Pension Reform Act (PEPRA) was signed into law and established Tier C for General and Safety employees entering SDCERA membership on or after January 1, 2013, who meet the PEPRA definition of New Member. PEPRA defines a New Member as an employee who has not been a member of a California public retirement system within the six months preceding their hire date with the County. The benefit formula for General members is 2.5 percent at age 67 and the Safety formula is 2.7 percent at age 57. Monthly final average compensation for Tier C members is based on the highest 78 consecutive pay periods (three years) of eligible earnings. Additionally, PEPRA limits the amount of compensation SDCERA can use to calculate a Tier C retirement benefit. For the fiscal year ended June 30, 2016, the limit for General members was \$117,020 and \$140,424 for Safety members.

### **COST-OF-LIVING ADJUSTMENTS**

Cost-of-living adjustments (COLA) are based on changes in the Consumer Price Index for the San Diego area. The COLA for retired Tier I, Tier II, and Tier A members is limited to a maximum of 3 percent per year. The COLA for retired Tier B and Tier C members is limited to a maximum of 2 percent. Effective May 3, 2007, the Board approved a permanent Supplemental Targeted Adjustment for Retirees (STAR) COLA, a pre-funded supplemental cost-of-living increase benefit, for eligible members whose accumulations (COLA Bank) equaled or exceeded 20 percent as of January 1, 2007. Effective April 1, 2008, this benefit became subject to the same cost-of-living increase paid by SDCERA every April 1.

#### **DISABILITY BENEFITS**

Disability retirement benefits are available to members who are found by the Board to be permanently incapacitated. Members who are eligible for both a disability retirement benefit and a service retirement

benefit receive the greater benefit. In general, members who are eligible for a non-service-connected disability retirement may receive a benefit equal to 1.8 percent of monthly final average compensation per year of service credit. There is no age requirement, but members must have at least five years of service credit to be eligible for the non-service-connected disability benefit. A service-connected disability retirement benefit equal to 50 percent of monthly final average compensation is available to eligible members, regardless of age or length of service.

#### **DEATH BENEFITS**

Death benefits are available to eligible beneficiaries of SDCERA members. Upon a retired member's death, the eligible beneficiary may receive a percentage of the member's retirement benefit based on the option selected at retirement. The eligible beneficiary of a member who received a service-connected disability retirement and selected the unmodified benefit option will receive a monthly continuance of 100 percent of the member's benefit.

Upon a member's death prior to retirement, survivor benefits that may be available are dependent on factors such as whether the member was vested or nonvested at the time of death, and whether the death was job-related. The eligible beneficiary of a nonvested member whose death was non-service-connected may receive a refund of the member's contributions plus interest and one month's salary for each year of service credit to a maximum of six months' salary. Generally, the eligible beneficiary of a vested member whose death was nonservice-connected may receive a monthly benefit equal to 60 percent of the retirement benefit the member would have received if he or she retired for a non-service-connected disability on the date of death. The eligible beneficiary of a member whose death was service-connected may receive a monthly benefit equal to 50 percent of the member's monthly final average compensation.

### SUPPLEMENTAL BENEFIT ALLOWANCE

A Supplemental Benefit Allowance (SBA) is available to General and Safety Tier A members who have at least 10 years of SDCERA service credit at retirement. Tier A members receiving a retirement benefit based on a disability are eligible for the SBA regardless of years or service credit. The SBA is funded from existing reserves and a portion of possible future excess earnings from the Fund, to the extent there are available excess earnings. The SBA is not a vested SDCERA benefit and is not guaranteed. It may be reduced or discontinued at any time.

The SBA reduction, approved by the Board in 2010, was implemented as of January 1, 2011. The current benefit was reduced in 2013 and, absent the allocation of any available excess earnings, will be eliminated entirely in 2016. At the current rate of drawdown, the disability supplemental benefit allowance is expected to terminate in 2017.

# TERMINATED MEMBERS' DEFERRED RETIREMENT BENEFIT AND WITHDRAWAL BENEFIT

A member leaving covered employment after having five years of service credit becomes eligible for a retirement benefit, provided the member lives to the minimum service retirement age and does not withdraw his or her accumulated member contributions.

Members who separate with less than five years of service credit may leave their accumulated contributions on deposit, withdraw their contributions with accumulated interest, or, in limited cases, may be entitled to a retirement benefit. Contributions left on deposit with SDCERA continue to accrue interest. Employerpaid contributions are not refundable.

### **HEALTHCARE PLAN**

#### **DESCRIPTION OF PLAN**

SDCERA administers an Other Post Employment Benefits (OPEB) healthcare plan (OPEB Plan) on behalf of the County and SDCERA's Participating Employers.

### HEALTH BENEFITS FOR RETIRED MEMBERS

The Board has approved a Health Insurance Allowance (HIA) for eligible retired Tier I and Tier II members. The allowance is paid from a Health Benefits 401(h) Trust established by the Board. This Health Benefits 401(h) Trust, which is commingled with total Fund assets for investment purposes, is used exclusively to fund future retired member health insurance allowances and is funded by the County and Participating Employers. The HIA is not a vested SDCERA benefit and is not guaranteed. It may be reduced or discontinued at any time.

The HIA may be used toward a member's insurance premiums for an SDCERA-sponsored plan or toward medical, dental, and prescription insurance premiums paid to other providers elected by the member. Currently, an HIA benefit is paid to retired General and Safety Tier I and Tier II members, with at least 10 years of SDCERA service credit. The allowance increases for each year of service credit, with the maximum allowance of \$400 per month available for members with 20 or more years of SDCERA service credit. When members become eligible for Medicare (generally at age 65), their HIA allowance changes to \$300 per month, plus reimbursement for Medicare Part B premiums. Members who were granted a disability retirement and determined to be totally disabled are eligible for the maximum allowance. Members with less than 10 years of service credit who were granted a disability retirement and determined to be partially disabled are eligible for the minimum allowance.

SDCERA's Statement of Plan Net Position is allocated between the Plan and OPEB Plan based on their pro-rata share of total Fund assets after the balances and transactions specific to the Plan and OPEB Plan are assigned. OPEB Plan assets are pooled with Plan assets for the purpose of investment. The total investment income of the pooled funds is allocated between the Plan and OPEB Plan. Fund income is allocated to the OPEB Plan based on its pro-rata share of total Fund assets.

# 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES MEASUREMENT FOCUS AND BASIS OF ACCOUNTING

SDCERA's operations are accounted for on the accrual basis for accounting. Employer and member contributions are recognized when due pursuant to formal commitments, as well as statutory or contractual requirements. Investment income is recognized as revenue when earned. Retirement benefits and refunds are recognized when due and payable in accordance with the terms of the Plan. Other expenses are recognized when the corresponding liabilities are incurred. The net appreciation/(depreciation) in fair value of investments is recorded as an increase/(decrease) to investment income based on the valuation of investments, which includes realized and unrealized gains and losses on investments.

### **USE OF ESTIMATES**

The preparation of SDCERA's financial statements, in accordance with accounting principles generally accepted in the United States of America, requires management to make estimates and assumptions that affect certain financial statement amounts and disclosures. Actual results could differ from those estimates.

### **CASH AND SHORT-TERM INVESTMENTS**

Cash and short-term investments consist of cash and securities and deposits held in a pooled account with the County. Collateral cash is invested in fixed income and related cash securities with a maximum of 180 days effective duration. Short-term investments consist of cash held in money market accounts and securities readily convertible to cash.

Cash equivalents and securities for swaps and futures consist of money market securities and collective short-term investments with original maturities of three months or less.

#### **INVESTMENTS**

CERL grants the Board exclusive control over SDCERA's investment portfolio. It allows the Board to invest, or delegate the authority to invest, the investment portfolio through the purchase, holding, or sale of any form or type of investment, financial instrument, or financial transaction when prudent in the informed opinion of the Board. All purchases and sales of investments are accounted for on a trade-date basis, and dividends declared but not received are accrued on the ex-dividend date. Realized and unrealized gains or losses of securities are determined based on fair values.

### **VALUATION OF INVESTMENTS**

SDCERA's investments include equity, fixed income, private equity, infrastructure, natural resources, real estate, and other investments. The investments are reported at fair value, but the diversity of the investment type requires a variety of techniques to determine fair value.

The following outlines the general valuation processes and information sources:

#### **EQUITY**

Fair value for exchange-traded investments is determined as of the close of the trading date of the primary market or agreed upon exchange. Listed investments that are not traded on a particular day are valued at the last known price. Over-the-counter investments not traded on an exchange are valued based on prices obtained from a third-party pricing source.

#### **FIXED INCOME**

Securities with an active market are valued using the last traded price on a specific date. Other securities not actively traded are valued by third-party pricing sources using inputs such as recent trades, price quotes, maturity, and credit ratings.

### PRIVATE EQUITY, INFRASTRUCTURE, AND NATURAL RESOURCES

The fair value of all private equity, infrastructure, and natural resources assets is determined by management based on valuations provided in good faith by the General Partners/Fund Managers consistent with the managers' valuation policies as outlined in the managers' documents. The assumptions used in the valuations are based upon the nature of the investment and underlying business. The valuation techniques vary based upon investment type and involve a certain degree of expert judgment. In addition, private equity investments held by managers are subjected to annual independent audit.

#### REAL ESTATE

Direct-owned properties are held in separate accounts. Limited partner interests are valued based on the net asset value of the partnership, which is determined by the general partners in accordance with the valuation policies as outlined in the managers' documents. The properties are generally valued through

an independent third-party appraisal performed on a rotational one to three-year basis consistent with the Uniform Standards of Professional Appraisal Practice. During the interim years, real estate values are adjusted for market conditions and cash flow activities. In addition, real estate investments held in separate accounts and limited partner interests are subjected to an annual independent audit.

There are three different valuation methods that may be used: 1) the market approach, which uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities, 2) the income approach, which uses valuation techniques to convert expected future amounts to a single present amount, and 3) the cost approach, which is based on the amount that currently would be required to replace the service capacity of an asset. Observable inputs into the valuation are preferred, but unobservable inputs, including assumptions involving risks may also be included as deemed appropriate.

Real estate investments are reported net of outstanding debts in the financial statements. As of June 30, 2016, SDCERA's share of outstanding principal debts on directly-held real estate investments totaled approximately \$283.6 million as summarized below:

#### **MORTGAGE LOANS PAYABLE**

As of the fiscal year ended June 30, 2016 (dollars in thousands)

Fiscal year payable	Principal <sup>(1)</sup>	Interest <sup>(2)</sup>	Total
2017	\$ 65,514	\$ 8,954	\$ 74,468
2018	61,178	8,561	69,739
2019	40,129	5,749	45,878
2020	10,000	4,213	14,213
2021	64,625	2,741	67,366
2022-2026	42,150	2,753	44,903
Total	\$283,596	\$32,971	\$316,567

<sup>1.</sup> Principal includes amortization and terminal principal payments for the loan balance as of June 30, 2016.

#### OTHER EXTERNALLY-MANAGED FUND STRUCTURES

Investments made in externally-managed funds, such as hedge funds and relative value funds, are recorded at fair value based on the proportionate interest in the net asset value of the funds. Acceptable fair valuation methods and applications are used that give the highest priority to unadjusted quoted prices in active markets for identical or equivalent assets.

### **DERIVATIVE FINANCIAL INSTRUMENTS**

SDCERA utilizes a diverse group of derivative instruments across the total Fund, including swaps, options, forwards, and a variety of futures contracts. All derivatives are considered investments and the fair value of all derivative instruments are reported in the Statement of Plan Net Position.

Swaps allow SDCERA to exchange a money market return for the rights to the return of a specific index, such as MSCI World, U.S. high yield or commodity indices.

<sup>2.</sup> Interest includes interest payments on the forecasted loan balances, inclusive of additional draws after June 30, 2016.

Options and forwards are standard contracts utilized for exposure to foreign currency markets. Options are contracts that give the buyer the right, but not the obligation, to buy or sell a specified quantity of a commodity, i.e., foreign currency, at a specified price within a specified period of time. Forwards are contracts in which a seller agrees to deliver a specified commodity to a buyer sometime in the future. Forward contracts are not traded on federally-designated exchanges because terms of the forward are not standardized, i.e., delivery time and amount are negotiated between the buyer and seller.

Futures contracts are standardized according to the quality, quantity, and delivery time and location for each commodity or instrument and are traded on organized exchanges, thereby minimizing counterparty risk. Futures contracts have daily cash settlement and the net gains and losses for the daily settlements are included in the Statement of Changes in Plan Net Position.

Derivative instruments are designed to provide equivalent exposure to the assets they emulate. SDCERA's use of swaps and futures is structured such that market exposure is fundamentally equivalent to a direct cash investment. SDCERA believes such vehicles can offer significant advantages over a direct investment in the asset, including efficient use of capital, and lower transaction and custody costs.

### CAPITAL ASSETS

Capital assets are carried at cost less accumulated depreciation. Depreciation is calculated using the straight-line method with a three-to-ten year life for computer software, three years for hardware, and five to ten years for office equipment and leasehold improvements. The cost and accumulated depreciation of capital assets is depicted in the table below:

**CAPITAL ASSETS** For the fiscal year ended June 30, 2016

	Balance 07/01/2015	Additions	Deletions & transfers	Balance 06/30/2016
Capital assets being depreciated				
Computer hardware, software, and maintenance	\$18,596,465	\$1,120,719	\$776,979	\$18,940,205
Office furniture and fixtures	1,467,464	_	-	1,467,464
Leasehold improvements	1,641,872	_	-	1,641,872
Total capital assets being depreciated	21,705,801	1,120,719	776,979	22,049,541
Less accumulated depreciation for:				
Computer hardware, software, and maintenance	(6,504,941)	(1,607,803)		(8,112,744)
Office furniture and fixtures	(1,378,826)	(23,572)		(1,402,398)
Leasehold improvements	(1,343,169)	(162,303)		(1,505,472)
Total accumulated depreciation	(9,226,936)	(1,793,678)	_	(11,020,614)
Net capital assets	\$12,478,865	\$ (672,959)	\$776,979	\$11,028,927

Note: Depreciation expenses totaled \$1,793,678 for FY 2016.

### **INCOME TAXES**

The Internal Revenue Service has ruled that plans such as SDCERA's qualify under Section 401(a) of the Internal Revenue Code and are not subject to tax under present income tax laws. On June 16, 2016, the Internal Revenue Service issued SDCERA a favorable Tax Determination Letter. Accordingly, no provision for income taxes has been made in the accompanying basic financial statements.

### IMPLEMENTATION OF NEW ACCOUNTING STANDARD

Effective July 1, 2015, SDCERA adopted the provisions of Governmental Accounting Standards Board (GASB) Statement No. 72, Fair Value Measurement and Application. The requirements for GASB Statement No. 72 include additional disclosures for each class or type of asset and liability measured at fair value. It requires disclosure of fair value measurement and level of fair value hierarchy within which the fair value measurements are categorized (level 1, 2, or 3).

### 3. DEPOSITS AND INVESTMENTS

SDCERA retains investment managers that specialize in particular asset classes. Investment managers are subject to the guidelines and controls established in SDCERA's Investment Policy Statement (IPS) and contracts executed with the Board. SDCERA utilizes a third-party custodian to custody Plan assets.

In accordance with GASB Statement No. 40, Deposit and Investment Risk Disclosures, investment risk disclosure is required for interest rate risk, credit risk (including custodial credit risk and concentrations of credit risk) and foreign currency risk.

#### CONCENTRATION OF CREDIT RISK

Concentration of credit risk is the risk of loss attributed to the magnitude of an investment in a single issuer. As of June 30, 2016, the Fund had no single issuer that exceeds five percent of total investments per GASB Statement No. 40 disclosure requirements or any one issuer which represents five percent or more of total net position in accordance with GASB Statement No. 67. Investments issued or explicitly guaranteed by the U.S. government and investments in mutual funds, external investment pools, and other pooled investments are exempt from GASB disclosure requirements.

### **HIGHLY-SENSITIVE INVESTMENTS**

As of June 30, 2016, SDCERA's investments included collateralized mortgage obligations and mortgage backed securities totaling \$216.6 million. These securities are highly sensitive to interest rate fluctuations and are subject to early payment in a period of declining interest rates. The resulting reduction in expected total cash flows affects the fair value of these securities.

#### ANNUAL RATE OF RETURN

In FY 2016, the annual money-weighted rate of return for the Plan net of investment expenses was 1.43 percent. The money-weighted rate of return reflects investment performance, net of investment expense, adjusted for the timing of cash flows and the amounts invested. The money-weighted rate of return is different than the time-weighted rate of return for the Plan, which was 0.45 percent.

### **INTEREST RATE RISK**

It is the practice of the Plan to require investment managers to diversify by issue, maturity, sector, coupon and geography. As of June 30, 2016, SDCERA had the following investments and maturities:

#### **INTEREST RATE RISK**

(dollars in thousands)

		Investment Maturities (in years)								
Investment type	Fair	Value	Les	s than 1	1-5 6-10		More	than 10		
Asset and mortgage backed securities	\$	80,490	\$	47,858	\$	32,632	\$	-	\$	-
Certificates of deposits		419		419		-		-		_
Collateralized mortgage obligations		136,067		118,390		-	-	7,300		10,377
Commercial paper		151,711		151,711		-		-		-
Convertible bonds		243,851		4,480		158,115	23	3,782		57,474
Corporate bonds	2,	315,296		848,182		841,526	426	5,434		199,154
Municipal bonds		27,442		16,441		11,001		-		_
International bonds		459,074		422,928		36,146		-		-
Private placements		570,694		376,214		124,022	69	9,429		1,029
Repurchase agreements		194		194		-		-		-
US Governments		161,940		86,427		75,513		-		-
US Treasuries		325,437		40,433		96,554		_		188,450
Total	\$ 4,	472,615	\$ 2	2,113,677	\$ 1	1,375,509	\$ 526	5,945	\$	456,484

### **CREDIT RISK**

SDCERA assumes credit risk through two principal sources. First, by accepting both secured and unsecured debt obligations of various governments, corporate and consumer borrowers through its investment portfolio, the Fund is exposed to the creditworthiness of the underlying issuers. These holdings are well diversified and managed by professional investment managers. Second, the Fund engages in various over-the-counter (OTC) agreements that exchange one cash flow stream for another. These transactions represent mutual commitments between two counterparties who are expected to perform according to the terms of a contractual commitment. SDCERA has entered into ISDA Credit Support Annex (CSA) agreements with a diverse group of counterparties, that require each party to set aside collateral, generally cash or U.S. Treasuries, on a daily basis to offset the change in market value of these contracts.

SDCERA monitors the OTC risk and collateral daily. Through this combination of diversification and the introduction of CSA agreements, the Fund addresses its principal source of credit risk emanating from OTC agreements.

The following tables illustrate SDCERA's Fixed Income securities ratings as of June 30, 2016:

**CREDIT RISK** 

As of June 30, 2016 (dollars in thousands)

Ratings	Domestic Core Fixed Income	Convertibles Fixed Income	High-Yield Fixed Income	Short-Term Investments	Total
Govt	\$ 487,378	\$ -	\$ -	\$ -	\$ 487,378
AAA	-	937	673,239	178,100	852,276
AA	-	_	62,101	324,605	386,706
A	-	10,053	181,121	833,271	1,024,445
BBB	-	28,900	203,081	204,015	435,995
ВВ	-	33,326	217,828	862	252,015
В	-	18,938	280,059	167	299,165
CCC	-	964	42,789	3,157	46,910
СС	-	_	1,053	-	1,053
С	-	_	_	-	_
D	-	_	_	_	-
NR	-	150,733	112,692	423,247	686,673
	\$ 487,378	\$ 243,851	\$ 1,773,963	\$ 1,967,424	\$ 4,472,616

#### **CREDIT RISK PERCENTAGE OF HOLDINGS**

As of June 30, 2016

Ratings	Domestic Core Fixed Income	Convertibles Fixed Income	High-Yield Fixed Income	Short-Term Investments
Govt	100.0%	0.0%	0.0%	0.0%
AAA	0.0%	0.4%	38.0%	9.0%
AA	0.0%	0.0%	3.5%	16.5%
A	0.0%	4.1%	10.2%	42.4%
BBB	0.0%	11.8%	11.4%	10.4%
ВВ	0.0%	13.7%	12.3%	0.0%
В	0.0%	7.8%	15.8%	0.0%
CCC	0.0%	0.4%	2.4%	0.2%
CC	0.0%	0.0%	0.1%	0.0%
С	0.0%	0.0%	0.0%	0.0%
D	0.0%	0.0%	0.0%	0.0%
NR	0.0%	61.8%	6.3%	21.5%
	100.0%	100.0%	100.0%	100.0%

#### DOMESTIC CORE FIXED INCOME PORTFOLIO

SDCERA's Domestic Core Fixed Income portfolio consists of government securities, corporate bonds, private placements, and other bonds. The overall weighted average credit rating for Domestic Core Fixed Income was mostly comprised of U.S. government securities, which were rated AAA, but are exempt from the credit rating risk disclosures.

### **CONVERTIBLES FIXED INCOME PORTFOLIO**

SDCERA's Convertibles Fixed Income portfolio invests in convertible bonds, convertible preferred stock and readily tradable private placements. The overall weighted average credit rating of the Convertibles Fixed Income portfolio was BB, excluding 61.8 percent of unrated securities.

### HIGH-YIELD FIXED INCOME PORTFOLIO

The weighted average credit rating of the High-Yield Fixed Income Portfolio as of June 30, 2016, was AAA, excluding 6.3 percent of unrated securities.

### **CUSTODIAL CREDIT RISK**

It is the practice of the Fund that all investments are insured, registered, or held by the Plan or its agent in the Plan's name. Deposits are to be insured, registered or collateralized with securities held at fiscal agents in the Plan's name.

### **FOREIGN CURRENCY RISK**

SDCERA allows international equity and fixed income managers to enter into foreign exchange contracts provided that the contracts have a maturity of one year or less and are limited to hedging currency exposure existing in the portfolio. SDCERA's exposure to foreign currency risk derives from its positions in foreign currency denominated international equity and fixed income investments.

### **NET EXPOSURE TO FOREIGN CURRENCY RISK**

As of June 30, 2016 (dollars in thousands)

Currency name	Equity	Fixed income	Real assets	Foreign Exchanges	Short-term investments	Total
JAPANESE YEN	\$ 0	\$ 259,353	\$ 0	\$ (11,609)	\$ 24,282	\$ 272,026
EURO	132,300	0	0	208	84	132,592
DANISH KRONE	0	74,739	0	465	17,279	92,483
BRAZIL REAL	17,413	30,770	0	(5,836)	0	42,347
INDIAN RUPEE	40,425	0	0	0	0	40,425
HONG KONG DOLLAR	39,367	0	0	0	0	39,367
SOUTH KOREAN WON	35,879	0	0	0	0	35,879
NEW TAIWAN DOLLAR	30,723	0	0	0	0	30,723
CANADIAN DOLLAR	1,906	23,236	0	170	(1)	25,311
SOUTH AFRICAN RAND	20,466	0	0	0	0	20,466
AUSTRALIAN DOLLAR	3	13,342	0	(170)	150	13,325
THAILAND BAHT	13,240	0	0	0	0	13,240
MEXICAN PESO	13,198	0	0	0	3	13,201
CHINESE YUAN	8,038	0	0	0	0	8,038
NEW TURKISH LIRA	7,593	0	0	0	0	7,593
MALAYSIAN RINGGIT	6,067	0	0	0	0	6,067
PHILIPPINE PESOS	5,694	0	0	0	0	5,694
POUND STERLING	4,575	624	0	281	1	5,481
INDONESIAN RUPIAH	4,554	0	0	0	0	4,554
CZECH KORUNA	341	0	0	55	3,163	3,559
SINGAPORE DOLLAR	3,363	0	0	0	0	3,363
RUSSIAN RUBLES	3,089	0	0	0	0	3,089
POLISH ZLOTY	2,925	0	0	0	0	2,925
CHILEAN PESO	2,356	0	0	0	0	2,356
SWISS FRANC	2,113	0	0	0	0	2,113
NIGERIAN NAIRA	2,034	0	0	0	0	2,034
Other (Less than \$2 million holdings)	7,660	0	0	7	0	7,667
Total	\$ 405,322	\$ 402,064	\$0	\$ (16,429)	\$ 44,961	\$ 835,918

### **SECURITIES LENDING**

SDCERA'S IPS permits the Plan to use investments and to enter into securities lending transactions. SDCERA lends U.S. Government obligations, domestic and international bonds, and equities to various brokers with a simultaneous agreement to return collateral for the same securities plus a fee in the future. The securities lending agent manages the securities lending program and receives securities and cash as collateral. Cash and non-cash collateral are pledged at 102 percent and 105 percent of the fair value of domestic securities and international securities lent, respectively. There are no restrictions on the amount of securities that can be lent at one time. The term to maturity of the loaned securities is generally not matched with the term to maturity of the investment of the cash collateral. The security lending agents are required to indemnify SDCERA if the borrowers fail to return the borrowed securities.

SDCERA's securities lending transactions, as of June 30, 2016, are summarized in the following table. The Plan lent \$53.3 million in securities and received cash and non-cash collateral of \$54.6 million from borrowers.

#### **SECURITIES LENDING TRANSACTIONS**

(whole dollars) As of June 30, 2016

	SDCERA Securities Lent	Cash and Non-Cash Collateral
Lent for cash collateral:		
Domestic corporate	\$47,569,287	\$48,758,773
Domestic equities	5,423,969	5,538,142
Lent for securities collateral:		
US Government Debt	272,785	278,449
Total	\$53,266,041	\$54,575,364

In FY 2016, SDCERA received a premium on all securities it held as collateral.

Cash collateral is invested by the agent in a separately managed short-term investment account. At June 30, 2016, short-term investments are comprised of 35 percent overnight Repurchase Agreements and 40 percent Time Deposits. Asset-backed Securities and Other represent 25 percent of the short-term investments. Of the Asset-backed and Other Securities, 94 percent are rated AAA and the remaining 6 percent are rated A. SDCERA does not have the ability to pledge or sell collateral securities without a borrower default. At the end of the current fiscal year, SDCERA had no credit risk exposure to borrowers.

#### **SECURITIES LENDING INVESTMENTS**

(whole dollars) As of June 30, 2016

	Fair Value
Repurchase agreements	\$ 18,985,793
Asset-Backed floating	1,798,461
Time Deposits	21,580,000
Other (cash)	11,872,112
Total	\$ 54,236,366

### **DERIVATIVE INSTRUMENTS**

The derivative instruments presented in the following table are reported in the financial statements in the domestic equity, international equity, fixed income, and private equity categories.

#### **DERIVATIVES INSTRUMENTS SUMMARY**

For the fiscal year ended June 30, 2016 (dollars in thousands)

Derivative type	Changes In Fair Value*	Fair value	Notional value
Forwards	\$ (30,726)	\$ (16,429)	\$ 444,181
Futures	42,768	11,383	713,722
Options	-	30	-
Swaps	18,108	10,133	1,556,482
Total	\$ 30,150	\$ 5,115	\$ 2,714,385

<sup>\*</sup> All changes in the fair value of these derivatives are reported as investment income in the Statement of Changes in Net Position.

### **FORWARDS**

As of June 30, 2016, SDCERA has \$444.2 million in exposure to foreign currency primarily through shortterm investments.

A summary of SDCERA's forward contracts are shown in the chart below:

#### **FORWARD CONTRACTS**

As of June 30, 2016 (dollars in thousands)

	Notio	onal Value	Fair Value
Cash and Cash Equivalents with fiscal agents	\$	52,509	\$ (54)
Index Fund		391,672	(16,375)
Total	\$	444,181	\$ (16,429)

### **FUTURES**

A summary of SDCERA's futures contracts at June 30, 2016, is shown in the chart below:

#### **FUTURES CONTRACTS**

As of June 30, 2016 (dollars in thousands)

Category	Notional value	Fair value	
Fixed Income Futures	\$ (140,562)	\$ -	
Managed Futures	854,284	11,383	
Total	\$ 713,722	\$ 11,383	

### **OPTIONS**

The table below shows SDCERA's option investments by type:

#### **OPTIONS**

As of June 30, 2016 (dollars in thousands)

Option Type	Notional Value	Fair Value	
Put	\$ -	\$ 30	
Total	\$ -	\$ 30	

### **SWAPS**

The table below shows SDCERA's swaps investments by type:

### **EXTERNALLY MANAGED SWAPS**

As of June 30, 2016 (dollars in thousands)

Туре	Description/Counterparty	Notional Value	Fair Value
Total Return Swaps	Bank of America	\$ 509,479	\$ 13,670
Total Return Swaps	Deutsche Bank	1,047,003	(3,537)
Total		\$1,556,482	\$ 10,133

### **DERIVATIVE CREDIT RISK**

The derivative instruments have a maturity of one year or less. A summary of counterparty credit ratings relating to swaps and forward contracts in asset position as of June 30, 2016, is as follows:

### **CREDIT RISK DERIVATIVES AT FAIR VALUE**

As of June 30, 2016 (dollars in thousands)

Credit rating	Swaps	Forwards
A	\$ 13,670	\$ 972
AA-	-	97
Total subject to credit risk	\$ 13,670	\$ 1,069

### **FAIR VALUE OF INVESTMENTS**

SDCERA measures and records its investments using fair value measurement guidelines established by Generally Accepted Accounting Principles. These guidelines recognize a three-tiered fair value hierarchy, as follows:

- Level 1: Quoted prices for identical investments in active markets;
- Level 2: Observable inputs other than quoted market prices; and,
- Level 3: Unobservable inputs.

At June 30, 2016 SDCERA had the following recurring fair value measurements.

### **FAIR VALUE MEASUREMENTS**

	Total at 6/30/2016	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				
Equity Securities				
Domestic Equity Securities	\$ 2,441,911,794	\$ 84,969,355	\$ 496,158,666	\$1,860,783,773
International Equity Securities	291,426,517	906	0	291,425,611
Total Equity Securities	\$2,733,338,311	\$ 84,970,261	\$ 496,158,666	\$2,152,209,384
Fixed Income Securities				
U.S. Government Obligations	\$ 518,157,349	\$ 518,157,349	\$0	\$0
Domestic Investment Grade Bonds	2,544,888,074	30,412,723	1,585,366,118	929,109,233
Domestic Convertible Bonds	243,694,653	0	243,694,653	0
Domestic High Yield Bonds	303,619,152	0	0	303,619,152
International Bonds	402,063,785	0	402,063,785	0
Total Fixed Income Securities	\$4,012,423,013	\$548,570,072	\$ 2,231,124,556	\$1,232,728,385
Collateral from Securities Lending	\$ 54,236,366	\$ 0	\$ 54,236,366	\$ 0
Total Investments by Fair Value	\$ 6,799,997,690	\$633,540,333	\$ 2,781,519,588	\$ 3,384,937,769
Investments measured at Net Asset Value (	NAV)			
Global Macro Hedge Funds	\$ 183,530,195	_		
Multi-Strategy Hedge Funds	12,088,405	_		
Relative Value Funds	335,224,923	_		
Private Credit Funds	127,151,617	_		
Private Equity	642,516,909	_		
Natural Resources Funds	408,320,936	_		
Infrastructure	240,652,896	_		
Real Estate	974,996,044	_		
Cash and Securities for Futures	132,805,332	_		
Unallocated Funds	3,585,350	_		
Total Investments measured at NAV	\$3,060,872,607	_		
Total investments Measured at Fair Value	\$ 9,860,870,297			
Derivatives				
Forwards	\$ (16,429,378)	\$ 0	\$ (16,429,378)	\$ 0
Futures	11,382,922	11,382,922	0	0
Options	30,214	0	30,214	0
Swaps	10,132,548	0	10,132,548	0
Total Derivatives	\$ 5,116,306	\$ 11,382,922	\$ (6,266,616)	\$ 0

Note: Values derived from custodian bank and presented based on securities classification. Amounts per asset class, when aggregated, correspond to values presented in the Statement of Fiduciary Net Position.

Fixed Income and equity securities classified in Level 1 are valued using prices quoted in active markets for those securities. Fixed Income and equity securities classified in Level 2 are valued using the matrix pricing, market corroborated pricing, and inputs such as yield curves and indices.

- U.S. Government Obligations: quoted prices for identical securities in markets that are not active;
- Corporate Bonds: guoted prices for similar securities in active markets;

Securities classified in Level 3 are valued using investment manager pricing for private placements, private equities, hedge funds, etc.

Investments valued using the net asset value (NAV) per share (or its equivalent) are considered "alternative investments" and, unlike more traditional investments, generally do not have readily obtainable market values and take the form of limited partnerships. SDCERA values these investments based on the partnerships' audited financial statements. If June 30 statements are available, those values are used preferentially. However, some partnerships have fiscal years ending at other than June 30. If June 30 valuations are not available, the value is progressed from the most recently available valuation taking into account subsequent calls and distributions. The following table presents the unfunded commitments, redemption frequency (if currently eligible), and the redemption notice period for SDCERA's alternative investments measured at NAV:

#### INVESTMENTS MEASURED AT NET ASSET VALUE (NAV)

	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Global Macro Hedge Funds <sup>(1)</sup>	\$ 183,530,195	5 \$ 0		
Multi-Strategy Hedge Funds <sup>(2)</sup>	12,088,405	0		
Relative Value Funds <sup>(3)</sup>	335,224,923	0		
Private Credit Funds <sup>(4)</sup>	127,151,617	53,857,221		
Private Equity <sup>(5)</sup>	642,516,909	424,873,494		
Natural Resources Funds <sup>(6)</sup>	408,320,936	126,379,681		
Infrastructure <sup>(7)</sup>	240,652,896	69,898,440		
Real Estate <sup>(8)</sup>	974,996,044	210,007,030	Monthly	30 days
Cash and Securities for Futures	132,805,332	2 0		
Unallocated Funds	3,585,350	0		
Total Investments measured at NAV	\$ 3,060,872,607	\$ 885,015,866		

- (1) Global Macro Hedge Funds. This type includes investments in two hedge funds that aspire to profit as a result of broad economic trends and holds many types of assets including commodities and currencies. Investment positions are maintained for one to six months. The fair values of the investments in this type have been determined using the NAV per share (or its equivalent) of the investments.
- (2) Multi-strategy Hedge Funds. This type invests in two hedge funds that pursue multiple strategies to diversify risks and reduce volatility. The Funds invest in certain instruments that are generally less liquid than publicly-traded securities and/or for which reliable market quotations generally are not available. The funds will hold such instruments at fair value, which will be determined in accordance with the fund's valuation procedures as set forth in their Memorandums. The fair values of the investments in this type have been determined using the NAV per share (or its equivalent) of the investments.

- (3) **Relative Value Funds.** This type includes one fund that aims to deliver efficient exposure to a well-diversified portfolio of hedge fund risk premiums, which capture the core essence of most hedge fund strategies. The investment objective of the Plan is to produce high risk-adjusted returns while targeting a low long term average correlation to traditional markets. The Fund attempts to capture the key insights of well-known hedge fund strategies by using a rigorous, dynamic investment process to build a portfolio that holds the same broad range of global securities. NAV figures noted in the report are calculated by multiplying the holdings of particular instruments as reported to International Fund Services (IFS) and the relevant prices obtained or calculated in accordance with the pricing methodology that IFS is directed to use by the Investment Manager of the Fund. Long and short positions in instruments and other offsetting positions are reflected in the NAV figures on a net basis.
- (4) **Private Credit Funds.** This type includes five funds that primarily focus on credit investment strategies that are often less liquid in nature. These funds may consist of primary and secondary opportunities encompassing performing, stressed and distressed public and private securities primarily within corporate credit, including senior loans, high yield, mezzanine, debtor in possession financings, rescue or bridge financings, and other debt investments. The fair values of the investments in this type have been determined using the NAV per share (or its equivalent) of the investments. NAV is measured by using the mark-to-market value of the aggregate principal amount of the underlying collateralized loan obligations.
- (5) **Private Equity Funds.** This type includes 54 private equity funds that are principally comprised of illiquid, non-publicly traded securities and are realized as distributions are made. Investments in these Limited Partnership investments are stated at fair value in accordance with Generally Accepted Accounting Principles of the United States of America and Accounting Standards Codification (ASC Topic 820), Fair Value Measurement (ASC Topic 820).
- (6) **Natural Resource Funds.** This type includes 17 funds that cover anything that is mined or collected in raw form. Natural resource investing overlaps with more specialized types of investing, including oil and gas investing, precious metals investing, minerals and (base) metals investing and so on. Liquidity risk includes the risk of not being able to liquidate investments in a timely manner at a reasonable price. Illiquidity may result from the absence of an established market for the investments, as well as legal, contractual or other restrictions on their resale by the Fund. Dispositions of investments may be subject to contractual and other limitations on transfer (including prepayment penalties with respect to property-level debt) or other restrictions that would interfere with subsequent sales of such investments or adversely affect the terms that could be obtained upon any disposition thereof. This illiquidity could adversely affect the Plan's ability to dispose of properties at targeted levels. Investments are stated at a fair value, which reflects the amount for which these assets could be exchanged between knowledgeable, willing parties in an orderly arm's-length transaction.
- (7) **Infrastructure Funds.** This type includes six infrastructure funds whose investment strategy is to invest throughout emerging markets in companies whose principal business is focused on developing, operating, constructing and owning power and energy infrastructure assets. The net asset value of the Plan's shares of common stock is computed based upon the value of the securities and other assets and liabilities held by the Fund(s).
- (8) **Real Estate Funds.** This type includes 17 real estate funds that invest both in U.S. and foreign commercial real estate. The fair values of the investments in this type have been determined using the NAV per share (or its equivalent) of the Plan's ownership interest in partners' capital. These investments can never be redeemed with the funds. Distributions from each fund will be received as the underlying investments of the funds are liquidated. Twelve percent of the total investment in this type is expected to be sold within the next 12 months.

# 4. PENSION PLAN FUNDING POLICY

Pension normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using an individual entry-age actuarial cost method having the following characteristics:

- (i) The annual normal costs for each active member, payable from the date of entry into the Plan until retirement, would accumulate to the amount necessary to fully fund the member's retirement related benefits; and
- (ii) Each annual normal cost is a constant percentage of the member's year-by-year projected covered pay.

Members are required by statute to contribute a percentage of covered salary to SDCERA. Member contribution rates are determined by an actuarial valuation and incorporate actuarial assumptions such as interest rate earned, annual salary increase rate and anticipated mortality among service retired members. The COLA for retired members is funded by both member and employer contributions. Because there is no requirement to account for these contributions separately, they are shown combined with the basic contributions.

Employers have negotiated to pay all or a portion of some member contributions. The member contributions deducted from the member's salary are treated as pre-tax contributions under Section 414(h) of the Internal Revenue Code.

Employers are required by statute to contribute a percentage of covered salary to SDCERA. The Plan's funding policy provides for periodic employer contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are designed to accumulate sufficient assets to pay benefits when due. The normal cost and Actuarial Accrued Liability are determined using an individual entry age normal cost funding method.

The following schedule summarizes the contribution rates in effect at June 30, 2016. Contribution rates for Tier I, Tier A, and Tier B members (General and Safety) are based on rates recommended by the actuary and approved by the Board. Contribution rates for Tier C members (General and Safety) are based on recommendations made by the actuary and approved by the Board as required by PEPRA. The member contribution rates (weighted average) depicted vary according to membership tier. Rates for Tier I, Tier A, and Tier B members also vary depending on entry age and certain negotiated contracts which provide for the employer to pay a portion of the member's contribution.

#### **CONTRIBUTION RATES**

Member Classification	Tier	Average Member Rates	Employer Rate
<u></u>	Tier I, Tier A and Tier B	8.98% - 11.80%	35.07%
General members	Tier C	8.03%	28.96%
C-f-b	Tier A and Tier B	11.94% - 14.41%	45.72%
Safety members	Tier C	13.81%	38.02%

During FY 2016, pension contributions totaled \$510.2 million. This included \$104.6 million in member contributions, and \$405.6 million in employer contributions, which includes \$22.7 million in member contributions paid by employers.

SDCERA is an independent governmental entity. As such, its entire expense of administration is charged against the earnings of the Plan. Earnings from investments are reduced for investment managers' fees, SDCERA investment staff expenses, portfolio evaluation, custodian services and actuarial services for investment related activities. Outside legal expenses are paid from SDCERA's assets.

On May 3, 2007, the Board adopted a change in the Interest Crediting and Excess Earnings Policy (Earnings Policy) to introduce the funded ratio as the determining factor in allowing the Board discretion as to the use of excess earnings. If the funded ratio is below 90 percent, the Board is required to use excess earnings to fund the pension liability. If the funded ratio is between 90 percent and 100 percent, 25 percent of excess earnings are available at the Board's discretion. If the funded ratio is between 100 percent and 115 percent, 50 percent of excess earnings are available at the Board's discretion. If the funded ratio exceeds 115 percent, the Board has full discretion as to the use of excess earnings.

# 5. HEALTH PLAN FUNDING POLICY

The County and participating employers fund health allowances based on a biennial actuarial valuation. The Actuarial Valuation of Other Post Employment Benefits (OPEB) as of June 30, 2014, established the employer contribution rate of 1.78 percent of covered payroll which amounted to \$19.7 million for the FY 2016. The Internal Revenue Code limits employer contributions to a 401(h) account to a maximum of 25 percent of the employer's normal cost contributions to the pension plan. SDCERA is in compliance with this limit.

### 6. RESERVES OF PLAN ASSETS

Member and employer contributions are allocated to various legally required reserve accounts based on actuarial determinations. Member contribution reserves are fully funded. Set forth below are descriptions of the purpose of each reserve account.

#### RESERVE FOR MEMBER CONTRIBUTIONS INCLUDES:

- Contributions from Plan members.
- Contributions from terminated members.
- Contributions representing members who have bought back prior years of SDCERA service credit and for prior service in certain public agencies.
- Contributions made by former employees who have not yet applied for their retirement benefits.

#### RESERVE FOR EMPLOYER CONTRIBUTIONS INCLUDES:

Employer contributions to the Plan for active members.

#### RESERVE FOR RETIREMENT ALLOWANCES INCLUDES:

- · Amounts transferred from member contributions (annuity) received net of the employer's portion of benefits paid for retired Plan members.
- · Amounts transferred from employer contributions (pension) made in prior years for active members upon retirement.

**RESERVE FOR SUPPLEMENTAL ALLOWANCES** designates funds that may be used for payment of the Supplemental Benefit Allowance.

RESERVE FOR DISABILITY SUPPLEMENTAL BENEFIT ALLOWANCES designates funds that may be used for payment of the Disability Supplemental Benefit Allowance. The initial \$20.7 million funding in July 2007 was created by transfer from undistributed earnings.

**RESERVE FOR UNDISTRIBUTED EXCESS EARNINGS** represents earnings on actuarial assets that is the source of funds for crediting interest to reserves semi-annually and for other uses at Board discretion, as permitted by statue and subject to the Earnings Policy.

CONTINGENCY RESERVE AND UNDISTRIBUTED EXCESS EARNINGS RESERVE represents actual earnings that exceed the total interest credited to contributions and reserves up to 1.0 percent of the total assets of the retirement fund as of June 30, 2016.

SMOOTHED MARKET VALUE TRANSITION RESERVE represents the accumulated difference between the Actuarial Value of assets and the book or cost value of assets at June 30, 2005. This was a one-time adjustment to align the reserve balances with the Actuarial Value of Assets.

MARKET STABILIZATION ACCOUNT 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 BENEFITS 401(H) ACCOUNT also known as the OPEB Plan, was established based on the Board of Supervisors and the Board's adoption of a funding mechanism under section 401(h) of the Internal Revenue Code. This mechanism calls for contributions from the employers to be recorded in a separate account each year. Any investment income earned on the account balance increases the balance and any losses reduce it.

Allocation of contributions and investment earnings to the various reserve accounts of net plan position are depicted in the following table:

#### **RESERVE ACCOUNT BALANCES**

As of June 30, 2016 (dollars in thousands)

(dollars in thousands)	
Reserve for member contributions	\$ 861,199
Reserve for County contributions	1,969,985
Reserve for retirement allowances	7,420,849
Total	\$ 10,252,033
Reserve for supplemental benefit allowance	3,046
Reserve for disability supplemental benefit allowance	3,052
Reserve for undistributed earnings	0
Reserve for contingencies	1,940
Reserve for smoothed market value transition	778,603
Reserve for market stabilization	(777,406)
Total retirement fund	\$ 10,261,268
Health benefits 401(h) account	7,790
Total fund	\$ 10,269,058

# 7. ADMINISTRATIVE EXPENSES

The Board annually adopts an administrative expense budget based on the accrued actuarial liability of the Association. By statute, the administrative expenses are charged against SDCERA's investment earnings and contributions are limited to twenty-one hundredths of one percent of the accrued actuarial liability of the Association.

#### **ADMINISTRATIVE EXPENSE LIMITATION**

For the fiscal year ended June 30, 2016

Total Actuarial Accrued Liability (as of June 30, 2015)	\$ 13,080,080
Maximum allowable for administrative expenses (.0021 X \$13,080,080)	\$ 27,468,168
Actual administrative expenses for the fiscal year	\$ 13,875,078
Excess of allowance over actual administrative expenses	\$ 13,593,090
Actual administrative expenses as a % of total Actuarial Accrued Liabilities	0.11%

# 8. COMMITMENTS AND CONTINGENCIES **DERIVATIVE INSTRUMENTS**

SDCERA is party to financial instruments to generate earnings and stabilize excess earnings from active management of fixed income securities and common stocks. Derivative instruments include, but are not limited to, contracts for delayed delivery of securities, commodities or currencies in which the seller agrees to make delivery at a specified future date of a specified instrument at a specified price or yield. Risks arise from the possible inability of counterparties to meet the terms of their contract. The risks of loss from these financial instruments include minimal credit risks but include the possibility that future changes in market prices may make such financial instruments less valuable (market risk).

### **UNFUNDED COMMITMENTS**

Not reflected in the accompanying Statement of Plan Net Position are unfunded commitments to acquire real estate for \$210.0 million, real assets for \$196.3 million, private credit for \$53.9 million and private equity for \$424.9 million. SDCERA meets these commitments from Plan assets over multiple fiscal years.

#### CONTINGENCIES

SDCERA is involved in litigation relating to one matter. In the opinion of management, after consultation with legal counsel, the outcome of this matter is not expected to have a material adverse effect on SDCERA's financial position.

### LEASE COMMITMENTS

SDCERA has operating leases for office facilities and copy equipment. Operating lease payments are recorded as expenses when paid or incurred. The future minimum lease payments are as follows:

### **FUTURE MINIMUM LEASE COMMITMENTS**

(whole dollars)

	Operating Leases		
Fiscal Year Ending June 30	Equipment	Building	
2017	\$ 17,288	\$ 1,352,344	
2018	17,288	1,425,804	
2019	17,288	1,466,900	
2020	17,288	1,508,058	
2021	7,006	1,551,576	
2022	-	1,597,457	
2023	-	1,645,703	
2024	-	1,694,017	
2025	_	1,742,401	
2026	-	1,793,157	
Total Future Minimum Lease Payments	\$ 76,158	\$15,777,417	

### 9. PENSION DISCLOSURES

The components of the Employers' Net Pension Liability of the Plan as of June 30, 2016, are as follows:

#### **EMPLOYER'S NET PENSION LIABILITY (GASB 67)**

As of June 30, 2016 (dollars in millions)

Total pension liability	\$14,559.3
Plan fiduciary net position	\$10,261.3
Employers' net pension liability	\$ 4,298.0
Plan fiduciary net position as a percentage of the total pension liability	70.48%

Note: Net Pension Liability is a financial reporting requirement of GASB Statement No. 67. See Managements Discussion and Analysis for more information.

Source: Segal Consulting, GASB Statement No. 67 Actuarial Valuation Report, June 30, 2016

The net pension liability was measured as of June 30, 2016, and determined based upon rolling forward the total pension liability from the actuarial valuation as of June 30, 2015.

**ACTUARIAL ASSUMPTIONS:** The following significant actuarial assumptions were used to measure the total pension liability as of June 30, 2016:

> 3.00% Inflation Salary increases General: 4.25% to 10.25% and Safety: 4.50% to 12.00% vary by service, including inflation Discount rate 7.25% net of pension plan investment expense, including inflation Cost-of-living adjustment Maximum of 3% for TIER I, II and A Maximum of 2% for TIER B and C

Date of last experience study July 1, 2012 through June 30, 2015

Mortality rates for General members and all beneficiaries are based on the Headcount-Weighted RP-2014 Health Annuitant Mortality Table projected 20 years with the two-dimensional scale MP2015D, set forward one year for females. For Safety members, the same mortality table is used with a two-year setback. For General members with a disability retirement, there is a five-year age set forward for males and four-year set forward for females on post-retirement mortality. For Safety members with a disability retirement, there is a one-year age set forward.

The allocation of investment assets within the SDCERA portfolio is approved by the Board. Plan assets are managed on a total return basis with a long-term objective of achieving the assumed rate of return.

The long-term expected rate of return on pension plan investments, a GASB Statement No. 67 disclosure requirement, 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 weighing the expected future real rates of return by the target asset allocation percentage and by adding expected inflation and deducting 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 investment expenses, used in the derivation of the long-term expected investment rate of return assumptions are summarized in the following table:

#### ASSET CLASS REAL RATE OF RETURN

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Large Cap U.S. Equity	17.685%	5.80%
Small Cap U.S. Equity	1.965%	6.47%
Developed International Equity	16.200%	6.97%
Emerging Markets Equity	9.150%	8.93%
U.S. Core Bonds	10.000%	0.84%
High Yield Bonds	5.000%	3.47%
Global Bonds	2.000%	0.49%
Bank Loan	5.000%	2.34%
Cash & Equivalents	2.000%	(0.46%)
Real Estate	4.500%	4.45%
Value Added Real Estate	4.500%	7.10%
Hedge Fund (Fund to Funds)	8.000%	4.40%
Private Real Asset	6.000%	9.00%
Private Equity	8.000%	9.00%
Total	100%	

**DISCOUNT RATE:** The discount rate used to measure the total pension liability was 7.25 percent as of June 30, 2016. The projection of cash flows used to determine the discount rate assumed Plan member contributions will be made at the current contribution rates 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 Plan's 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 Plan investments was applied to all periods of projected benefit payments to determine the total pension liability as of June 30, 2016.

SENSITIVITY OF THE NET PENSION LIABILTY TO CHANGES IN THE DISCOUNT RATE: The following, a required disclosure of GASB Statement No. 67, presents the employers' net pension liability as of June 30, 2016, calculated using the discount rate of 7.25 percent, as well as what the employers' net pension liability would be if it were calculated using a discount rate that is 1-percentage-point higher (8.25 percent) and 1-percentage-point lower (6.25 percent) than the current rate:

#### SENSITIVITY OF THE NET PENSION LIABILITY TO CHANGES IN THE DISCOUNT RATE

As of June 30, 2016 (dollars in millions)

Valuation Date	1% Decrease	Current Discount	1% Increase
	(6.25%)	Rate (7.25%)	(8.25%)
Employers' net pension liability as of June 30, 2016	\$6,316.8	\$4,298.0	\$2,640.8

Source: Segal Consulting, GAS 67 Actuarial Valuation as of June 30, 2016

# 10. OTHER POST EMPLOYMENT BENEFITS (OPEB)

The following tables summarize the most recent funded status and actuarial assumptions and methods for the OPEB Plan.

#### **OPEB FUNDED STATUS**

As of the latest Valuation Date (dollars in Thousands)

		(2) Actuarial	(3) Unfunded		(4) Annual	UAAL as % of
	(1) Valuation	Accrued	AAL (UAAL)	Funded Ratio	Covered	Covered
<b>Valuation Date</b>	Assets	Liability (AAL)	(2) - (1)	(1)/(2)	Payroll	Payroll (3)/(4)
6/30/2016	7,790	159,417	151,627	4.9%	1,206,940	12.6%

Source: The Segal Consulting, OPEB Actuarial Valuation June 30, 2016

The following summarizes the actuarial assumptions and methods used in the most recent biennial OPEB actuarial valuation and actuarial valuation as of June 30, 2016, which was used to determine current year contribution rates.

### **ACTUARIAL VALUATIONS**

Actuarial valuations for the OPEB Plan involve estimates of the value of reported amounts and assumptions about the probability of events far into the future. The actuarially determined amounts are subject to continual revision as results are compared to past expectations and new estimates are made about the future.

Calculations are based on the benefits provided under the terms of the substantive plan in effect at the time of each valuation and on the pattern of sharing of costs between the employer and plan members to that point. In addition, the projection of benefits for financial reporting purposes does not explicitly incorporate the potential effects of legal or contractual funding limitations on the pattern of cost sharing between the employer and plan members in the future.

#### SUMMARY ACTUARIAL INFORMATION FOR HEALTHCARE PLAN

Valuation date	June 30, 2016	June 30, 2015
Actuarial Cost Method	Entry Age Normal	Entry Age Normal
Amortization Method	Separate declining 20 year bases starting at June 30, 2007, amortized as level dollar amount	Separate declining 20 year bases starting at June 30, 2007, amortized as level dollar amount
Remaining Amortization Period	Various (Separate declining 20 year bases starting at June 30, 2007, amortized as level dollar amount)	Various (Separate declining 20 year bases starting at June 30, 2007, amortized as level dollar amount)
Asset Valuation Method	Market Value	Market Value
Actuarial Assumptions		
Investment Rate of Return*	7.25%	7.50%
Projected Increase in maximum Health Insurance Allowance (HIA)	None	None
Medical cost trend rate	6.50% graded down to ultimate rate of 5.00% over 6 years	7.00% graded down to ultimate rate of 5.00% over 8 years
Dental cost trend rate	5.00%	5.00%

<sup>\*</sup>Includes inflation of 3.00% for 2016 and 3.25% for 2015.

Source: Segal Consulting, OPEB Actuarial Valuation reports.

Actuarial calculations reflect a long-term perspective. Consistent with that perspective, actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets.

The required schedule of funding progress immediately following the Notes to the Basic Financial Statements presents multi-year trend information about whether the actuarial value of Plan assets is increasing or decreasing relative to the actuarial accrued liability for benefits over time.

### 11. SUBSEQUENT EVENTS

SDCERA evaluated subsequent events from June 30, 2016 through December 9, 2016, the date the financial statements were issued. SDCERA concluded that no subsequent events have occurred that would require recognition or disclosure in the financial statements.

### REQUIRED SUPPLEMENTAL INFORMATION (UNAUDITED)

Schedule I below displays the components of the total pension liability and plan fiduciary net position for each year, calculated in conformity with the requirements of GASB Statement No. 67. Covered employee payroll represents the total eligible wages of active members of the Plan.

#### SCHEDULE I-CHANGES IN EMPLOYERS' NET PENSION LIABILITY AND RELATED RATIOS

for the four years ending June 30 (dollars in thousands)

Total pension liability	2016		2015	2014	2013
Service cost	\$ 301,126	\$	286,960	\$ 275,060	\$ 258,308
Interest	981,703		941,789	906,177	881,864
Differences between expected and actual experience	(20,774)		(126,948)	(194,580)	(161,275)
Changes of assumptions	788,402		309,945	0	258,993
Benefit payments, including refunds of employee contributions	(629,095)		(592,259)	(560,751)	(543,284)
Net change in total pension liability	\$ 1,421,362	\$	819,487	\$ 425,906	\$ 694,606
Total pension liability - beginning	13,137,896	:	12,318,409	11,892,503	11,197,897
Total pension liability - ending (a)	\$ 14,559,258	\$ :	13,137,896	\$ 12,318,409	\$ 11,892,503
Plan fiduciary net position					
Contributions – employer	\$ 405,586	\$	414,771	\$ 394,698	\$ 357,893
Contributions – member	104,636		98,590	78,920	71,718
Net investment income	63,686		242,576	1,220,343	669,882
Benefit payments, including refunds of member contributions	(629,095)		(592,259)	(560,751)	(543,284)
Administrative expense	(13,875)		(14,043)	(12,709)	(11,454)
Net change in plan fiduciary net position	\$ (69,062)	\$	149,635	\$ 1,120,501	\$ 544,755
Plan fiduciary net position - beginning	10,330,330		10,180,695	9,060,194	8,515,439
Plan fiduciary net position - ending (b)	10,261,268		10,330,330	\$ 10,180,695	\$ 9,060,194
Association's net pension liability - ending (a) - (b)	\$4,297,990		\$2,807,566	2,137,714	\$ 2,832,309
Plan fiduciary net position as a percentage of the total pension liability	70.48%		78.63%	82.65%	76.18%
Covered employee payroll	\$ 1,140,883	\$	1,120,001	\$ 1,072,896	\$ 1,028,420
Plan net pension liability as a percentage of covered employee payroll	376.73%		250.68%	199.25%	275.40%

### Notes to Schedule:

Benefit changes: All members with membership dates on or after January 1, 2013 enter the new tiers created by the California Public Employees' Pension Reform Act of 2013 (PEPRA).

Data for years prior to 2013 is not available. Information will be presented in future years as it becomes available.

Schedule II below presents the annual money-weighted rate of return as required by GASB Statement No. 67. 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. Performance information presented on page 68 in the Investment Section is calculated on a time-weighted rate of return basis.

#### SCHEDULE II-INVESTMENT RETURNS (PENSION PLAN)\*

	2016	2015	2014	2013	2012
Annual Money-Weighted Rate of Return Net of Investment Expense	1.43%	2.13%	13.39%	7.87%	5.82%

<sup>\*</sup> Data for years prior to 2012 in not available. Information will be presented in future years as it becomes available.

Schedule III below displays the annual required contributions for SDCERA employers based on the actuarially determined rate, and the percentage of these contributions paid by the employer each year.

#### SCHEDULE III- EMPLOYER CONTRIBUTIONS - LAST TEN FISCAL YEARS

(amounts in thousands)

Year Ended June 30	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions*	Contribution Deficiency (Excess)	Covered Employee Payroll	Contributions as a Percentage of Covered Employee Payroll
2006	\$203,700	\$243,700	\$(40,000)	\$931,453	26.16%
2007	231,300	258,200	(26,900)	989,321	26.10%
2008	236,763	236,763	_	1,051,373	22.52%
2009	219,635	219,635	-	1,102,242	19.93%
2010	188,414	189,470	(1,056)	1,050,985	18.03%
2011	205,799	235,392	(29,593)	1,036,693	22.71%
2012	274,106	274,106	-	1,047,414	26.17%
2013	298,128	312,288	(14,160)	1,028,420	30.37%
2014	353,841	353,841	_	1,072,896	32.98%
2015	386,041	386,041	-	1,120,001	34.47%
2016	382,753	382,753	-	1,140,883	33.55%

<sup>\*</sup> Excludes employer pickup of member contributions and proceeds from Pension Obligation Bonds.

Listed below are the key actuarial methods and assumptions adopted by the SDCERA Board and utilized by the actuary in the preparation of the June 30, 2016 Actuarial Valuation Report:

### Actuarial valuation methods:

Valuation	Actuarially determined contribution rates are calculated as of June 30, one year prior to the end of the fiscal year in which contributions are reported.
Actuarial cost method	Entry Age Actuarial Cost Method
Amortization method	Level percent of payroll for total unfunded actuarial accrued liability (UAAL)
Remaining amortization period	Prior to July 1, 2013, the Association's UAAL was amortized over 20-year fixed (i.e., decreasing) layered amortization periods. As of July 1, 2013, any new UAAL resulting from plan amendments is amortized over separate decreasing 15-year periods; early retirement incentive programs (ERIPs) are amortized over separate decreasing periods of up to five years; assumption and method changes are amortized over separate decreasing 20-year periods; and experience gains/ losses are amortized over separate decreasing 20-year periods.
Asset valuation method	Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected return on market value and is recognized over a five-year period. The Actuarial Value of Assets is reduced by the value of the non-valuation reserves and designations. Deferred gains and losses as of June 30, 2012 have been combined and will be recognized in equal amounts over a period of four and a half years from that date.
Actuarial assumptions:	
Investment rate of return	7.25%, net of pension plan investment expense, including inflation
Inflation rate	3.00%
Real across-the-board salary increases	0.50%
Projected salary increases	General: 4.25% to 10.25% and Safety: 4.50% to 12.00%, vary by service, including inflation
Other assumptions	See analysis of actuarial experience during the period July 1, 2012 through June 30, 2015

Schedule IV below displays the funding progress of the OPEB Plan.

### SCHEDULE IV-FUNDING PROGRESS (OPEB PLAN)

(dollars in thousands)

Valuation Date	(1) Valuation Assets	(2) Actuarial Accrued Liability (AAL)	(3) Unfunded AAL (UAAL) (2) - (1)	Funded Ratio (1)/(2)	(4) Annual Covered Payroll	UAAL as % of Covered Payroll (3)/(4)
6/30/08	\$ 18,206	\$ 217,559	\$ 199,353	8.4%	\$ 1,135,432	17.6%
6/30/10	9,221	206,447	197,226	4.5%	1,095,582	18.0%
6/30/12	5,064	185,302	180,238	2.7%	1,052,366	17.1%
6/30/14	4,743	169,192	164,449	2.8%	1,122,864	14.6%
6/30/16	7,790	159,417	151,627	4.9%	1,206,940	12.6%

Source: The Segal Consulting Actuarial Valuation

Schedule V below displays the employer contributions to the OPEB Plan.

### **SCHEDULE V - EMPLOYER CONTRIBUTIONS (OPEB PLAN)**

(dollars in thousands)

Year Ended	Annual Required Contribution (ARC)	Contributions Made	% of Required Contributions Made
6/30/10	\$18,789	\$18,789	100.0%
6/30/11	\$18,028	\$18,028	100.0%
6/30/12	\$19,198	\$19,198	100.0%
6/30/13	\$19,024	\$19,024	100.0%
6/30/14	\$20,208	\$20,208	100.0%
6/30/15	\$21,111	\$21,111	100.0%
6/30/16	\$19,719	\$19,719	100.0%

### OTHER SUPPLEMENTAL INFORMATION

Schedule VI below displays investment expenses for FY 2016.

#### SCHEDULE VI-INVESTMENT EXPENSES

For the fiscal year ended June 30, 2016 (dollars in thousands)

Global Equity	\$	204
US Equity		3,378
Non-US Equity: Developed		3,302
Non-US Equity: Emerging		2,452
Fixed Income		3,098
Alternative/Opportunistic/Other		9,456
Real Estate	:	16,538
Private Equity		13,797
Private Real Assets		13,891
Collateral Cash		1,164
Administrative, In-House Staff and Other		3,665
Custodian Services		782
Consulting Serivces		1,715
Actuarial Services		365
Total Investment Expenses	\$	73,807

Schedule VII below displays administrative expenses for FY 2016.

### **SCHEDULE VII-ADMINISTRATIVE EXPENSES**

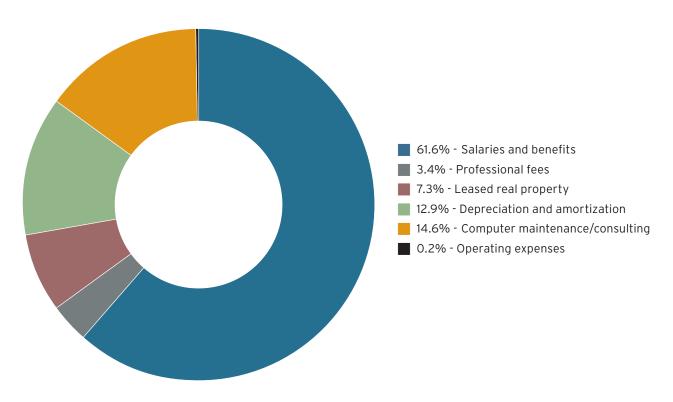
For the fiscal year ended June 30, 2016 (dollars in thousands)

Expense category	Pension Plan	Health Care
Salaries and benefits	\$ 8,440	\$ 226
Professional fees	469	94
Leased real property	1,014	29
Depreciation and amortization	1,796	0
Computer maintenance/consulting	2,030	0
Operating expenses*	21	(244)
Total administrative expenses	\$ 13,770	\$ 105

<sup>\*</sup> Includes overhead, travel, training, supplies and utilities and overhead expenses allocations to the Pension Plan and OPEB Plan.

### **ADMINISTRATIVE EXPENSES BY CATEGORY**

For the fiscal year ended June 30, 2016

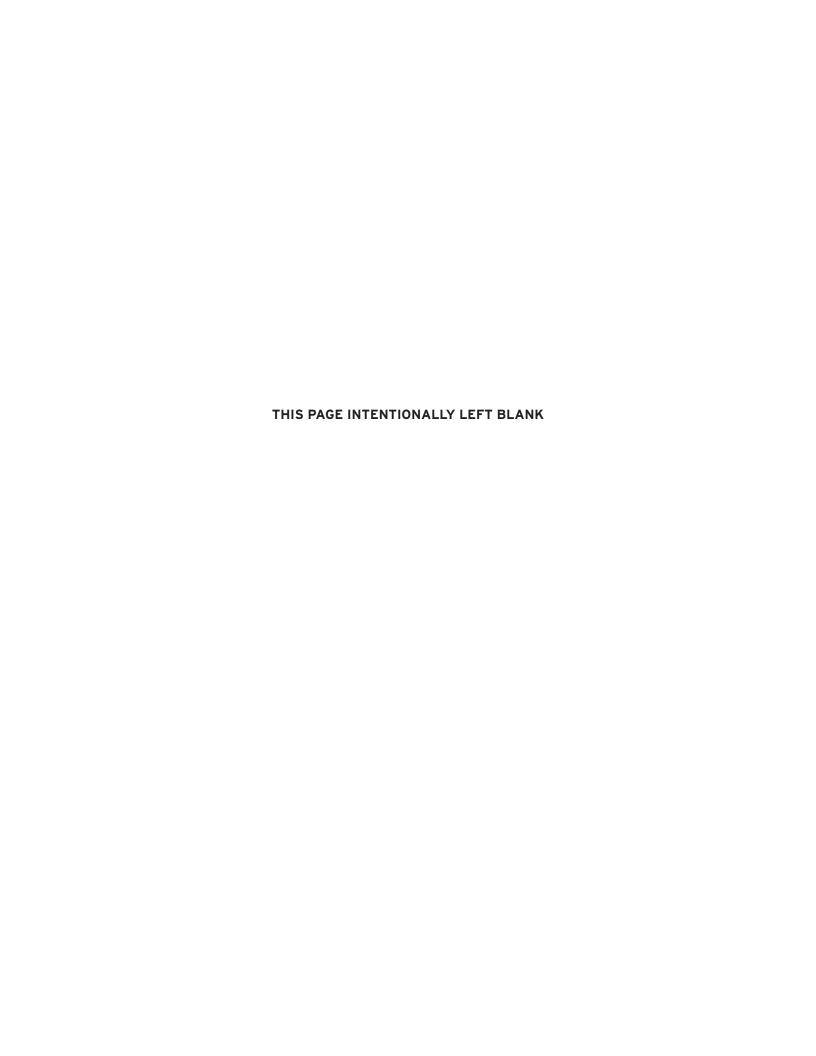


Schedule VIII details payments to consultants in FY 2016.

## **SCHEDULE VIII-PAYMENTS TO CONSULTANTS**

(dollars in thousands)

Type of Service	
Legal services	1,986
Computer services	1,418
Actuarial services	365
Audit services	151
Health care consulting services	91
Total payments to consultants	\$ 4,011



INVESTMENTS



I am pleased to report SDCERA's investment results for the fiscal year ended June 30, 2016 (FY 2016).

FY 2016 was one of slow economic growth, slow employment growth, slower profit growth, and low investment returns. SDCERA's Trust Fund and its benchmark returns reflect these factors. The net return of the Trust Fund was 0.45 percent. For the three, five and ten-year periods ending June 30, 2016, the Trust Fund's annualized returns were 5.38 percent, 5.94 percent and 4.68 percent, respectively. All returns are net of fees.

In Spring 2015, the Board of Retirement (Board) re-established the internal position of Chief Investment Officer and brought oversight of the Trust

Fund back in-house in place of an external portfolio strategist. In August 2015, the SDCERA investment team transitioned the former portfolio strategist's managed portfolio into a carefully-planned mix of more traditional portfolios. This move involved moving more than \$5 billion in assets into index funds, passiveplus funds, and other existing SDCERA investment portfolios. The transition was completed without error and with low transaction costs.

After completing the Trust Fund transition, and after extensive discussion and analysis, the Board adopted a new Investment Policy Statement (IPS) in November 2015. The IPS is SDCERA's key investment document and contains an asset allocation strategy that sets out the Board's approved asset classes, target policy ranges and investment benchmarks. The IPS includes specific goals and limits on risk, return, liquidity and other Trust Fund investment activities. The governing principles in the IPS are transparency, accountability and responsibility. The IPS also confirms that an investment program need not be complex to be successful. SDCERA's simpler yet diversified portfolio has significantly reduced investment management expenses and consulting and staff costs, reducing investment management expenses by more than \$20 million in FY 2016.

With the IPS in place, we undertook a comprehensive RFP process for an Investment General Consultant. In June 2016, the Board selected Aon Hewitt Investment Consulting as our Investment General Consultant. Aon will work for the Board and with investment staff to monitor Trust Fund performance, identify and evaluate investment options for the benefit of the Trust Fund and advise on the annual and triennial IPS and asset allocation reviews.

Looking ahead to FY 2017, we continue to experience low global growth and low interest rates everywhere. In this challenging period, our efforts are focused on the variables we have the most control over: diversification, costs and the alignment of the incentives between the Trust Fund's investment managers and our long-term risk-return goals. Our overall mandate is to diversify against the risk of loss and to maximize return. This we will continue to do.

I am proud of the progress we made in FY 2016, and I look forward to continuing it in the coming years.

Sincerely,

Stephen Sexauer

Chief Investment Officer

Star Sexaur

December 15, 2016

SDCERA's Asset Allocation Policy is as follows:

#### **ASSET ALLOCATION POLICY**

As of June 30, 2016

Asset class	Target %	
Total Public Markets Equity	MSCI ACWI IMI Index	45
Global Equity	MSCI ACWI IMI Index	3
US Equity	MSCI USA IMI Stock Market Index	18
Non-US Equity: Developed	MSCI EAFE IMI Index	15
Non-US Equity: Emerging	MSCI Emerging Markets IMI Index	9
Total Fixed Income	Barclay's US Intermediate Aggregate Index	24

Alternative Beta/Opportunistic/ Other	T-Bills + 500 bps	8
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Total Private Assets	1/3 NCREIF ODCE Index + 50 bps & 2/3 MSCI ACWI IMI + 200 pbs	23
Real Estate	NCREIF ODCE + 50 bps*	9
Private Equity	MSCI ACWI IMI + 200 bps**	8
Private Real Assets	MSCI ACWI IMI +200 bps	6
Total fund		100

<sup>\*</sup> Given the structure of the real estate portfolio, which includes an allocation to non-core investment, a 50 basis points premium has been added to the core index for benchmarking purposes.

## **OVERVIEW OF SDCERA'S INVESTMENT POLICIES**

SDCERA's investment program is managed in accordance with the California Government Code that provides, in part:

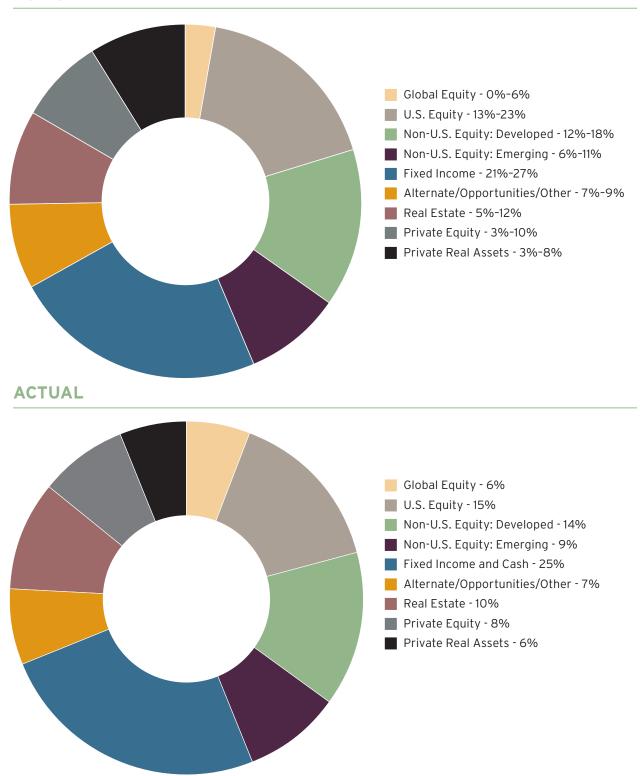
The Board, its officers and employees shall discharge their duties with respect to the system:

- 1. Solely in the interest of, and for the exclusive purposes of providing benefits to, participants and their beneficiaries, minimizing employer contributions thereto, and defraying reasonable expenses of administering the system,
- 2. With the care, skill, prudence and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims, and
- 3. Shall diversify the investments of the system so as to minimize the risk of loss and to maximize the rate of return, unless under the circumstances it is clearly prudent not to do so.

<sup>\*\*</sup>Secondary benchmarks consisting of applicable peer data (vintage year, geography, etc.) and Public Market Equivalent type reference points will be used.

The Board has adopted an Investment Policy Statement (IPS) to ensure that the Trust Fund is managed to the prudent expert standard. The IPS sets investment return and risk objectives for the Trust Fund, and provides for diversification of Trust Fund assets. The IPS also addresses liquidity, securities lending, commission recapture, and proxy voting.

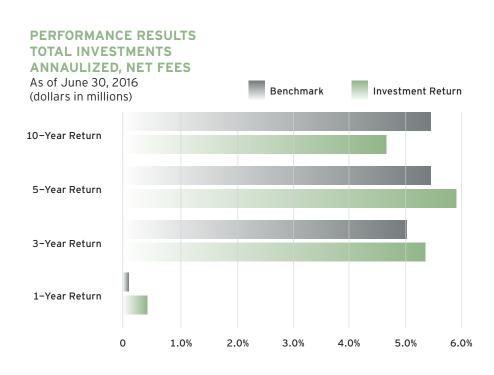
#### **POLICY**



## PERFORMANCE RESULTS, ANNUALIZED, NET OF FEES

For the fiscal year ended June 30

Asset Class (with benchmarks)	1 Year	3 Year	5 Year	10 Year
Global Equity	(2.51)%	7.03%	6.80%	n/a
MSCI All Country World Investable Market Net Index	(3.87)	6.13	5.43	n/a
U.S. Equity	0.01	8.95	8.39	8.82
MSCI USA IMI Net Index	1.60	10.52	10.96	6.95
Non-U.S. Equity: Developed	(9.83)	n/a	n/a	n/a
MSCI EAFE IMI Net	(9.33)	n/a	n/a	n/a
Non-U.S. Equity: Emerging	(12.16)	(1.36)	(3.59)	3.87
MCSI Emerging Markets Investable Market Index Net	(12.05)	(1.56)	(3.78)	3.54
Fixed Income	4.50	2.44	2.36	2.52
Bloomberg Barclay's U.S. Intermediate Aggregate Bond Index	4.36	3.24	2.96	4.66
Alternative Beta/Opportunistic/Other	1.19	5.77	4.60	4.91
Citigroup 3 Month T-Bill + 500bps	5.14	5.07	5.07	6.01
Private Credit	(6.35)	n/a	n/a	n/a
MSCI ACW IMI Net + 200 bps	(1.94)	n/a	n/a	n/a
Real Estate	14.58	13.26	n/a	n/a
NCREIF NFI-ODCE Net + 50 bps	11.40	12.55	n/a	n/a
Private Equity	5.43	11.71	10.82	7.81
MSCI ACW IMI Net + 200 bps	(1.94)	8.25	7.54	6.57
Private Real Assets	(3.54)	2.85	1.28	n/a
MSCI ACW IMI Net + 200 bps	(1.94)	8.25	7.54	n/a
Total Fund	0.45%	5.38%	5.94%	4.68%
Total Fund Benchmark	0.06%	5.05%	5.46%	5.45%



SDCERA Trust Fund equity exposure is attained almost entirely through commingled funds and other equity replication strategies. The table below includes the only nine equity securities held directly by SDCERA.

#### **TOP HOLDINGS-EQUITY**

As of June 30, 2016

Security name	Shares Held	Market Value	
Newell Brands Inc	17,815	\$ 865,275	
Vantage Drilling International	5,814	502,911	
General Motors Company	15,615	441,905	
Quicksilver–Rights	356,591	346,447	
Petroquest Energy Inc	7,925	26,390	
Federal Mogul Corp Company	47,100	21,195	
Beni Stabili SpA SIIQ	1,767	1,119	
Quad/Graphics Inc	27	629	
Dynegy Inc	287	389	

## TOP HOLDINGS-FIXED INCOME

As of June 30, 2016

Security name	Book Value	Market Value
US Treasuries	\$ 261,287,907	\$ 308,437,949
Japan Treasury Discount Bill	257,624,502	283,635,281
Export-Import Bank of Korea	12,171,147	12,166,767
NYKredit Real/Kredit A/S	11,454,887	11,237,195
FNMA GTD Remic	7,428,238	7,440,690
Korea Development Bank	6,138,600	6,136,200
Japan Bank for International	5,983,380	5,938,800
Development Bank of Japan	4,580,778	4,509,932
Citigroup Inc	4,500,000	4,507,380
Macquarie Group Ltd	3,511,710	3,482,490

Note: A complete list of investments is available from SDCERA.

## **COMMISSIONS PAID - DOMESTIC**

For the year ended June 30, 2016

Brokerage Firm	Total Commissions	% of Total Commissions
Goldman Sachs & Co.	\$213,624	57.55%
Credit Suisse	64,852	17.47%
Royal Bank of Canada	53,196	14.33%
UBS Securities LLC	8,765	2.36%
Merrill Lynch Pierce Fenner Inc.	5,689	1.53%
Instinet Corp.	3,940	1.06%
National Financial Services Corp.	2,286	0.62%
Knight Clearing Services LLC	2,126	0.57%
Citigroup Global Markets Inc.	1,887	0.51%
Other *	14,828	4.00%
TOTAL	\$371,193	100.00%

<sup>\*</sup> Includes 19 additional firms, each with 0.38% or less of total commissions

#### **COMMISSIONS PAID - INTERNATIONAL**

For the year ended June 30, 2016

Brokerage Firm	Total Commissions	% of Total Commissions
Goldman Sachs & Co.	\$136,368	77.03%
Credit Suisse	39,265	22.18%
CitiGroup	1,402	0.79%
TOTAL	\$177,035	100.00%

## SUMMARY OF INVESTMENT PORTFOLIO AND INVESTMENT EXPENSES BY ASSET CLASS As of June 30, 2016

Asset Class	Net Assets at Fair Value	Assets as % of Total	Investment Expenses		
Global Equity	\$ 643,898,353	6.3%	\$ 204,265		
US Equity	1,492,345,916	14.5%	3,377,681		
Non-U.S. Equity : Developed	1,451,194,010	14.1%	3,302,195		
Non-U.S. Equity : Emerging	911,861,096	8.9%	2,452,166		
Total Public Markets Equity	4,499,299,375	43.8%	9,336,307		
Total Fixed Income	2,555,162,850	24.9%	4,262,310		
Total Alternative Beta/ Opportunistic/Other	716,158,610	7.0%	9,455,570		
Real Estate	974,996,044	9.5%	16,538,020		
Private Equity	767,726,003	7.5%	13,796,841		
Private Real Assets	648,973,832	6.3%	13,891,190		
Total Private Assets	2,391,695,879	23.3%	44,226,051		
Cash and Other Assets and Liabilities	106,740,916	1.0%	0		
Total Net Assets	\$ 10,269,057,630	100.0%	\$ 67,280,238		
Other Investment Expense:					
Administrative, In–House Staff and Other			\$ 3,665,353		
Custodian Services			781,522		
Consulting Services			1,714,584		
Actuarial Services			365,053		
Total Additional Other Professional Fees			6,526,512		
Total Investment Expenses			\$ 73,806,750		

#### **INVESTMENT MANAGERS**

As of June 30, 2016

#### Global Equity

BlackRock Institutional Trust Company

## **U.S. Equity**

Allianz Global Investors BlackRock Institutional Trust Company Pacific Investment Management Company

## Non-US Equity: Developed

BlackRock Institutional Trust Company Pacific Investment Management Company

#### Non-US Equity: Emerging

BlackRock Institutional Trust Company Dimensional Fund Advisors Genesis Group Pacific Investment Management Company

#### Fixed Income

Bank of New York Mellon BlackRock Institutional Trust Company Hotchkis & Wiley Capital Management Hoisington Investment Management Company Oaktree Capital Management, LP Pacific Investment Management Company

## Alternative Beta/Opportunistic

Allianz Global Investors AQR Capital Management, LLC Brevan Howard Capital Management, LP Cantab Capital Partners D.E. Shaw & Company Silver Point Capital Stark Investments

## **Private Equity**

Apollo Capital Management Bain Capital Baring Private Equity Asia Cerberus Capital Management, LP Charterhouse Capital Partners, LLP Code Hennessy & Simmons Capital Coller Capital D.E . Shaw & Company **DRI** Capital EQT Fund Management, Ltd FountainVest Partners **Graham Partners** Greenbriar Equity Group, LLC HarbourVest Partners, LLC Hellman & Friedman, LLC Horizon Capital Lexington Partners Advisors, LP New Mountain Capital, LLC Northgate Capital Oak Hill Capital Partners

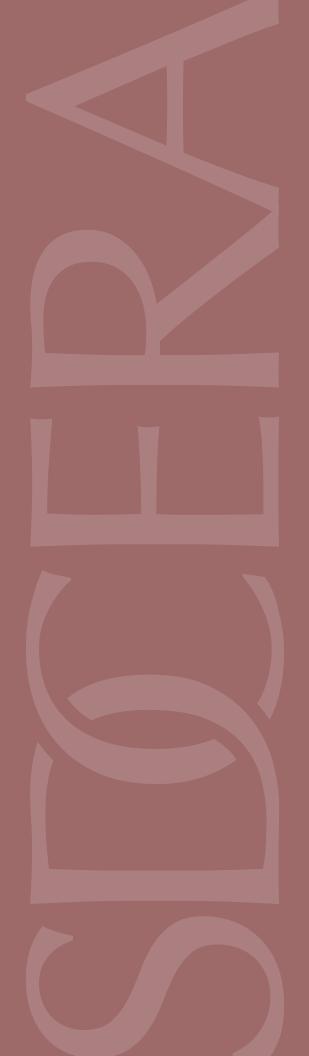
Oaktree Capital Management, LP Onex Capital Paul Capital Providence Equity Partners, LLC SSG Capital Management, Ltd TA Associates The Blackstone Group The Capital Group The Gores Group TPG Capital

#### Private Real Assets

Actis Capital, LLP Amerra Capital Management, LLC Brookfield Asset Management Denham Capital Management, LP EMG AE Permian Co-Investment, LP EMG AENO Co-Investment, LP EnCap Investments, LP EnerVest, Ltd Falcon E&P Opportunities GP, LLC Global Infrastructure Partners Hancock Agricultural Investment Group J.P. Morgan Asset Management Kayne Anderson Capital Advisors, LP Macquarie Infrastructure Partners, Inc Merit Energy Company Molpus Woodland Group RK Capital Management, LLP Taurus Funds Management Pty Ltd The Energy & Minerals Group

#### Real Estate

Ascentris-SD Partners, LP Canyon Partners Real Estate, LLC CB Richard Ellis Investors, LLC Cornerstone Real Estate Advisers J.P. Morgan Asset Management La Salle Investment Management Pacific Coast Capital Partners, LLC Prudential Real Estate Investors RREEF America, LLC The Blackstone Group Trophy Property Development, LP UBS Realty Investors, LLC



ACTUARIAL



100 Montgomery Street Suite 500 San Francisco, CA 94104-4308 T 415.263.8200 www.segalco.com

#### VIA EMAIL AND USPS

November 16, 2016

**Board of Retirement** San Diego County Employees Retirement Association 2275 Rio Bonito Way, Suite 200 San Diego, CA 92108-1685

San Diego County Employees Retirement Association – Re: June 30, 2016 Actuarial Valuation for Funding Purposes

Dear Members of the Board:

Segal Consulting (Segal) prepared the June 30, 2016 annual actuarial valuation of the San Diego County Employees Retirement Association (SDCERA). We certify that the valuation was performed in accordance with generally accepted actuarial principles and practices and SDCERA's funding policy. 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). (With the exception of the inclusion of the liabilities for benefits paid after the Section 415(b) limit was applied to the retirees in pay status and the Supplemental Benefit Allowance, the same assumptions and methods have also been used for financial reporting purposes under Governmental Accounting Standards Board Statement No. 67.)

As part of the June 30, 2016 actuarial valuation, Segal conducted an examination of all participant data for reasonableness. Summaries of the member data used in performing the actuarial valuations over the past several years are provided in our valuation report. We did not audit the Association'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 total return at market value and the expected investment return over 10 six-month interest crediting periods.

One of the general goals of an actuarial valuation is to establish contribution rates that fully fund the Association's liabilities, and that, as a percentage of payroll, remain as level as possible for each generation of active members. 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). Actuarial gains and losses are incorporated into the UAAL.

**Board of Retirement** San Diego County Employees Retirement Association November 16, 2016 Page 2

Effective with the June 30, 2004 valuation, the Association's UAAL has been amortized using 20-year fixed (i.e., decreasing) layered amortization periods. The 20-year period was last reaffirmed when the Board reviewed its actuarial funding policy in 2013. As a result of the review in 2013, effective with the June 30, 2013 valuation, any change in the UAAL that arises due to plan amendments is amortized over separate 15-year decreasing amortization periods. Also, any change in the UAAL that arises due to retirement incentives is amortized over separate decreasing amortization periods of up to 5 years.

Notes number 1, 4 and 9 to the Basic Financial Statements and the Required Supplementary Information (RSI) included in the Financial Section were prepared by the Association based on the results of the Government Accounting Standard (GAS) 67 actuarial valuation as of June 30, 2016 prepared by Segal. A listing of the other supporting schedules Segal prepared for inclusion in the actuarial, statistical and financial sections of the Association's CAFR is provided below. These schedules have been prepared based on the results of the actuarial valuation as of June 30, 2016 for funding purposes.

## **Actuarial Section**

- 1. Schedule of active member valuation data;
- 2. Historical summary of average payroll;
- 3. Retirees and beneficiaries added to and removed from retiree payroll;
- 4. Solvency test;
- 5. Historical summary of actual experience versus assumptions;
- 6. History of employer contribution rates;
- 7. Schedule of funding progress;
- 8. Actuarial Analysis of Financial Experience;

## **Statistical Section**

- 9. Schedule of benefit expenses by type;
- 10. Schedule of retiree members by type of retirement and option selected;
- 11. Average benefit payments (pension plan);
- 12. Schedule of participating employers; and

## **Financial Section**

13. Membership summary

**Board of Retirement** San Diego County Employees Retirement Association November 16, 2016 Page 3

The valuation assumptions included in the Actuarial Section were adopted by the Retirement Board based on the June 30, 2015 Triennial Experience Analysis and became effective with the June 30, 2016 valuation. It is our opinion that the assumptions used in the June 30, 2016 valuation produce results, which, in the aggregate, anticipate the future experience of the Plan. Actuarial valuations are performed on an annual basis. An experience analysis is performed every three years. The next experience analysis for the full review of the economic and noneconomic assumptions will be performed in early 2019, and the assumptions adopted by the Board at that time will be used in setting the contribution rates in the June 30, 2019 valuation. The current 7.25% investment return assumption has not been developed to take into consideration the impact of any future allocations of "excess earnings" as described in the Board's interest crediting and excess earnings policy.

In the June 30, 2016 valuation, the ratio of the valuation assets to actuarial accrued liabilities has decreased from 80.5% to 76.9%. The average employer's rate has increased from 36.50% of payroll to 42.20% of payroll, while the average member's rate has increased from 11.55% of payroll to 12.17% of payroll.

In the June 30, 2016 valuation, the actuarial value of assets included \$777.4 million in deferred investment losses, which represented about 7.6% 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 76.9% to 71.5% and the aggregate employer contribution rate, expressed as a percent of payroll, would increase from 42.20% to 46.79%.

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

Sincerely,

Paul Angelo, FSA, EA, MAAA, FCA

Senior Vice President and Actuary

AW/hy Enclosures Andy Yeung, ASA, EA, MAAA, FCA

Vice President and Actuary



100 Montgomery Street Suite 500 San Francisco, CA 94104-4308 T 415.263.8200 www.segalco.com

VIA E-MAIL and USPS

November 16, 2016

Board of Retirement San Diego County Employees Retirement Association 2275 Rio Bonito Way, Suite 200 San Diego, CA 92108-1685

San Diego County Employees Retirement Association – Re: June 30, 2016 Actuarial Valuation for Health Insurance Allowance

Dear Members of the Board:

Segal Consulting (Segal) performed a biennial actuarial valuation of the Other Postemployment Benefits (OPEB) funded through the San Diego County Employees Retirement Association (SDCERA) Health Insurance Allowance program as of June 30, 2016. We certify that the actuarial valuation was prepared in accordance with generally accepted actuarial principles and practices. In particular, the assumptions and methods used for funding purposes meet with our understanding of the parameters of the Governmental Accounting Standards Board Statements No. 43 and No. 45.

As part of our valuation, Segal conducted an examination of all participant data for reasonableness. We did not audit the Plan's financial statements. For actuarial valuation purposes, plan assets are valued at Market Value.

The Entry Age Cost Method was used to determine the Annual Required Contribution (ARC) and the actuarial accrued liability. Under this method, the ARC provides for current cost (normal cost) plus a level dollar amount to amortize any unfunded actuarial accrued liability (UAAL). The UAAL is amortized over separate declining 20-year level dollar bases starting June 30, 2007 and the equivalent single amortization period as of June 30, 2016 is 10.9 years. The ARC has decreased from 1.78% of payroll in the last valuation as of June 30, 2014 to 1.65% of payroll in the current valuation as of June 30, 2016. The funded ratio has increased from 2.80% in the June 30, 2014 valuation to 4.89% in the June 30, 2016 valuation.

The method described above is used for the purposes of fulfilling the Plan's accounting and funding requirements.

Benefits, Compensation and HR Consulting. Member of The Segal Group. Offices throughout the United States and Canada

Board of Retirement San Diego County Employees Retirement Association November 16, 2016 Page 2

A listing of the supporting OPEB-related schedules Segal prepared to assist with the completion of the Association's CAFR is provided below:

- 1. Schedule of actuarial methods and assumptions;
- 2. Summary of Plan benefits;
- 3. Retirees and beneficiaries added to and removed from retiree payroll;
- 4. Solvency test;
- 5. Average monthly OPEB benefit payments.

The actuarial valuation reflects a long-term perspective that involves estimates of the value of reported amounts and assumptions about the probability of events far into the future. The assumptions used in this valuation were adopted by the Board based on the July 1, 2012 through June 30, 2015 Experience Study dated June 2, 2016. Actuarially determined amounts are subject to continual revision as results are compared to past expectations and new estimates are made about the future.

The valuation was based upon the benefits provided under the terms of the substantive plan in effect at the time of the valuation. The schedules presented in the Actuarial Section have been prepared and/or reviewed by Segal. That valuation and these schedules were completed under the supervision of Thomas Bergman, ASA, EA, MAAA and Dave Bergerson, ASA, EA, MAAA, FCA. They are Members of the American Academy of Actuaries and meet their "General Qualification Standards for Statements of Actuarial Opinion" to render the actuarial opinion contained in the valuation.

Sincerely,

Paul Angelo, FSA, EA, MAAA, FCA

Senior Vice President & Actuary

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

TXB/bqb Enclosure

## **SOLVENCY TEST (PENSION PLAN)**

Last Ten Fiscal Years (dollars in thousands)

	Aggregat	Portion of accrued bilities for covered by reporte				•		
Valuation Date	Active Member Contributions <sup>1</sup>	Liability For Retired Members	Active Members (Employer Financed Portion)	Total	Valuation Value of Assets	Active Member Contributions	Liability For Retired Members	Active Members (Employer Financed Portion)
6/30/07	\$ 316,513	\$ 3,924,551	\$ 3,841,453	\$ 8,082,517	\$7,250,404	100%	100%	78.3%
6/30/08	371,892	4,260,025	4,090,377	8,722,294	8,236,926	100%	100%	88.1%
6/30/09	409,580	4,616,573	4,172,483	9,198,636	8,413,065	100%	100%	81.2%
6/30/10	434,512	5,133,785	4,430,864	9,999,161	8,433,310	100%	100%	64.7%
6/30/11	454,649	5,494,076	4,533,932	10,482,657	8,542,291	100%	100%	57.2%
6/30/12	482,861	6,010,596	4,449,715	10,943,172	8,607,483	100%	100%	47.5%
6/30/13	551,337	6,577,083	4,502,817	11,631,237	9,186,032	100%	100%	45.7%
6/30/14	631,296	6,885,584	4,624,269	12,141,149	9,824,431	100%	100%	49.9%
6/30/15	758,538	7,493,615	4,827,927	13,080,080	10,535,590	100%	100%	47.3%
6/30/16	861,198	8,360,237	5,127,655	14,349,090	11,030,635	100%	100%	35.3%

<sup>&</sup>lt;sup>1</sup> Liabilities for vested deferred members are included in active member contributions.

**Source:** Segal Consulting

## **SOLVENCY TEST (OPEB PLAN)**

(dollars in thousands)

Valuation Date*	Active Member Contributions	Liability For Retired Participants	Liability For Non-Retired Members (Employer Financed Portion)	Total	Valuation Assets	Active Member Contributions	Liability For Retired Participants	Liability For Active Members (Employer Financed Portion)
6/30/07	\$ -	\$219,656	\$16,099	\$235,755	\$ -	0.0%	0.0%	0.0%
6/30/08	_	204,348	13,211	217,559	18,206	0.0%	8.9%	0.0%
6/30/10	_	194,792	11,655	206,447	9,221	0.0%	4.7%	0.0%
6/30/12	-	176,173	9,129	185,302	5,064	0.0%	2.9%	0.0%
6/30/14	_	162,113	7,251	169,364	4,743	0.0%	2.9%	0.0%
6/30/16	_	152,802	6,615	159,417	7,790	0.0%	5.1%	0.0%

<sup>&</sup>lt;sup>1</sup>Valuations are performed biennially after 2008. The next scheduled valuation is June 30, 2018.

**Source:** Segal Consulting, OPEB Actuarial Valuation 6/30/2016.

## HISTORY OF EMPLOYER PENSION CONTRIBUTION RATES

Last Ten Fiscal Years (dollars in thousands)

F 46	General Members			Safety Members			
For the years ended June 30	Normal %	UAAL %	Total %	Normal %	UAAL %	Total %	
2007	12.52	6.18	18.70	18.66	8.89	27.55	
2008	12.46	3.99	16.45	18.77	5.87	24.64	
2009	12.45	6.10	18.55	18.72	8.50	27.22	
2010	13.06	11.05	24.11	20.92	16.25	37.17	
2011	12.87	13.92	26.79	20.86	20.18	41.04	
2012	13.04	17.81	30.85	21.33	24.59	45.92	
2013	13.31	19.96	33.27	20.73	23.34	44.07	
2014	13.34	19.17	32.51	20.40	22.44	42.84	
2015	12.96	20.93	33.89	20.40	24.21	44.61	
2016	13.56	24.65	38.21	21.49	33.12	54.61	

Source: Segal Consulting, Actuarial Valuation and Review

## DEMOGRAPHIC ACTIVITY OF RETIRED MEMBERS AND BENEFICIARIES (PENSION PLAN)

Last Ten Fiscal Years (dollars in thousands)

	Adde	ed to rolls	Remove	d from rolls	Rolls at	end of year	%		
Plan year ended June 30	Number	Annual allowance*	Number	Annual allowance	Number	Annual allowance	Increase in retiree allowance	Average annual allowance	Change in average benefit
2007	802	\$45,430,033	347	\$6,531,337	12,504	\$338,680,164	13.0%	\$27,086	8.9%
2008	844	35,938,031	357	7,173,407	12,991	367,444,788	8.5%	28,285	4.4%
2009	868	38,221,329	406	7,899,309	13,453	397,766,808	8.3%	29,567	4.5%
2010	806	33,675,288	337	7,109,364	13,922	424,332,732	6.7%	30,479	3.1%
2011	996	40,668,972	422	9,718,980	14,496	455,282,724	7.3%	31,407	3.0%
2012	1,082	51,405,845	412	9,370,529	15,166	497,318,040	9.2%	32,792	4.4%
2013	1,077	44,953,478	423	10,603,202	15,820	531,668,316	6.9%	33,607	2.5%
2014	926	40,013,206	373	9,912,670	16,373	561,768,852	5.7%	34,311	2.1%
2015	1,262	49,273,532	449	11,953,676	17,186	599,088,708	6.6%	34,859	1.6%
2016	1,001	45,335,508	453	11,854,880	17,734	630,569,336	5.3%	35,557	2.0%

<sup>\*</sup> Includes automatic cost-of-living adjustments granted on April 1.

Source: Segal Consulting, Actuarial Valuation and Review

## DEMOGRAPHIC ACTIVITY OF RETIRED MEMBERS AND BENEFICIARIES (OPEB PLAN)

(dollars in thousands)

	Adde	d to rolls	Remove	d from rolls	Rolls at	end of year	-		
Plan year ended June 30*	Number	Annual allowance	Number	Annual allowance	Number	Annual allowance	% Increase in retiree allowance	Average annual allowance	Change in average benefit
2007	N/A	N/A	N/A	N/A	6,450	\$22,728,007	N/A	\$3,524	N/A
2008	260	\$1,390,427	391	\$1,362,384	6,319	22,756,050	0.1%	3,601	2.2%
2010	153	1,340,227	515	1,815,192	5,957	22,281,085	(2.1)%	3,740	3.9%
2012	162	449,510	564	2,106,672	5,555	20,623,923	(7.4)%	3,713	(0.7)%
2014	148	896,902	517	2,072,409	5,186	19,448,416	(5.7)%	3,750	1.0%
2016	133	397,523	577	2,353,550	4,742	17,492,119	(10.1)%	3,689	(1.6)%

<sup>\*\*</sup>Valuations are performed biennially after 2008. The next scheduled valuation is 6/30/2018.

Source: Segal Consulting, OPEB Actuarial Valuation June 30, 2016.

#### **FUNDING PROGRESS (PENSION PLAN)**

Last Ten Fiscal Years (dollars in thousands)

Valuation Date	(a) Valuation Assets <sup>(1)</sup>	(b) Actuarial Accrued Liability (AAL) <sup>(2)</sup>	Unfunded AAL (UAAL) (b) – (a)	Funded Ratio (a)/(b)	(c) Annual Covered Payroll	UAAL as % of Annual Covered Payroll [(b)-(a)]/(c)
6/30/07	\$ 7,250,404	\$ 8,082,517	\$ 832,113	89.7	\$ 1,062,396	78.3
		· · · · ·				
6/30/08	8,236,926	8,722,294	485,368	94.4	1,135,432	42.7
6/30/09	8,413,065	9,198,636	785,571	91.5	1,129,171	69.6
6/30/10	8,433,310	9,999,161	1,565,851	84.3	1,095,582	142.9
6/30/11	8,542,291	10,482,657	1,940,366	81.5	1,090,413	177.9
6/30/12	8,607,483	10,943,172	2,335,689	78.7	1,052,366	221.9
6/30/13	9,186,032	11,631,237	2,445,205	79.0	1,067,792	229.0
6/30/14	9,824,431	12,141,149	2,316,718	80.9	1,122,864	206.3
6/30/15	10,535,337	13,080,080	2,544,743	80.5	1,163,363	218.7
6/30/16	11,030,635	14,349,090	3,318,455	76.9	1,206,941	274.9

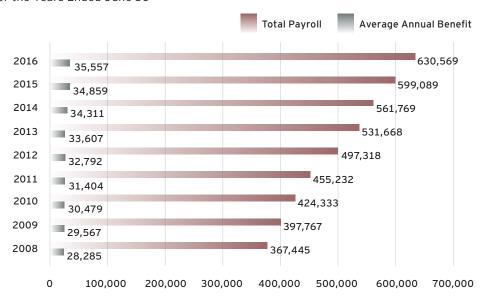
<sup>(1)</sup> Excludes assets for Supplemental Benefit and Health Benefit Reserves.

Source: Segal Consulting, Actuarial Valuation and Review

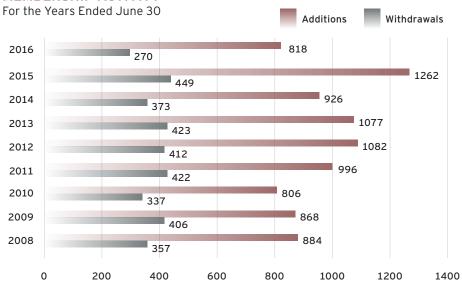
<sup>(2)</sup> Excludes liabilities for Supplemental Benefit and Health Benefit Reserves.

## RETIREMENT PAYROLL AND AVERAGE ANNUAL PENSION BENEFITS

For the Years Ended June 30



#### **MEMBERSHIP ACTIVITY**



## **ACTIVE MEMBERSHIP**

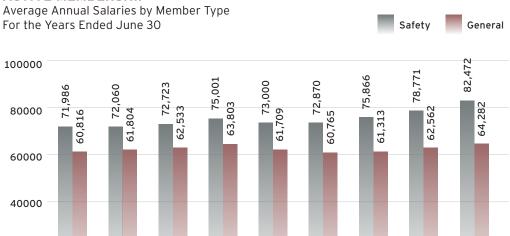
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2008

2009

2010



## Safety **GROWTH IN ACTIVE MEMBERSHIP** For the Years Ended June 30

2011

2012

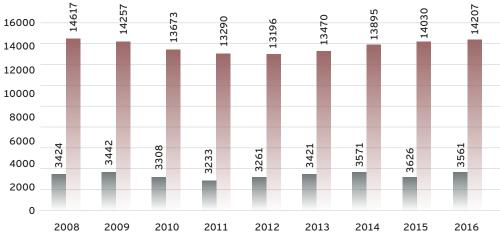
2013

2014

2015

2016

General



Source: The Segal Company, Annual Actuarial Valuation

## **DETERMINATION OF ACTUARIAL AND VALUATION VALUE OF ASSETS**

For the year ended June 30, 2016

Six month	period	Total Actual Market Return	Expected Market Return	Investment	Deferred	
From	То	(Net)	(Net)	Gain/(Loss)	Factor	Deferred Return
6/2012 Com	bined net defe	rred loss*		\$(170,571,295)	0.1111	\$(18,952,366)
7/2012	12/2012	\$595,958,895	\$329,280,436	266,678,459	0.2	53,335,692
1/2013	6/2013	62,787,174	350,146,351	(287,359,177)	0.3	(86,207,753)
7/2013	12/2013	529,642,752	350,592,044	179,050,708	0.4	71,620,283
1/2014	6/2014	678,501,180	369,454,642	309,046,538	0.5	154,523,269
7/2014	12/2014	119,504,895	394,295,090	(274,790,196)	0.6	(164,874,117)
1/2015	6/2015	109,066,220	397,349,983	(288,283,763)	0.7	(201,798,634)
7/2015	12/2015	(191,207,912)	386,704,127	(577,912,039)	0.8	(462,329,632)
1/2016	6/2016	240,985,994	377,344,430	(136,358,436)	0.9	(122,722,592)
1. Total deferred	d return					(777,405,850)
2. Net market v	alue of assets					10,269,057,630
3. Actuarial valu	ue of assets					11,046,463,480
4. Non-valuatio	n reserves				-	
a. Supplemen	ital retirement	reserve				3,045,515
b. 401(h) rese	erve					7,789,709
c. Disability s	c. Disability supplement retirement reserve					
d. Contingend	cy reserve					1,940,530
f. Subtotal					•	15,828,129
5. Valuation val	5. Valuation value of assets (Item 3 - Item 4f)					

<sup>\*</sup> Net deferred loss as of June 30, 2012 was combined and will be recognized over 4.5 years starting July 1, 2012 Source: Segal Consulting, Actuarial Valuation and Review

## **ACTUARIAL ANALYSIS OF FINANCIAL EXPERIENCE (PENSION PLAN)**

Last six years (dollars in thousands)

				Plan years en	ided June 30		
	2016		2015	2014	2013	2012	2011
Prior valuation unfunded actuarial liability	\$ 2,544,743	\$	2,316,718	\$2,445,205	\$2,335,689	\$ 1,940,366	\$ 1,565,851
Salary increase greater (less) than expected	(46,093)		(56,977)	(35,468)	(169,406)	(196,062)	(116,085)
Asset return less (greater) than expected	188,601		(15,862)	(2,155)	19,304	533,655	467,919
Other experience	(140,579)		(19,530)	(90,864)	(4,136)	74,197	22,681
Economic and non-economic assumption changes	771,783		320,394	-	263,754	(16,467)	-
Ending unfunded actuarial accrued liability	\$3,318,455	\$2,	544,743	\$2,316,718	\$2,445,205	\$2,335,689	\$1,940,366

Source: Segal Consulting, Actuarial Valuation and Review

## **ACTUARIAL COST METHODS**

The methods and assumptions used to develop the actuarial valuations for funding purposes and for financial reporting purposes are the same except for one component that goes into development of the investment rate of return assumption. The investment rate of return assumption for funding purposes is 7.25 percent, net of both expected administration and investment expenses. The investment rate of return assumption for financial reporting purposes is 7.25 percent, net of expected investment expense. Both assumptions comply with Actuarial Standards of Practice.

Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using an individual entry-age actuarial cost method having the following characteristics:

- 1. The annual normal costs for each active member, payable from the date of entry into the system to the date of retirement, are sufficient to accumulate the value of the member's benefit at the time of retirement:
- 2. Each annual normal cost is a constant percentage of the member's year-by-year projected covered pay.

The Entry Age Actuarial Cost Method is considered a reasonable funding method under the Actuarial Standards of Practice. This method produces individual Normal Costs that are determined as a level percentage of covered payroll over each member's career and therefore produces a cost that remains as level as possible. The Entry Age Actuarial Cost Method is also considered a model practice by the California Actuarial Advisory Panel.

#### DEFERRED MEMBER ACTUARIAL ACCRUED LIABILITY

Data provided to the actuary about deferred members included date of hire, date of birth, date of termination, years of service credit earned, and highest average salary. Deferred retirement age was estimated based on the data provided. The estimates were used to compute the retirement benefit upon which the liabilities are based.

## **ACTUARIAL ASSUMPTIONS**

The contribution requirements and benefit values of the fund are calculated by applying actuarial assumptions to the benefit provisions and member information furnished using the actuarial cost methods described above.

Benefit provisions are described in detail in Note 1, Description of Plans, in the Financial section of this report.

The principal areas of financial risk that require assumptions about future experience are:

- 1. Long-term rates of investment return to be generated by the assets of the fund;
- 2. Patterns of pay increases to members;
- 3. Rates of mortality among members, retired members and beneficiaries;
- 4. Rates of withdrawal of active members (without entitlement to a retirement benefit);
- 5. Rates of disability among members; and
- 6. Age patterns of actual retirements.

In making a valuation, the monetary effect of each assumption is calculated for as long as a presentlycovered member or beneficiary survives. That period of time can be as long as a century.

Actual experience of the system will not coincide exactly with assumed experience, regardless of the choice of the assumptions, the skill of the actuary and the precision of the calculations made. Each valuation provides a complete recalculation of assumed future experience and takes into account past differences between assumed and actual experience. The latest experience study was done for the period July 1, 2012, through June 30, 2015, and resulting assumptions are reflected in the most recent actuarial valuation. The result is a continual series of adjustments (usually small) to the computed contribution rate. From time to time, it becomes appropriate to modify one or more of the assumptions, to reflect experience trends (but not random year-to-year fluctuations).

The investment return rate used for funding purposes is 7.25 percent, net of both expected administration and investment expenses. The investment return rate used for financial reporting purposes is 7.50 percent, net of only expected investment expenses. This assumption, used to equate the value of payments due at different points in time, is adopted by the Board. The rate is comprised of two elements:

#### COMPONENTS OF INVESTMENT RATE OF RETURN

Inflation	3.00%
Real Rate of Return	4.50%
Total	7.50%

Source: Segal Consulting, Actuarial Valuation and Review

Salary increase rates used to project current pay for those upon which a benefit will be based, were revised in 2016. Rates vary by length of service, and consist of 3.00 percent for inflation plus "across the board" salary increases of 0.50 percent per year plus the merit and longevity increases shown in the table below. When inflation rate is added to the longevity rates (below) the resulting maximum combined rate is 12.00 percent and the minimum combined rate is 4.25 percent.

#### PROJECTED SALARY INCREASE RATES

Years of Service	General	Safety
0	6.75%	8.50%
1	5.00%	6.25%
2	4.50%	5.00%
3	3.50%	4.75%
4	2.50%	4.50%
5	1.50%	2.25%
6	1.40%	1.60%
7	1.30%	1.40%
8	1.20%	1.20%
9	1.10%	1.10%
10	1.00%	1.00%
11	0.95%	1.00%
12	0.90%	1.00%
13	0.85%	1.00%
14	0.80%	1.00%
15+	0.75%	1.00%

Source: Segal Consulting, Actuarial Valuation and Review

## SCHEDULE OF ACTIVE MEMBER VALUATION DATA

Valuation Date	Employees	Total Payroll	% Change	Average Salary	% Change
	Linployees				
06/30/07	17,733	\$ 1,062,396,028	8.5	\$ 59,911	6.8
06/30/08	18,041	1,135,431,988	6.9	62,936	5.0
06/30/09	17,699	1,129,170,721	(0.6)	63,799	1.4
06/30/10	16,981	1,095,581,953	(3.0)	64,518	1.1
06/30/11	16,523	1,090,413,350	(0.5)	65,994	2.3
06/30/12	16,457	1,052,366,941	(3.5)	63,946	(3.1)
06/30/13	16,891	1,067,792,128	1.5	63,217	(1.1)
06/30/14	17,466	1,122,864,480	5.2	64,289	1.7
06/30/15	17,656	1,163,362,748	3.6	65,891	2.5
06/30/16	17,768	1,206,940,234	3.7	67,928	3.1

Source: Segal Consulting, Actuarial Valuation and Review

#### HISTORICAL SUMMARY OF ASSUMPTIONS

For the years ended June 30

Assumption	2016	2015	2014	2013	2012	3 year average	5 year average
Inflation <sup>1</sup>	2.0%	0.8%	2.4%	0.9%	1.7%	1.73%	1.56%
Assumed <sup>2</sup>						3.08	3.20
Average pay increase	3.1	2.5	1.7	(1.1)	(3.1)	2.43	0.62
Assumed <sup>3</sup>						3.75	3.90
Merit and longevity pay increase	1.7	2.6	3.3	3.3	4.7	2.53	3.12
Assumed <sup>4</sup>						0.81	0.85
Total payroll	3.7	3.6	5.2	1.5	(3.5)	4.17	2.10
Assumed <sup>3</sup>						3.75	3.90
Investment return rate 5	5.5	7.7	8.1	7.7	1.7	7.10	6.14
Assumed <sup>6</sup>						7.50	7.65
Real rate of investment return	3.5	6.9	5.7	6.8	0.0	5.37	4.58
Assumed <sup>7</sup>						4.42	4.45
Admin. expenses (% of assets)	0.1	0.1	0.1	0.1	0.1	0.10	0.10
Assumed						0.10	0.10

#### Note:

- (1) Based on Consumer Price Index for San Diego, All items, 1982-84=100, change from June to June, different from the measure used to determine retiree COLA.
- (2) This assumption has remained unchanged at 3.00% since the June 30, 2015 valuation
- (3) Effective with June 30, 2016 valuation, this assumption has been reduced from 3.75% to 3.50%.
- (4) This assumption has remained unchanged at 0.75% for General members and at 1.0% for Safety members since the June 30, 2013 valuation.
- (5) Based on actuarial value of assets, not market value or book value.
- (6) Effective with the June 30, 2016 valuation, this assumption has been decreased from 7.50% to 7.25%.
- (7) Effective with the June 30, 2016 valuation, this assumption has been decreased from 4.50% to 4.25%.

Source: Segal Consulting

Rates of separation from active membership are shown below. This assumption measures the probabilities of members remaining in employment. Starting with the June 30, 1997 valuation, all employees eligible to retire with a vested benefit are assumed to not withdraw accumulated member contributions upon separation from service.

It is also assumed that 20 percent of General members and 30 percent of Safety members separating from active SDCERA membership will continue employment with a reciprocal employer. General reciprocal members are assumed to receive 4.25 percent compensation increases per annum while Safety reciprocal members are assumed to receive 4.50 percent compensation increases per annum.

In September 2015, the Board adopted recommendations from its actuary regarding changes to the assumed rate of return, inflation rate, and wage inflation assumptions. In December 2015, the Board also adopted the actuary's recommendations on changes to the Employer and Employee Contribution Rate, to take effect on July 1, 2016.

#### **DISABILITY RATES**

	Nonservice-Connected Disability		Service-Conne	cted Disability
Age	General Members	Safety Members	General Members	Safety Members
20	0.00%	0.00%	0.00%	0.03%
25	0.00%	0.00%	0.01%	0.08%
30	0.01%	0.00%	0.03%	0.18%
35	0.02%	0.05%	0.04%	0.33%
40	0.05%	0.08%	0.06%	0.52%
45	0.09%	0.08%	0.13%	0.63%
50	0.11%	0.08%	0.17%	1.22%
55	0.14%	0.10%	0.26%	1.84%
60	0.17%	0.12%	0.31%	2.30%
65	0.22%	0.05%	0.23%	2.50%
	<b></b>			

Source: Segal Consulting, Actuarial Valuation and Review

For General Members and all Beneficiaries, the post-retirement mortality table used is the Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional scale MP2016D, set forward one year for females.

For Safety members, the post-retirement mortality table used is the Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional scale MP2016D, set back two years. This assumption is used to measure the probabilities of members dying after retirement and the probabilities of each benefit payment being made after retirement. For members with a disability retirement, there is a five-year age set forward for males and four year set forward for females on postretirement mortality for General members and a one-year age set forward for Safety members. Related values are shown below:

#### **MORTALITY RATES**

Sample	Ger	neral	Sa	afety
ages	Male	Female	Male	Female
25	0.03	0.01	0.03	0.01
30	0.03	0.02	0.03	0.02
35	0.04	0.02	0.04	0.02
40	0.04	0.03	0.04	0.03
45	0.07	0.05	0.07	0.05
50	0.11	0.08	0.11	0.08
55	0.20	0.13	0.20	0.13
60	0.35	0.19	0.35	0.19
65	0.60	0.27	0.60	0.27

Source: Segal Consulting, Actuarial Valuation and Review

#### WITHDRAWAL RATES WITH LESS THAN 5 YEARS OF SERVICE

Verse of	Ordinary withdrawals (Less than 5 year of serv	rice)*
Years of service	General	Safety
0	11.75%	9.00%
1	8.50%	7.00%
2	7.00%	4.00%
3	5.75%	3.00%
4	5.50%	2.90%

<sup>\*65%</sup> of all terminating members will choose a refund of contributions and 35% will choose a deferred vested benefit. Source: Segal Consulting, Actuarial Valuation and Review

## WITHDRAWAL RATES - VESTED TERMINATION WITH 5 OR MORE YEARS OF SERVICE

	Ordinary Withdrawals and Vested*	
Age	General	Safety
20	5.35%	3.30%
25	4.84%	3.12%
30	4.20%	2.40%
35	3.64%	1.76%
40	2.86%	1.24%
45	2.44%	0.88%
50	2.40%	1.04%
55	2.40%	1.08%
60	2.40%	1.00%
65	2.40%	0.40%

<sup>\*20%</sup> of all terminating members will choose a refund of contributions and 80% will choose a deferred vested benefit. Termination rates are zero at ages where members are expected to retire.

Source: Segal Consulting, Actuarial Valuation and Review

#### **RETIREMENT RATES (%)**

		General			Safety	
Age	Tier I and Tier A	Tier B	Tier C	Tier A	Tier B	Tier C
45	-	_	_	2.0	2.0	_
46	_	_	_	2.0	2.0	_
47	_	_	_	2.0	2.0	_
48	_	_	_	3.0	3.0	_
49	65.0	_	_	9.0	3.5	_
50	6.0	_	_	14.0	11.0	14.0
51	4.0	_	_	12.0	11.0	9.5
52	4.0	_	_	11.0	10.0	9.5
53	5.0	_	_	15.0	11.0	9.5
54	6.0	_	_	15.0	12.0	10.5
55	10.0	5.0	4.0	15.0	19.0	16.5
56	10.0	6.0	4.5	18.0	22.0	19.0
57	10.0	7.0	5.5	18.0	20.0	20.0
58	11.0	7.0	5.5	19.0	20.0	20.0
59	15.0	7.0	5.5	20.0	20.0	22.0
60	18.0	9.0	7.0	22.0	22.0	22.0
61	20.0	13.0	10.0	25.0	25.0	25.0
62	23.0	19.0	14.0	25.0	25.0	25.0
63	24.0	19.0	15.0	25.0	25.0	25.0
64	25.0	19.0	15.0	25.0	25.0	25.0
65	31.0	30.0	26.0	50.0	50.0	50.0
66	35.0	30.0	30.0	50.0	50.0	50.0
67	33.0	30.0	30.0	50.0	50.0	50.0
68	32.0	30.0	30.0	50.0	50.0	50.0
69	31.0	30.0	30.0	50.0	50.0	50.0
70	35.0	35.0	35.0	100.0	100.0	100.0
71	35.0	35.0	35.0	100.0	100.0	100.0
72	35.0	35.0	35.0	100.0	100.0	100.0
73	35.0	35.0	35.0	100.0	100.0	100.0
74	40.0	40.0	40.0	100.0	100.0	100.0
75 and later	100.0	100.0	100.0	100.0	100.0	100.0

Source: Segal Consulting, Actuarial Valuation and Review

All or part of the employee contribution rate is subject to potential "pick-up" by the employer. The member rates provided in the census are prior to any applicable pick-up. Such pick-ups and related accumulated interest are not to be refunded to employees at termination. The employer's liability for potential refund is reduced to reflect this.

The rates of employer pick-up vary by employee. Employees with fewer than five years of service have a lesser percentage of their employee contributions "picked up" than employees with five or more years of service.

Survivor benefits: Marital status and spouses' census data were imputed with respect to active and deferred members.

Retirement Age and Benefit for Deferred-vested Members: Marital status: 75 percent of men and 55 percent of women were assumed married at retirement.

Retirement Age and Benefit for Deferred-vested Members: Spouse census: male retirees are 3 years older than their spouses, and female retirees are 2 years younger than their spouses.

A ten year schedule of actuarially determined and actual contributions can be found in the Financial Section, Required Supplemental Information, as Schedule III - Employer Contributions (Pension Plan).



STATISTICAL

## STATISTICAL SECTION OVERVIEW

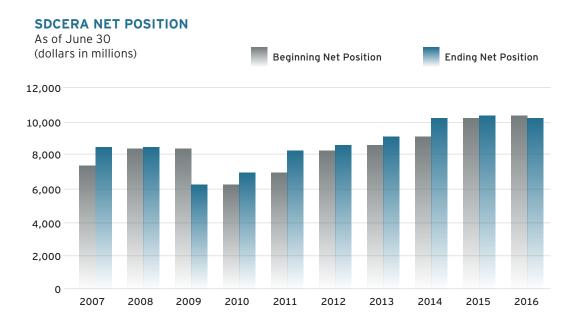
There are four categories included in this section: financial trends, demographic and economic information, expenses, and membership information. The data disclosed in this section provides multi-year trend information that will assist in understanding SDCERA's activities over time.

Financial trend information for the last 10 fiscal years is presented in the Net Position chart, the Changes in Pension Plan Net Position schedule and the Benefit and Refund Deductions from Net Position by Type schedules. The amount of additions from member contributions, employer contributions and investment income from the last 10 years is presented.

Demographic and economic information is shown in the Retired Members by Type schedules and the Average Benefit Payments schedules. The Retired Members by Type of Benefit schedule details the number of retired members receiving benefits by payment level and by type of retirement for the current and prior fiscal years. The Retired Members by Type of Benefit Option Selected schedule provides a matrix of the payment options and beneficiary choices members selected at their retirement, stratified by monthly payment amounts. The Average Benefit Payments schedules (for both the Pension Plan and OPEB Plan) show the number of retired members and the average monthly benefit for the last 10 years for the Pension Plan and last three biennial periods for the OPEB Plan.

Expense information is included in the Changes in Plan Net Position and the Benefit and Refund Deductions from Net Position by Type schedules. Administrative expenses, refunds and benefit payments of the Fund for the last 10 years are set out in detail.

Membership information is shown on the Schedule of Participating Employers. This Schedule shows the number of covered members by employer for the last 10 years.



## **CHANGES IN PENSION PLAN NET POSITION\***

For the fiscal year ended June 30 (dollars in millions)

		2007	2008	2009	2010		2011	2012	2013		2014	2	015	2016
ADDITIONS														
Member Contributions <sup>(1)</sup>	\$	44.5	\$ 45.5	\$ 49.5	\$ 46.4	\$	44.0	\$ 59.8	\$ 71.7	\$	78.9	\$ 9	98.6	\$ 104.6
Employer Contributions <sup>(2)</sup>		320.5	329.0	314.5	276.7		321.8	334.8	357.9		394.7	4	14.8	405.6
Investment Income (Loss) (Net of expenses)		1119.3	(4.8)	(2,143.9)	830.8		1,437.0	454.6	669.9		1,220.4	24	12.5	63.6
Total Additions	\$1	1,484.3	\$369.7	(1,779.9)	\$ 1,153.9	\$1	1,802.8	\$849.2	\$ 1,099.5	\$1	,694.0	\$75	5.9	\$573.8
DEDUCTIONS														
Administrative Expenses	\$	10.3	\$ 10.5	\$ 10.1	\$ 10.4	\$	10.5	\$ 10.9	\$ 11.4	\$	12.7	\$	14.0	\$13.8
Retirement Benefits <sup>(1) (3)</sup>		322.6	368.6	399.9	431.1		461.6	496.3	540.5	\$	558.0	\$ 58	39.7	\$ 625.5
Health Benefits		35.3	24.4	23.9	23.6		21.8	-	-		-		-	-
Health Deffettts							3.1	3.4	2.8		2.8		2.6	3.6
Refunds		2.6	2.7	2.3	2.6		٥.١	5.4	2.0				2.0	5.0

\$ 1,113.5 \$(36.5) \$(2,216.1) \$ 686.2 \$1,305.8 \$338.6 \$ 544.8 \$1,120.5

## **CHANGES IN OPEB NET POSITION**

For the fiscal year ended June 30 (dollars in millions)

in Pension Plan

Net Position

	2012	2013	2014	2015	2016
Additions					
Employer Contributions	19.2	19.0	20.2	21.0	19.7
Investment Income (Net of expenses)	0.2	0.3	0.5	0.1	0.0
Total additions	\$ 19.4	\$ 19.3	\$ 20.7	\$ 21.1	\$ 19.7
Deductions					
Administrative Expenses	\$ 0.2	\$ -	\$ -	\$-	\$0.1
Health Benefits	21.3	20.4	20.0	19.3	18.4
Total deductions	\$ 21.5	\$ 20.4	\$ 20.0	\$ 19.3	\$ 18.5
Total change in OPEB Plan Net Position	\$ (2.1)	\$ (1.1)	\$ 0.7	\$ 1.8	\$ 1.2

\$ 149.6

\$ (69.1)

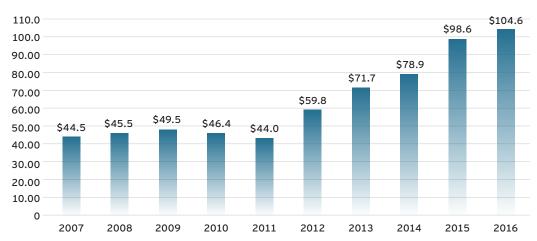
<sup>\*</sup> Prior to 2012, health care net position is included in this chart

<sup>(1)</sup> Enhancement of Plan benefits in March 2002 resulted in an increase in member contribution and benefit payments. (2) Includes proceeds from pension obligation bonds of \$550 million in 2003 and \$450 million in 2004.

<sup>(3)</sup> Refer to benefit and refund deductions for detail.

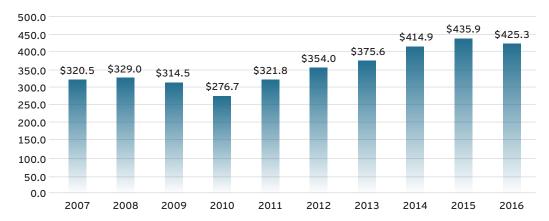
#### **MEMBER CONTRIBUTIONS**

For the fiscal year ended June 30 (dollars in millions)



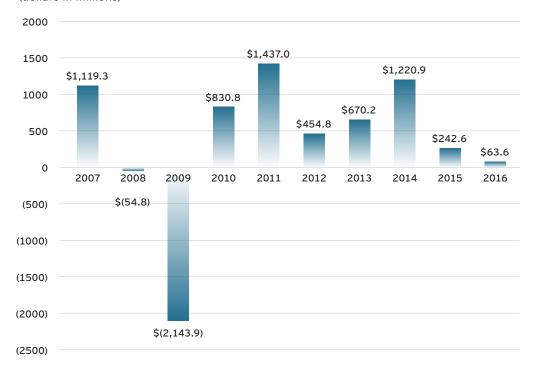
#### **EMPLOYER CONTRIBUTIONS**

For the fiscal year ended June 30 (dollars in millions)



#### **INVESTMENT INCOME (LOSS)**

For the fiscal year ended June 30 (dollars in millions)



## **ADDITIONS TO PLAN NET POSITION BY SOURCE**

## BENEFIT AND REFUND DEDUCTIONS FROM NET POSITION BY TYPE

For the last 10 fiscal years ended June 30 (dollars in millions)

Type of benefit	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Age and service	\$295.3	\$ 301.8	\$ 310.8	\$ 357.5	\$386.8	\$ 418.0	\$ 456.0	\$ 470.3	\$ 490.1	\$ 520.6
Disability - Duty	12.0	16.9	37.7	41.4	42.8	45.1	48.0	49.1	49.8	51.9
Disability - Non-duty	28.7	26.9	5.6	6.2	5.9	6.1	6.3	6.6	6.3	6.3
Death benefits	1.6	0.9	1.8	1.4	1.2	1.6	1.3	1.5	1.2	1.6
Survivors	20.3	22.0	24.0	24.5	24.8	25.5	28.9	30.5	42.3	45.0
Total	\$357.9	\$368.5	\$379.9	\$431.0	\$461.5	\$496.3	\$540.5	\$558.0	\$589.7	\$625.4
Type of refund										
Separation	2.6	2.7	2.3	2.6	3.1	3.4	2.8	2.7	2.6	3.6
Total	\$ 2.6	\$ 2.7	\$ 2.3	\$ 2.6	\$ 3.1	\$ 3.4	\$ 2.8	\$ 2.7	\$ 2.6	\$ 3.6

## **RETIRED MEMBERS BY TYPE OF BENEFIT**

Fiscal year 2016		Type of retirement*							
Amount of Monthly Benefit	Number of Retired Members	1	2	3	4	5	6		
\$0 - \$1,000	3,534	2,729	416	190	14	55	130		
1,001 - 2,000	4,424	3,271	421	133	283	197	119		
2,001 - 3,000	3,205	2,378	240	59	407	53	68		
3,001 - 4,000	2,248	1,647	101	18	403	15	64		
4,001 - 5,000	1,332	1,140	62	10	100	6	14		
5,001 - 6,000	910	828	32	3	39	2	6		
6,001 - 7,000	708	652	12	-	39	1	4		
7,001 - 8,000	491	454	8	1	28	-	-		
8,001 - 9,000	331	314	3	-	14	-	-		
9,001 - 10,000	187	174	2	-	10	-	1		
Over 10,000	364	347	1	-	14	-	2		
Total	17,734	13,934	1,298	414	1,351	329	408		

## **RETIRED MEMBERS BY TYPE OF BENEFIT**

Fiscal Year 2015				Type Of Re	tirement*		
Amount Of Monthly Benefit	Number Of Retired Members	1	2	3	4	5	6
\$0 - \$1,000	3,536	2,710	425	182	10	68	141
1,001 - 2,000	4,372	3,219	415	118	297	194	129
2,001 - 3,000	3,107	2,280	221	54	433	47	72
3,001 - 4,000	2,113	1,552	91	19	376	17	58
4,001 - 5,000	1,248	1,090	55	6	83	4	10
5,001 - 6,000	870	785	31	4	41	4	5
6,001 - 7,000	667	615	12	-	35	1	4
7,001 - 8,000	464	431	5	1	27	-	-
8,001 - 9,000	304	289	3	-	12	-	-
9,001 - 10,000	175	162	2	-	9	-	2
Over 10,000	330	314	1	-	15	-	-
Total	17,186	13,447	1,261	384	1,338	335	421

<sup>\*</sup>Type of Retirement:

Source: Segal Consulting, Annual Actuarial Valuation

Note: Above amounts are number of benefits paid. Some payees receive multiple benefits, ie., Retiree and surviving spouse.

<sup>1 -</sup> Normal/Early Retirement for age and service

<sup>2 -</sup> Beneficiary payment - Surviving spouse

<sup>3 -</sup> Beneficiary payment - Non spouse survivor

<sup>4 -</sup> Service Connected Disability Retirement

<sup>5 -</sup> Non-service Connected Disability Retirement

<sup>6 -</sup> Beneficiary payment - Disability

#### RETIRED MEMBERS BY TYPE OF BENEFIT OPTION SELECTED

Fiscal Year 2016								
				Opt	ion Selec	ted*		
Amount Of Monthly Benefit	Number of Retirees and Beneficiaries	Unmodified	1	2	3	4	Death - Minor Child Supplement	Lump-Sum Installment
\$0 - \$1,000	3,534	3,320	52	156	2	3	_	1
1,001 - 2,000	4,424	4,235	63	112	4	9	-	1
2,001 - 3,000	3,205	3,079	41	69	3	13	_	_
3,001 - 4,000	2,248	2,160	29	49	1	8	_	1
4,001 - 5,000	1,332	1,278	16	27	2	9	-	_
5,001 - 6,000	910	873	11	21	-	5	_	_
6,001 - 7,000	708	687	7	14	_	-	_	_
7,001 - 8,000	491	474	6	7	1	3	_	_
8,001 - 9,000	331	321	3	4	1	2	_	_
9,001 - 10,000	187	184	2	1	-	-	-	_
Over 10,000	364	357	1	3	-	3	_	_
Total	17,734	16,968	231	463	14	55	-	3

#### RETIRED MEMBERS BY TYPE OF BENEFIT OPTION SELECTED

Fiscal Year 2015									
		Option Selected*							
Amount Of Monthly Benefit	Number of Retirees and Beneficiaries	Unmodified	1	2	3	4	Death - Minor Child Supplement	Lump-Sum Installment	
\$0 - \$1,000	3,536	3,328	53	149	2	3	-	1	
1,001 - 2,000	4,372	4,192	61	105	4	9	-	1	
2,001 - 3,000	3,107	2,995	41	60	3	8	-	-	
3,001 - 4,000	2,113	2,028	30	45	1	8	-	1	
4,001 - 5,000	1,248	1,198	14	26	2	8	-	-	
5,001 - 6,000	870	837	13	15	-	5	-	-	
6,001 - 7,000	667	645	9	13	-	-	-	-	
7,001 - 8,000	464	449	4	6	1	4	-	-	
8,001 - 9,000	304	297	2	3	1	1	-	-	
9,001 - 10,000	175	170	2	2	-	1	-	-	
Over 10,000	330	325	-	2	-	3	-	-	
Total	17,186	16,464	229	426	14	50	-	3	

<sup>\*</sup>Option Selected:

Unmodified plan: beneficiary receives 60 percent continuance. (100 percent continuance for service-connected disability)

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

Option 1 - Beneficiary receives lump sum of member's unused contributions

Option 2 - Beneficiary receives 100 percent of member's reduced monthly benefit

Option 3 - Beneficiary receives 50 percent of member's reduced monthly benefit

Option 4 - Split account paid to ex-spouse of member.

Death-Minor Child Supplement - Paid to minor child of deceased member with no surviving spouse.

Lump sum installment - Death benefit paid in installments.

Source: The Segal Company, Annual Actuarial Valuation

Note: Above amounts are number of benefits paid. Some payees receive multiple benefits, ie., Retiree and surviving spouse.

## **AVERAGE BENEFIT PAYMENTS (PENSION PLAN)**

For fiscal year ended June 30

Retirement Effective	0-5	5-10	Years o	f Credited :	Service 20-25	25-30	30+
2016	0.5	3 10	10 15	15 20	20 25	25 50	301
Average annual benefit	\$7,845	\$12,054	\$21,110	\$35,637	\$43,210	\$62,040	\$78,949
Average monthly benefit	\$654	\$1,005	\$1,759	\$2,970	\$3,601	\$5,170	\$6,579
Average final monthly salary	\$7,067	\$5,076	\$5,238	\$5,984	\$5,865	\$6,538	\$7,000
Number of retired members	26	133	163	162	124	136	97
2015		100	100	102		100	71
Average annual benefit	\$15,796	\$12,134	\$22,655	\$36,351	\$48,394	\$67,321	\$80,473
Average monthly benefit	\$1,316	\$1,011	\$1,888	\$3,029	\$4,033	\$5,610	\$6,706
Average final monthly salary	\$7,434	\$5,024	\$5,477	\$6,025	\$6,538	\$6,784	\$7,284
Number of retired members	36	139	182	134	112	154	92
2014		139	102	134	112	134	72
Average annual benefit	\$8,743	\$10,779	\$21,114	\$34,509	\$43,163	\$66,107	\$77,237
Average monthly benefit	\$729	\$898	\$1,759	\$2,876	\$43,103	\$5,509	\$6,436
Average final monthly salary	\$5,972	\$4,439	\$4,985	\$5,721	\$5,650	\$6,922	\$6,760
Number of retired members	40	127	207	107	122	115	78
2013		121	201	107	122	113	10
Average annual benefit	\$9,841	\$12,071	\$20,662	\$32,694	\$50,152	\$66,810	\$82,334
Average monthly benefit	\$820	\$1,006	\$1,722	\$2,725	\$4,179	\$5,568	\$6,861
Average final monthly salary	\$7,418	\$4,639	\$5,046	\$5,498	\$6,413	\$7,028	\$7,099
Number of retired members	46	155	252	141	160	121	84
2012							
Average annual benefit	\$12,316	\$12,473	\$21,098	\$32,172	\$48,805	\$62,542	\$80,469
Average monthly benefit	\$1,026	\$1,039	\$1,758	\$2,681	\$4,067	\$5,212	\$6,706
Average final monthly salary	\$9,243	\$4,920	\$5,066	\$5,123	\$6,137	\$6,409	\$6,856
Number of retired members	35	132	234	139	198	108	120
2011							
Average annual benefit	\$9,976	\$11,658	\$20,806	\$30,700	\$46,065	\$58,157	\$75,885
Average monthly benefit	\$831	\$972	\$1,734	\$2,558	\$3,839	\$4,846	\$6,324
Average final monthly salary	\$7,175	\$4,631	\$4,928	\$5,265	\$6,037	\$5,991	\$6,676
Number of retired members	40	146	209	118	185	82	104
2010							
Average annual benefit	\$8,472	\$10,745	\$20,486	\$31,420	\$45,480	\$58,630	\$78,128
Average monthly benefit	\$706	\$895	\$1,707	\$2,618	\$6,790	\$4,886	\$6,511
Average final monthly salary	\$6,342	\$4,149	\$5,833	\$5,864	\$6,656	\$10,678	\$6,992
Number of retired members	16	144	153	105	152	67	83
2009							
Average monthly benefit	\$841	\$1,046	\$1,576	\$2,636	\$3,496	\$5,323	\$6,720
Average final monthly salary	\$5,263	\$4,514	\$4,571	\$4,829	\$5,367	\$6,423	\$6,883
Number of retired members	32	107	150	120	107	83	87
2008	40.0	4.00=	4. =0.	40.400	40.400	*	*
Average monthly benefit	\$868	\$1,025	\$1,731	\$2,602	\$3,422	\$4,931	\$6,198
Average final monthly salary	\$4,944	\$4,348	\$4,440	\$5,010	\$5,653	\$6,353	\$6,356
Number of retired members	14	94	156	161	102	95	75
2007	¢740	ÇOEO	¢1756	\$2.200	\$2.207	\$4.404	¢6 221
Average monthly benefit	\$749	\$958	\$1,756	\$2,380	\$3,307	\$4,494	\$6,331
Average final monthly salary	\$6,918	\$4,774	\$4,738	\$4,800	\$5,110	\$6,043	\$6,611
Number of retired members	27	83	145	143	99	94	85

Source: Segal Consulting

## **AVERAGE BENEFIT PAYMENTS (OPEB)**

For the fiscal year ended June 30

	Health Insurance Reimbursement	Medical Payments	Medicare Part B
2016			
Average monthly benefit	\$ 197	\$ 265	\$ 94
Number of retired members	918	3,375	4,050
2014			
Average monthly benefit	\$ 199	\$ 267	\$ 93
Number of retired members	1,040	3,637	4,430
2012			
Average monthly benefit	\$ 196	\$ 243	\$ 93
Number of retired members	1,148	4,331	4,657
2010			
Average monthly benefit	\$ 191	\$ 249	\$ 93
Number of retired members	1,341	4,924	5,164

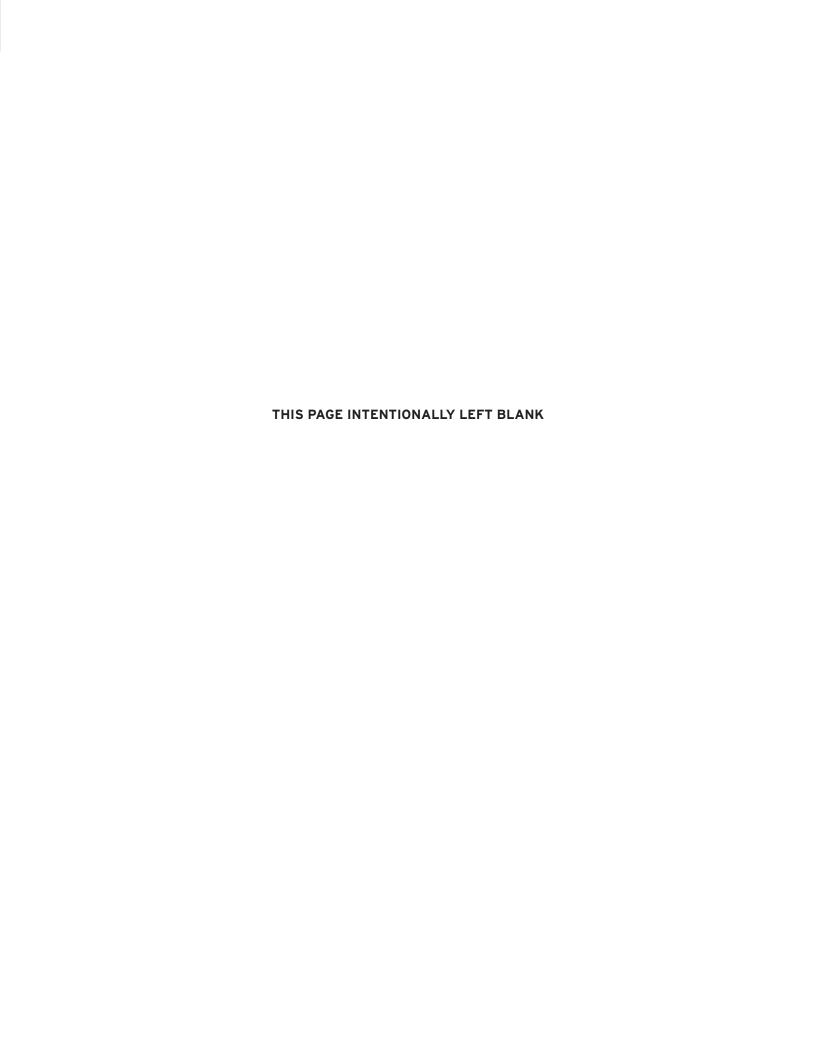
Source: Segal Consulting, OPEB Actuarial Valuation reports.

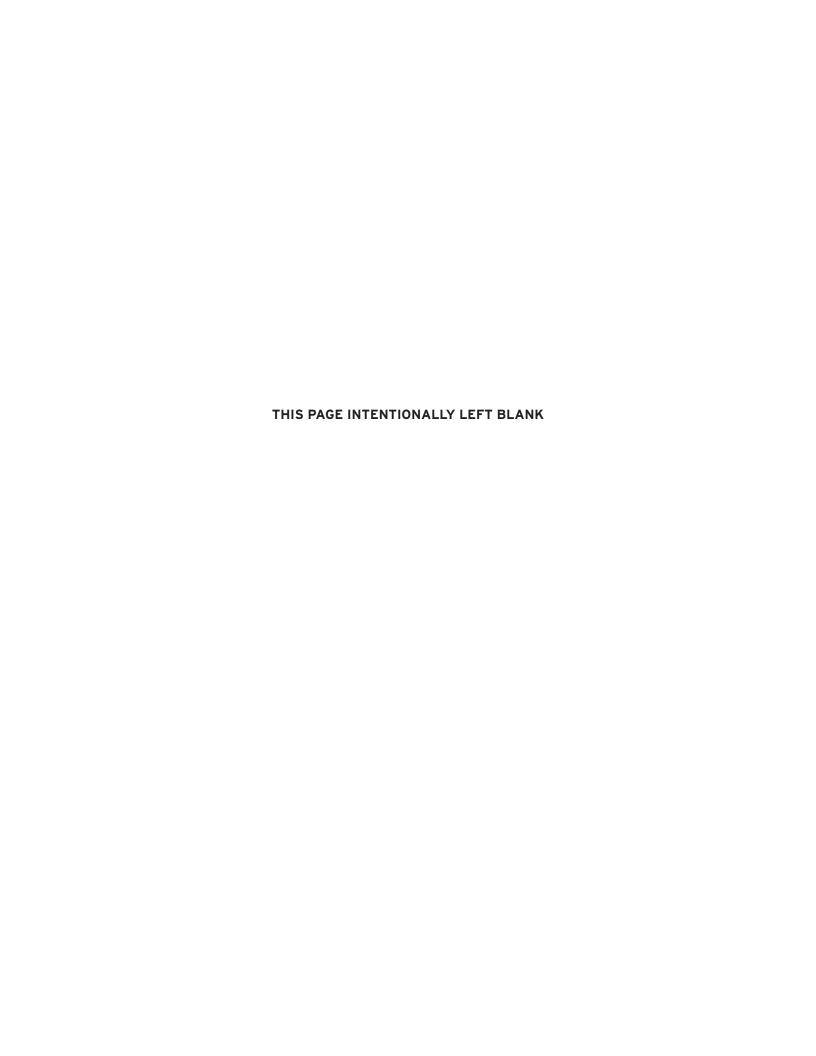
## **SCHEDULE OF PARTICIPATING EMPLOYERS**

For the fiscal year ended June 30

	Total	County of San Diego	Superior Court	San Dieguito River Valley Joint Powers Authority	Local Agency Formation Commission	San Diego County Office of Education
2016						
Number of covered employees	40,915	38,403	2,461	25	15	11
Percentage to total system	100.00%	93.86	6.01	0.06	0.04	0.03
Rank		1	2	3	4	5
2015						
Number of covered employees	40,116	37,513	2,552	26	14	11
Percentage to total system	100.00%	93.52	6.36	0.06	0.03	0.03
Rank		1	2	3	4	5
2014						
Number of covered employees	38,930	36,435	2,444	25	13	13
Percentage to total system	100.00%	93.59	6.28	0.07	0.03	0.03
Rank		1	2	3	4	5
2013						
Number of covered employees	37,711	36,017	1,653	19	13	9
Percentage to total system	100.00%	95.51	4.38	0.05	0.03	0.02
Rank		1	2	3	4	5
2012						
Number of covered employees	36,662	34,882	1,740	18	13	9
Percentage to total system	100.00%	95.14	4.75	0.05	0.04	0.02
Rank		1	2	3	4	5
2011						
Number of covered employees	36,144	33,631	2,464	22	14	13
Percentage to total system	100.00%	93.05	6.82	0.06	0.04	0.04
Rank		1	2	3	4	5
2010						
Number of covered employees	36,157	33,582	2,514	22	15	24
Percentage to total system	100.00%	92.88	6.95	0.06	0.04	0.07
Rank		1	2	4	5	3
2009						
Number of covered employees	36,447	33,850	2,539	20	13	25
Percentage to total system	100.00%	92.87	6.97	0.05	0.04	0.07
Rank		1	2	4	5	3
2008						
Number of covered employees	36,179	33,538	2,587	17	13	24
Percentage to total system	100.00%	92.70	7.15	0.05	0.03	0.07
Rank		1	2	4	5	3
2007						
Number of covered employees	35,249	32,830	2,365	20	12	22
Percentage to total system	100.00%	93.14	6.71	0.06	0.03	0.06
Rank		1	2	4	5	3

Source: Segal Consulting





# SECERA

Strength. Service. Commitment.

San Diego County Employees Retirement Association San Diego County, CA

2275 Rio Bonito Way, Suite 200 San Diego, CA 92108

Member Service Center: 619.515.6800 or 888.4.SDCERA

