



2017

Comprehensive Annual Financial Report A Multiple-Employer Pension Trust Fund

A Multiple-Employer Pension Trust Fund San Bernardino, California

For the Years Ended June 30, 2017 and 2016





2017

Comprehensive Annual Financial Report

A Multiple-Employer Pension Trust Fund San Bernardino, California

For the Years Ended June 30, 2017 and 2016

Louis Fiorino Managing Trustee

Christie L. Porter, CEBS, PMP Chief Operating Officer

> Julie Underwood, CPA Chief Financial Officer



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Mission Statement

San Bernardino County Employees' Retirement Association

It is the mission of the San Bernardino County Employees' Retirement Association (SBCERA) to provide the members and their beneficiaries with those retirement and related benefits and services which they have earned and which are commensurate with their years of service and compensation.

It is the responsibility of those charged with administration of SBCERA to:

- (a) effectively collect contributions to fund liabilities incurred,
- (b) diversify the investments of the system so as to minimize the risk of loss and to maximize the rate of return,
- (c) administer the benefits impartially, fairly and in accordance with the applicable law,
- (d) deliver service to the membership in an accurate, courteous, prompt, professional and cost-efficient manner,
- (e) minimize employer contributions, and
- (f) strategically plan for the future.





San Bernardino County Employees' Retirement Association

Most Valuable Plan

Section **1.0**

Section 1.0

(Unaudited)

MVP

As a cherished pastime, baseball has brought value to the lives of many, and has served as a source of stability through the ups and downs of surrounding events. Seemingly heroic home runs, dazzling throws and the visual charm of immaculately-kept fields hold an important place in American tradition.

Value and stability have also been a hallmark of SBCERA's story. Since 1945, SBCERA has been recognized as an award-winning defined benefit plan, proudly providing the very best in retirement plan administration. During the past 72 years of San Bernardino County history, through economic booms and recessions, SBCERA has created value for the County, its participating employers, and has provided stability for the tens of thousands of members we have served.

> As SBCERA celebrates an MVP year of achieving value and strong performance for its participating employers and members, we take time in this year's CAFR to celebrate individual MVPs from the communities we serve. San Bernardino County has been home to a talented pool of Major League Baseball players, many of whom won distinguished awards at the highest level of their profession.

Moneyball:

In 2016, Major League Baseball generated \$9.5 billion in revenue, with a total paid attendance of 73.16 million people.¹

(1) Brown, Maury. (2016, October). Forbes.com.

THE REAL PROPERTY.

Sluable Plan



San Bernardino County Employees' Retirement Association

November 28, 2017

Board of Retirement San Bernardino County Employees' Retirement Association 348 West Hospitality Lane, Third Floor San Bernardino, CA 92415-0014

Dear Board Members:

It is with great honor that we present the San Bernardino County Employees' Retirement Association (SBCERA) Comprehensive Annual Financial Report (CAFR) for the years ended June 30, 2017 and 2016. This report is created annually to provide a detailed comparative overview of the SBCERA Plan (the Plan) and its trust fund's financial, actuarial, and investment-related activities.

This year's CAFR theme, "Most Valuable Plan," celebrates a banner year at SBCERA. The investment performance and organizational achievements of the past year are among the most significant in SBCERA's history, and have led to numerous recognitions and awards. As we proudly continue to provide the very best in retirement plan administration, this year's CAFR also pays tribute to local Most Valuable Players (MVPs) by highlighting Major League Baseball (MLB) success stories with roots in San Bernardino County.

Continuing our baseball analogy, the CAFR also features economic facts and figures about MLB entitled "Moneyball" – a reference to the famous strategy of using advanced analytics to identify and sign players of good value. At SBCERA, we also carefully select value-based investments to provide consistent returns for the Plan. Thanks to a successful season of this investment strategy, we continue to improve our ability to provide benefits for ongoing generations of SBCERA's members and their beneficiaries.

Established in 1945, SBCERA proudly celebrates its 72nd year in operation by reaching an all-time high in assets under management. Formed by the will of San Bernardino County voters on May 16, 1944, SBCERA now administers service retirement, disability, death, and survivor benefits for 38,836 members, serves 17 active participating employers, and manages \$9.29 billion in assets. A listing of participating employers, as of June 30, 2017, can be found on page 150.

The information contained in this CAFR is designed to provide a complete and accurate review of the year's operations. SBCERA's management is responsible for the accuracy of the data, as well as the completeness and fairness of the presentation of the financial information, including all disclosures. We encourage you to review Management's Discussion and Analysis beginning on page 20, which provides a narrative introduction, overview, and analysis of SBCERA's financial operations for the years ended June 30, 2017 and 2016.

As you read the 2017 CAFR, we trust you, as well as the members and their beneficiaries of SBCERA, and our participating employers, will appreciate the fortitude of staff in developing the detailed report, and will find the content helpful in understanding the strength and stability of SBCERA's defined benefit Plan.

(Continued)

Major Initiatives

Participating Employer Cost Group Transfers

In 2017, the Board of Retirement (Board) approved agreements between SBCERA and two participating employers, Barstow Fire Protection District and the City of Big Bear Lake, to transfer, for actuarial purposes, from the Other Safety cost group into the San Bernardino County (County) Safety cost group. These transfers, which in exchange require additional contribution payments to be made to SBCERA over a 20-year period, eliminate what would have otherwise been a significant increase in employer and member contributions due to the small size of the Other Safety cost group. Thanks to coordination with these employers, the County, and SBCERA staff, these employers and their Safety members can expect more stable rates going forward, while preventing any increase in the unfunded actuarial accrued liability of the existing County Safety cost group.

Updates to Disability Procedures

Working in unison, the Board, Legal Services, and Member Services departments approved and implemented updated rules for the disability retirement process, which are now codified as *Procedures for SBCERA Disability Retirement Applications and Formal Hearings*. Among a number of important changes, the new procedures provide greater clarity regarding timeliness of applications, the scope of medical records applicants may be required to submit, and the streamlined reconsideration process for applicants who have been denied.

Member Education and Communications

SBCERA continues to provide increased communication channels for members to access important information about their benefit options. The Board approved SBCERA's three-year *Communications Plan* that sets forth a series of integrated communication strategies and tactics. As part of the approved plan, SBCERA has launched *Live Chat* on its website, which allows members to submit online questions and receive real-time answers from an SBCERA representative. Additionally, to provide easily accessible and customized educational content for members, SBCERA began hosting *Coffee Break* – a series of 15-minute online webinars that allow members to receive information on particular topics and have questions answered in real-time.

(Continued)

Financial Information

Management of SBCERA is responsible for establishing and maintaining an internal control structure designed to ensure SBCERA's assets are protected from loss, theft, or misuse. Responsibility for the accuracy, completeness, fair presentation of information, and all disclosures rests with SBCERA's management. Macias Gini and O'Connell LLP (MGO), a certified public accounting firm, provides financial statement independent audit services to SBCERA. The financial statement audit provides reasonable assurance that SBCERA's Basic Financial Statements are presented in conformity with accounting principles generally accepted in the United States (GAAP) and are free from material misstatement. Limited audit procedures on internal controls have been performed by MGO on SBCERA's operating policies and procedures. SBCERA recognizes even sound internal controls have inherent limitations. SBCERA's internal controls are designed to provide reasonable, but not absolute, assurance these objectives are met. The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits likely to be derived and that the valuation of costs and benefits requires estimates and judgments by management. This report has been prepared in accordance with GAAP as promulgated by the Governmental Accounting Standards Board (GASB).

Actuarial Funding Status

SBCERA contracts with an independent actuarial firm, Segal Consulting (Segal), to conduct annual actuarial valuations, which are presented to the Board each year. On a triennial basis, Segal also conducts an experience study and makes recommendations to the Board on all economic and non-economic assumptions, which was completed in 2017. Segal's annual actuarial valuation for the year ended June 30, 2017 was presented to the Board, with subsequent approval, on December 7, 2017.

The funding objective of SBCERA is to maintain a well-funded plan by setting a strategic allocation that has a high probability of achieving the returns necessary to meet the expected liabilities with the lowest level of expected risk, while secondarily minimizing member contributions. Generally, employer contributions are relatively stable, on a percentage basis, based on member payroll. However, on a five-year smoothed basis, if actual fund returns are below the actuarial hurdle rate of 7.25%, the employer will make up the shortfall on a 20-year amortized basis.

The actuarial accrued liability of the SBCERA Plan on June 30, 2017 and 2016 amounts to \$11.93 billion and \$10.67 billion, respectively. The actuarial value of assets and the fair value of assets increased from \$8.74 billion and \$8.20 billion at June 30, 2016, to \$9.39 billion and \$9.29 billion at June 30, 2017, respectively. The funding ratio, on a fair value basis, increased to 77.87% at June 30, 2017, from the previous fiscal year's 76.82%. This ratio compares the assets of the Plan to the liabilities of the Plan. High ratios indicate a well-funded plan with assets sufficient to pay most future benefits. Lower ratios may indicate recent changes to benefit structures, funding of a plan below actuarial requirements, poor asset performance, or a variety of other changes. For a more in-depth review of the funding of the Plan, see the Actuarial Section of this report (page 121).



(Continued)

Due to GASB Statement No. 67, *Financial Reporting for Pension Plans*, the total pension liability of participating employers is not reported in the Plan's Basic Financial Statements, but is disclosed in Note 4 to the Basic Financial Statements, and in the required supplementary information. The total pension liability is determined by the Plan's actuary and is a measure of the present value of the actuarial accrued liabilities estimated to be payable in the future to current retirees, beneficiaries, and active members for service earned to date. The net pension liability is measured as the total pension liability less the amount of the Plan's fiduciary net position. The net pension liability is an accounting measurement for financial statement purposes.

Investments

The Board maintains sole and exclusive control of all investments of the Plan, and is responsible for the establishment of investment objectives, strategies, and policies. The Board is authorized to invest in any form or type of investment deemed prudent in the informed opinion of the Board. Members of the Board serve in a fiduciary capacity and must discharge their duties with respect to the interests of the members, their beneficiaries, and the Plan.

External, professional investment management firms manage SBCERA's assets. The investment staff closely monitors the activity of these managers and assists the Board with the implementation of investment policies and long-term investment strategies. The *Investment Plan, Policy and Guidelines* allows for sufficient flexibility in the management oversight process to capture investment opportunities as they may occur, while setting forth reasonable parameters to ensure prudence and care in the execution of the investment program.

For the year ended June 30, 2017, SBCERA's investment portfolio provided a 13.26% rate of return (net of fees). The Plan's annualized rate of return (net of fees) over the three-year period ended June 30, 2017 was 5.46%. On a fair value basis, the total pension Plan net position available for benefits increased from \$8.20 billion to \$9.29 billion. Details of the components of this increase are included in the Statements of Changes in Fiduciary Net Position on page 34 of this report.

Professional Services

Professional consultants are appointed by the Board to perform professional services that are essential to the effective and efficient operation of the Plan. An opinion from SBCERA's certified public accountant, a certification from the Plan's independent actuary, and a report on investment activity from the Plan's investment consultant are all included in this report. The consultants appointed by the Board are listed on page 12 of this report.

(Continued)

Awards

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to SBCERA for its CAFR for the year ended June 30, 2016. This was the 20th consecutive year that SBCERA has achieved this prestigious award. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

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

In addition, the Public Pension Coordinating Council (PPCC) awarded a Public Pension Standards Award for Funding and Administration to SBCERA for the year ended June 30, 2017. This is the 2nd year that SBCERA has received this prestigious award. In order to be awarded a Public Pension Standards Award, a public pension program must meet professional standards for plan design, administration, and funding, as set forth in the Public Pension Standards. The PPCC (a confederation of three national associations that represent public retirement systems and administrators) established the Public Pension Standards to reflect minimum expectations for public retirement system management and administration, as well as serve as a benchmark by which all defined benefit public plans should be measured. A Public Pension Standards Award is valid for a period of one year.

Acknowledgments

The successful and timely completion of SBCERA's CAFR would not be possible without the dedication and teamwork of SBCERA's staff and professional providers, along with the support and leadership of the Board. We would like to express our sincerest appreciation to all of these individuals for their commitment to our organization and its success.

To our participating employers and members, we would like to thank you for your ongoing support and confidence in SBCERA. We are humbled by the trust you place in us, which inspires progress within our organization. As we celebrate a milestone year at SBCERA, we will continue to strive for MVP performance that is worthy of you.

Very truly yours,

Christie Sortin

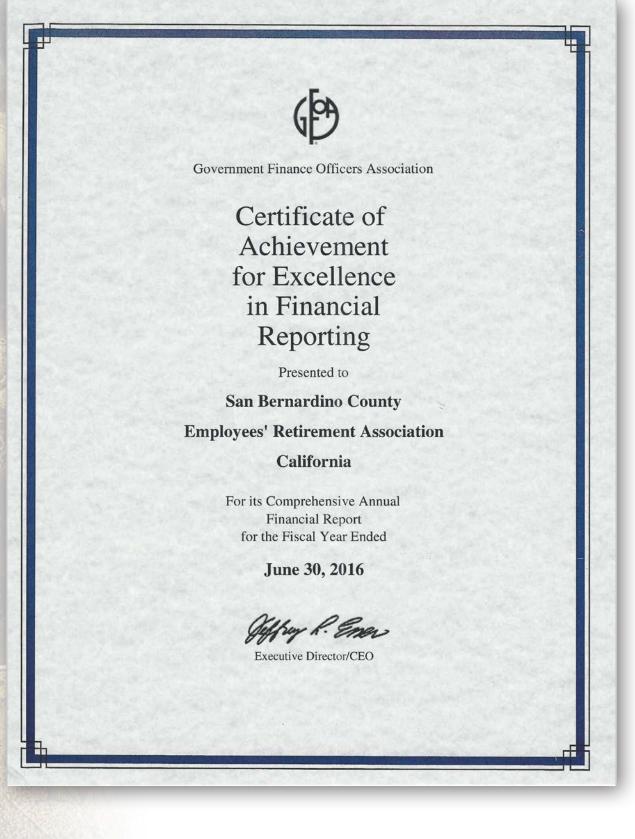
Christie L. Porter, CEBS, PMP Chief Operating Officer

Julie Underwood

Julie Underwood, CPA *Chief Financial Officer*

Certificate of Achievement for Excellence in Financial Reporting

San Bernardino County Employees' Retirement Association



Public Pension Standards Award

San Bernardino County Employees' Retirement Association



Public Pension Coordinating Council

Public Pension Standards Award For Funding and Administration 2017

Presented to

San Bernardino 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)

alan Helinkle

Alan H. Winkle Program Administrator



Members of the Board of Retirement

As of June 30, 2017¹



Louis Fiorino Board Chair Administrative Committee Audit Committee Elected by General Members



Janice Rutherford Board Vice Chair Administrative Committee²

Appointed by Board of Supervisors



Brendan Brandt Audit Committee²

Appointed by Board of Supervisors



Anthony J. DeCecio Administrative Committee



Sean Flynn

Appointed by Board of Supervisors



Dawn Stafford Administrative Committee

Elected by Retired Members



Oscar Valdez Investment Committee

County Treasurer/Ex-Officio Member



Neal Waner Investment Committee²

Appointed by Board of Supervisors



Vere Williams Audit Committee Investment Committee Elected by General Members



Members are listed as of the date this report is issued.
 Denotes Committee Chair.



John Michaelson Audit Committee

Alternate: Elected by Retired Members



Jared Newcomer Investment Committee

Alternate: Elected by Safety Members



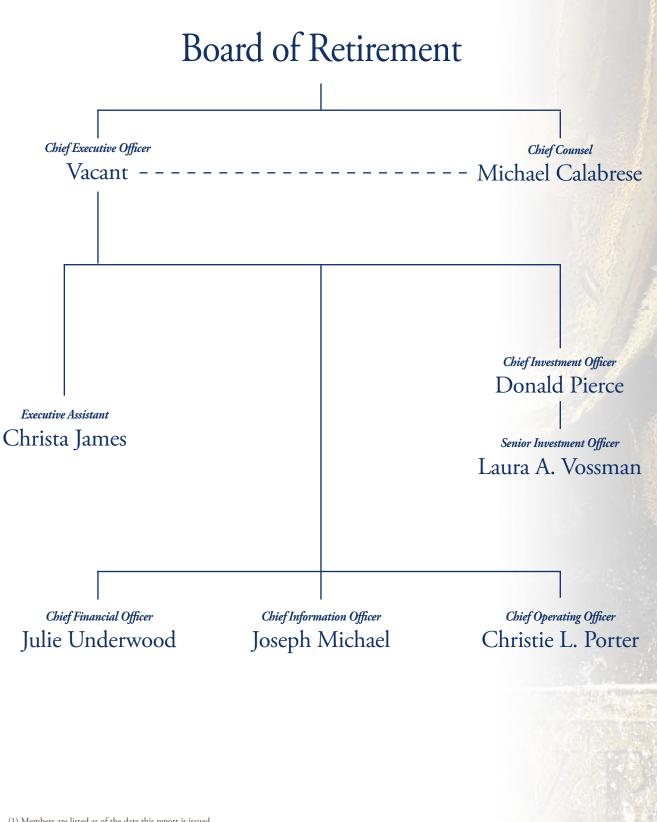
Larry Walker Investment Committee (Alternate)

Alternate: County Treasurer/ Ex-Officio Member



Key Members of the Administrative Staff

As of June 30, 2017¹



(1) Members are listed as of the date this report is issued.

Outside Consultants

As of June 30, 2017

<u>ACTUARY</u>

Segal Consulting Consulting Actuary San Francisco, CA

CUSTODIAL SERVICES

State Street Bank and Trust Company Sacramento, CA

INDEPENDENT AUDITORS

Macias Gini & O'Connell LLP Financial Statement Auditors Los Angeles, CA

INVESTMENT CONSULTANTS

NEPC, LLC Investment Advisor Redwood City, CA

Kreischer Miller Compliance Advisor Horsham, PA

Maples Finance LLC Administrator Cayman Islands

LEGAL COUNSEL

Hanson Bridgett, LLP Tax & Trust Counsel San Francisco, CA

Foley & Lardner, LLP Investment Counsel Boston, MA

Arias & Lockwood, APLC

Litigation & Disability Counsel San Bernardino, CA

Nossaman, LLP General Advisory Counsel Los Angeles, CA

<u>TECHNICAL & DESIGN</u> <u>SUPPORT</u>

Levi, Ray and Shoup, Inc. Pension Software Springfield, IL

Spencer Lewis Group Graphic Design Rancho Cucamonga, CA

Note: Investment professionals are listed on page 109, and a schedule of manager fees is located on page 117 of this report, in the Investments section.

Report from the Board Chair

San Bernardino County Employees' Retirement Association

November 28, 2017

Dear Members:

On behalf of the San Bernardino County Employees' Retirement Association (SBCERA or the Plan) Board of Retirement (Board), I am pleased to present the June 30, 2017 and 2016 Comprehensive Annual Financial Report (CAFR). As America's pastime has wrapped up the World Series, SBCERA presents our award-winning CAFR, "Most Valuable Plan."

After 112 years, baseball's championship is as beloved as ever. San Bernardino County had its share of contributing to baseball's finest group of assets. In this



year's CAFR we have highlighted Major League Baseball talent from our local team here in San Bernardino County. From Roland "Rollie" Fingers to Ken Griffey Jr., this area has helped produce some of baseball's greats. I hope you enjoy this look at some of our local assets as you read about the impressive value that has been added to the SBCERA Plan over the course of this year.

As of June 30, 2017, the SBCERA Plan has grown by over \$1 billion dollars. This extraordinary growth happened as our Sharpe Ratio (the risk adjusted return), for the 3 years ended June 30, 2017, was 1.5, thus placing us in the 1st percentile for this risk avoidance metric. The Plan grew at record rates while still maintaining a low risk portfolio. Additionally, our 1-year return as of June 30, 2017, was 13.26%, well above our assumed rate of return of 7.25%. These are just a few of the home runs for SBCERA's Board, investment staff, and our teammates in the investment community.

The SBCERA Board and staff have also been hard at work reviewing the Board policies currently in place. There are approximately 90 Board policies that govern investment decisions, guide administrative activities, regulate benefit administration, and manage other areas of governance. Periodic review is essential to keep up with the complexities of SBCERA and we are diligently reviewing these key governance tools.

Another significant endeavor taken on by SBCERA staff, and approved by the Board, was a transfer, for actuarial purposes, of Barstow Fire Protection District and City of Big Bear Lake safety member employees into a merged cost pool with the County of San Bernardino Safety cost group. This actuarial move will help stabilize rates for both employers and their employees, as they were in a much smaller Other Safety cost group, and now join the much larger County Safety cost group.



Report from the Board Chair

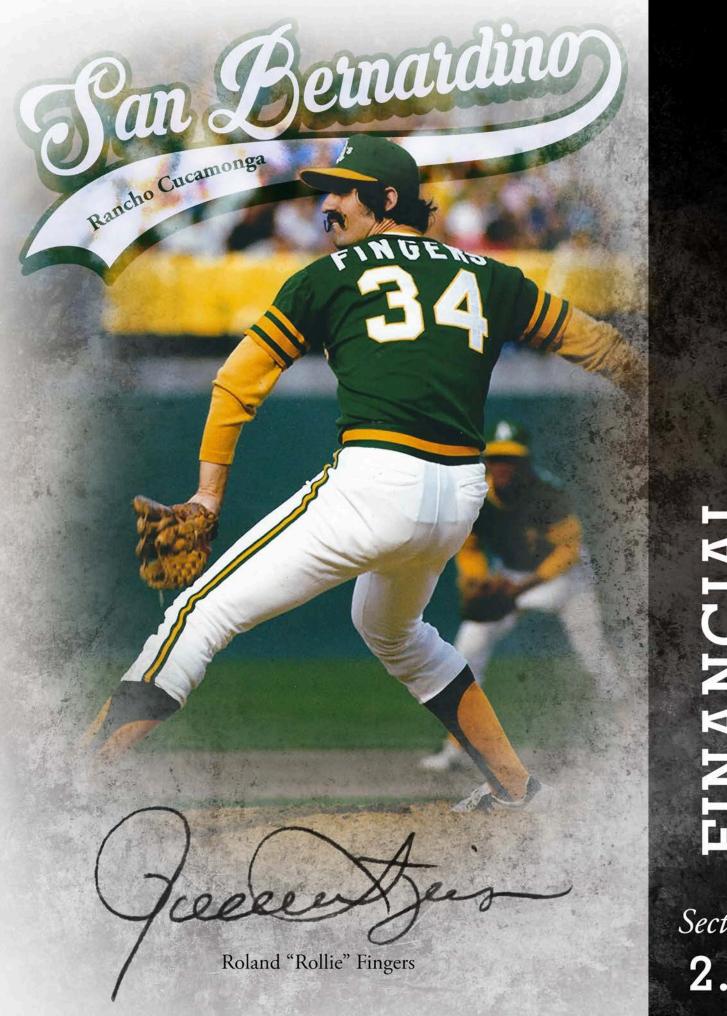
(Continued)

I am tremendously proud of the efforts that both SBCERA staff and the Board have put forth this year. As Chair of the Board, I look forward to humbly guiding this team as we work hard on behalf of our valued stakeholders.

Sincerely,

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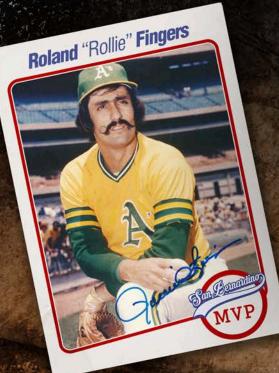
Louis Fiorino, Board Chair SBCERA Board of Retirement



FINANCIAI

Section 2.0

Section 2.0



Rollie

Recognized nearly as much for his famous mustache as his baseball accolades, Roland "Rollie" Fingers is arguably the most accomplished athlete to come from San Bernardino County. After spending his teenage years in Rancho Cucamonga (at the time, it was the unincorporated "Cucamonga") and attending Upland High School¹, Fingers went on to a Hall of Fame career with the Oakland Athletics (A's), San Diego Padres and Milwaukee Brewers. A regular season and World Series MVP winner, as well as a recipient of the Cy Young Award for best pitcher, Fingers won three World Series titles as the star pitcher for the Oakland A's.²

Moneyball:

Much is made about the impact of a team's payroll on its odds of winning. Yet, as shown in the film, Moneyball, the Oakland A's are a franchise known for success while remaining frugal. The team spent just \$41 million on payroll in 2001, narrowly losing to the New York Yankees (who spent \$125 million) in the postseason.³

(1) Crowley, Kent. "Rollie Fingers: Hall of Fame via Cucamonga field." Foothills Reader. September 2014.
(2) Ibid.
(3) Weight: Runn. (2011. Optobar). "Manageball: A Look Inside Maior League Research and the Optobard A's." Placeball.

(3) Wright, Ryan. (2011, October). "Moneyball: A Look Inside Major League Baseball and the Oakland A's." Bleacher Report.

Independent Auditor's Report



Independent Auditor's Report

To the Members of the San Bernardino County Employees' Retirement Association Board of Retirement San Bernardino, California

Report on the Financial Statements

We have audited the accompanying financial statements of the San Bernardino County Employees' Retirement Association (SBCERA) as of and for the years ended June 30, 2017 and 2016, and the related notes to the financial statements, which collectively comprise SBCERA'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 audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

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

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of SBCERA as of June 30, 2017 and 2016, and the changes in its fiduciary net position for the years then ended, in accordance with accounting principles generally accepted in the United States of America.

Macias Gini & O'Connell LLP 777 S. Figueroa Street, Suite 2500 Los Angeles, CA 90017

www.mgocpa.com

Independent Auditor's Report

(Continued)

Emphasis of Matter

As discussed in Note 4 to the basic financial statements, the net pension liability of the participating employers as of June 30, 2017 and 2016 was \$2.64 billion and \$2.47 billion, respectively. The Plan fiduciary net position as a percentage of the total pension liability as of June 30, 2017 and 2016 was 77.90% and 76.86%, respectively. The actuarial valuations used to measure the total pension liability are very sensitive to the underlying assumptions, including discount rates of 7.25 percent and 7.50 percent as of June 30, 2017 and 2016, respectively, which represent the long-term expected rates of return. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

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

Other Information

Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise SBCERA's basic financial statements. The introductory section, the other supplementary information in the financial section, and the 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 statements of changes in assets and liabilities of the agency fund, schedule of administrative and other expenses, schedule of investment expenses and schedule of payments to consultants are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the statements of changes in assets and liabilities of the agency fund, schedule of administrative and other expenses, schedule of investment expenses and schedule of payments to consultants are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Independent Auditor's Report

(Continued)

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

Macias Gihi É O'Connell LP Los Angeles, California November 28, 2017

(Unaudited) June 30, 2017 and 2016

The San Bernardino County Employees' Retirement Association (SBCERA) administers the SBCERA pension plan – a cost-sharing multiple-employer defined benefit pension plan (the Plan). As management of SBCERA, we offer readers of SBCERA's financial statements this narrative overview and analysis of the financial activities of SBCERA for the years ended June 30, 2017 and 2016. Readers are encouraged to consider the information presented in this analysis in conjunction with Management's Letter of Transmittal, included in the Introductory section, as well as the Basic Financial Statements as presented in this report.

Financial Highlights

- The net position restricted for pensions of SBCERA as of June 30, 2017 and 2016 was \$9.29 billion and \$8.20 billion, respectively. All of the net position is available to meet SBCERA's ongoing obligations to Plan members (members) and their beneficiaries.
- SBCERA's total net position restricted for pensions increased by \$1.09 billion or 13.32% and decreased by \$74.69 million or (0.90%) for the years ended June 30, 2017 and 2016, respectively. The increase in 2017 and decrease in 2016 are primarily a result of positive and negative investment returns, respectively.
- Total additions, as reflected in the Statements of Changes in Fiduciary Net Position, for the years ended June 30, 2017 and 2016 are \$1.60 billion and \$399.62 million, respectively. This includes employer and member contributions of \$504.34 million, net investment income of \$1.10 billion, and net securities lending income of \$415 thousand for the year ended June 30, 2017, along with employer and member contributions of \$479.64 million, net investment loss of \$80.39 million, and net securities lending income of \$362 thousand for the year ended June 30, 2016.
- Total deductions as reflected in the Statements of Changes in Fiduciary Net Position total \$511.07 million for the year ended June 30, 2017, an increase of \$36.77 million over the year ended June 30, 2016, or approximately 7.75%. Total deductions for the year ended June 30, 2016 were \$474.30 million, an increase of \$36.91 million over the year ended June 30, 2015, or approximately 8.44%.
- The net pension liability of participating employers as of June 30, 2017 and 2016 are \$2.64 billion and \$2.47 billion, respectively. The Plan fiduciary net position as a percentage of the total pension liability is 77.90% and 76.86% as of June 30, 2017 and 2016, respectively. The net pension liability as a percentage of covered payroll is 195.74% and 188.55% as of June 30, 2017 and 2016, respectively. Refer to Note 4 Net Pension Liability of Participating Employers, and Required Supplementary Information sections of this report, for further information.

(Unaudited) June 30, 2017 and 2016 (Continued)

Overview of the Financial Statements

The following discussion and analysis are intended to serve as an introduction to SBCERA's Basic Financial Statements. The financial statements and required disclosures are prepared in accordance with pronouncements (accounting principles and reporting guidelines) as set forth by the Governmental Accounting Standards Board (GASB). These pronouncements require certain disclosures and require SBCERA to report using the full accrual method of accounting. SBCERA complies with all material requirements of these pronouncements. SBCERA's Basic Financial Statements are comprised of the following components:

- 1. Statements of Fiduciary Net Position
- 2. Statements of Changes in Fiduciary Net Position
- 3. Statements of Fiduciary Net Position Agency Fund
- 4. Notes to the Basic Financial Statements

The **Statements of Fiduciary Net Position** are a snapshot of account balances at year-end, indicating the assets available for future payments to retirees and their beneficiaries, and any current liabilities owed as of year-end.

The **Statements of Changes in Fiduciary Net Position** reflect all the activities that occurred during the year and show the impact of those activities as additions or deductions to the Plan. The trend of additions versus deductions to the Plan will indicate the condition of SBCERA's financial position over time.

The Statements of Fiduciary Net Position and the Statements of Changes in Fiduciary Net Position report information about SBCERA's activities. These statements include all assets and liabilities, using the full accrual method of accounting, which is similar to the accounting used by private sector companies. All of the current year's revenues and expenses are taken into account regardless of when cash is received or paid. All investment gains and losses are shown at trade date, not settlement date, and both realized and unrealized gains and losses are shown on investments. In addition, all property and equipment are depreciated and intangible assets are amortized over their useful lives. Refer to Note 2 – Summary of Significant Accounting Policies (see section for Capital Assets), for further information.

The Statements of Fiduciary Net Position and Statements of Changes in Fiduciary Net Position report SBCERA's net position – restricted for pensions (net position is the difference between assets and liabilities) as one way to measure the Plan's financial position. Over time, increases and decreases in SBCERA's net position are an indicator of whether its financial health is improving or deteriorating. Other factors, such as investment earnings and SBCERA's actuarial funded status, should also be considered in measuring SBCERA's overall financial health. Refer to SBCERA's Basic Financial Statements following this analysis.

(Unaudited) June 30, 2017 and 2016 (Continued)

Overview of the Financial Statements (Continued)

The **Statements of Fiduciary Net Position – Agency Fund** are a snapshot of account balances at year-end for the agency fund, Pacific Public Partners (PPP). PPP is a separate legal entity. Therefore, financial information for this fund is reported separately from the financial information presented for SBCERA. It indicates the assets held in trust and any liabilities owed at year-end. The Statements of Changes in Assets and Liabilities – Agency Fund is presented in the Other Supplementary Information section of this report. Refer to Note 10 – Pacific Public Partners, for further information.

Notes to the Basic Financial Statements (Notes) are an integral part of the financial reports. The Notes provide additional information that is necessary to acquire a full understanding of the data provided in the financial statements including a detailed discussion of key policies, programs, investments, and activities that occurred during the year. Refer to the Notes to the Basic Financial Statements section of this report.

Other information to supplement SBCERA's Basic Financial Statements is provided as follows:

Required Supplementary Information presents historical trend information concerning the changes in net pension liability, employer contributions, and investment returns, and includes notes that explain factors that significantly affect trends in the amounts reported, such as changes of benefit terms, changes in the size or composition of the population covered by the benefit terms, or the use of different assumptions over time. This information is based on actuarial valuations and contributes to the understanding of the changes in the net pension liability of participating employers over the past 10 years. Refer to the Required Supplementary Information section of this report.

Other Supplementary Information includes the Statements of Changes in Assets and Liabilities – Agency Fund, and the Schedules of Administrative and Other Expenses, Investment Expenses, and Payments to Consultants which are all presented immediately following the Required Supplementary Information section of this report.

Financial Analysis - Net Position

Net position may serve over time as a useful indication of SBCERA's financial position. Refer to Table 1, on page 23, for further information. As of June 30, 2017, SBCERA had \$9.29 billion in net position, which means total assets of \$9.46 billion exceed total liabilities of \$174.63 million. As of June 30, 2016 and 2015, SBCERA had \$8.20 billion and \$8.27 billion in net position, respectively, as a result of total assets of \$8.40 billion and \$9.04 billion exceeding total liabilities of \$199.09 million and \$771.52 million, respectively. All of the net position is available to meet SBCERA's ongoing obligation to members and their beneficiaries.

As of June 30, 2017, net position increased by \$1.09 billion, accounting for a 13.32% increase from the prior year, due primarily to gains from net investment activity. As of June 30, 2016, net position decreased by \$74.69 million, accounting for a 0.90% decrease from the prior year, due primarily to losses from net investment activity.

(Unaudited) June 30, 2017 and 2016 (Continued)

Financial Analysis - Net Position (Continued)

Fiduciary Net Position (Table 1)

As of June 30, 2017, 2016 and 2015 (Amounts in Thousands)

	(a) 2017	(b) (c) 2016 2015		(a-b=d) Amount Increase/ (Decrease)	(d/b) Percent Increase/ (Decrease)	
ASSETS						
Cash and cash equivalents	\$ 5,755	\$	8,446	\$ 9,916	\$ (2,691)	(31.86%)
Receivables	70,350		89,140	601,631	(18,790)	(21.08%)
Investments, at fair value	9,380,575		8,291,175	8,427,428	1,089,400	13.14%
Capital assets, net	6,391		7,304	4,200	(913)	(12.50%)
TOTAL ASSETS	 9,463,071		8,396,065	9,043,175	1,067,006	12.71%
LIABILITIES						
Securities lending	103,668		95,438	123,778	8,230	8.62%
Securities options payable	13,231		41,851	70,625	(28,620)	(68.39%)
Payables for securities purchased	45,647		50,514	568,642	(4,867)	(9.63%)
Other liabilities	12,084		11,288	8,471	796	7.05%
TOTAL LIABILITIES	 174,630		199,091	771,516	(24,461)	(12.29%)
NET POSITION – RESTRICTED FOR PENSIONS	\$ 9,288,441	\$	8,196,974	\$ 8,271,659	\$ 1,091,467	13.32%

In order to determine whether the \$9.29 billion in net position will be sufficient to meet future obligations, SBCERA's independent actuary, Segal Consulting, performed an actuarial valuation as of June 30, 2017. The result of the valuation determines what future contributions are needed by the participating employers and members to pay all expected future benefits. The valuation takes into account SBCERA's policy to smooth the impact of market volatility by spreading each year's gains or losses over five years.

(Unaudited) June 30, 2017 and 2016 (Continued)

Financial Analysis - Net Position (Continued)

On the valuation date, the assets available for payment of retirement benefits are appraised. These assets are compared with the actuarial liabilities, which are the actuarial present value of all future benefits expected to be paid with respect to each member. The actuary must use assumptions regarding life expectancy, projected salary increases over time, projected retirement age, and expected rate of return for the investment portfolio (7.25% rate of return was used for the June 30, 2017 valuation, and 7.50% rate of return was used for the June 30, 2016 and 2015 valuations). All assumptions used by the actuary are reviewed by the Board of Retirement (Board), every three years.

Capital Assets

SBCERA's capital assets decreased from \$7.30 million to \$6.39 million (net of accumulated depreciation and amortization) between the years ended June 30, 2016 and 2017, after increasing from \$4.20 million to \$7.30 million between the years ended June 30, 2015 and 2016. This investment in capital assets includes equipment, furniture, leasehold improvements, software, and technology infrastructure. The total decrease in SBCERA's investment in capital assets for the year ended June 30, 2017 was \$913 thousand from 2016. The decrease is primarily due to older assets being depreciated or amortized during 2017. The total increase in SBCERA's capital assets between the years ended June 30, 2015 and 2016 of \$3.10 million was primarily due to the costs incurred for SBCERA's building expansion project, which will allow SBCERA staffing to grow over the next several years while utilizing the same business location.

Reserves

SBCERA's reserves are established based upon contributions and the accumulation of investment income, after satisfying investment, administrative, and other expenses. Refer to Table 2, on page 25, for further information.

Investments are stated at fair value instead of at cost and include the recognition of unrealized gains and losses in the current period. For actuarial purposes, it is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to fair value. Under this valuation method, the full value of market fluctuations are not recognized in a single year, they are smoothed over a five-year period and, as a result, the asset value and the plan costs are more stable. These gains and losses are shown in the net unrecognized gains/(losses) reserve account.

Several factors contributed to an increase in the net unrecognized gains/(losses) reserve account of (\$97.54) million at June 30, 2017 from (\$539.99) million at June 30, 2016 and \$16.31 million at June 30, 2015, or an increase of approximately \$442.45 million to the year ended June 30, 2017 from the year ended June 30, 2016 and a decrease of \$556.30 million to the year ended June 30, 2016 from the year ended June 30, 2015, respectively, as shown on the next page.

(Unaudited) June 30, 2017 and 2016 (Continued)

Reserves (Continued)

- The overall increase in the fair value of investments in the years ended June 30, 2017 and 2015, and overall decrease in the fair value of investments in the year ended June 30, 2016.
- Interest crediting at the actuarial assumed interest rate of 7.25% for the year ended June 30, 2017 and 7.50% for the years ended June 30, 2016 and 2015, as dictated by the *Interest Crediting Procedures and Undesignated Excess Earnings Allocation* Policy.
- The five-year smoothing of investment gains and losses.

Reserves (Table 2)

As of June 30, 2017, 2016 and 2015 (Amounts in Thousands)

Type of Reserve	2017	2016	2015
Member deposit reserve ¹	\$ 1,345,262	\$ 1,288,669	\$ 1,240,297
Employer current service reserve ¹	2,398,395	2,265,676	2,105,743
Contra account ¹	(2,689,760)	(2,476,403)	(2,148,114)
Pension reserve ¹	4,327,170	4,022,989	3,766,863
Cost-of-living reserve ¹	1,913,071	1,752,232	1,601,106
Annuity reserve ¹	2,017,325	1,813,068	1,622,374
Supplemental disability reserve ¹	8,194	8,639	9,038
Survivor benefit reserve ¹	65,633	61,357	57,267
Burial allowance reserve ²	686	732	779
TOTAL RESERVES (SMOOTHED MARKET ACTUARIAL VALUE)	9,385,976	8,736,959	8,255,353
Net unrecognized gains/(losses)	(97,535)	 (539,985)	16,306
NET POSITION – RESTRICTED FOR PENSIONS INCLUDING NON- VALUATION RESERVES, AT FAIR VALUE	\$ 9,288,441	\$ 8,196,974	\$ 8,271,659

(1) Included in valuation value of assets.

(2) Not included in valuation value of assets.

(Unaudited) June 30, 2017 and 2016 (Continued)

Additions and Deductions to Fiduciary Net Position Additions

The primary sources of financing SBCERA benefits are through the collection of participating employer and member contributions and through earnings on investment income (net of investment expenses). Additions for the year ended June 30, 2017 totaled \$1.60 billion compared to \$399.62 million for June 30, 2016 and \$713.98 million for June 30, 2015. Refer to Table 3, on page 28, for further information. Overall, additions increased by \$1.20 billion or a 301.02% increase between the years ended June 30, 2016 and 2017 due primarily to a 1,465.57% increase in net investment income compared to the prior year. Employer and member contributions, and net securities lending income also increased by 5.86%, 3.40%, and 14.64%, respectively, compared to the prior year. Additions decreased by \$314.37 million or a 44.03% decrease between the years ended June 30, 2015 and 2016 due primarily to a 128.66% decrease in net investment income, which was slightly offset by increases in employer and member contributions, and securities lending income does not a 128.66% decrease in net investment income, which was slightly offset by increases in employer and member contributions, and securities lending income of 12.29%, 7.11%, and 5.23%, respectively, compared to the prior year.

Overall, total employer and member contributions continue to rise due to the increases in the average employer and member contribution rates, as recommended by the Plan's independent actuary. Refer to Note 3 – Contribution Requirements, for further information. In addition, SBCERA's net position increased due in large part to SBCERA's investment portfolio. Gains compared to the prior year from net investment activity and securities lending income of \$1.18 billion and \$53 thousand, respectively, contributed to the overall increase for the year ended June 30, 2017, compared to decreases from the prior year in net investment income of \$360.89 million for June 30, 2016, which resulted in an overall decrease in net position for 2016 compared to 2015. The overall increase in net investment income for 2017 is primarily due to a stronger market resulting from emerging market equities delivering solid and steady gains, increases in crude oil prices, economic growth in both domestic and foreign markets, and increasing demand in the credit market. Refer to Note 6 – Securities Lending, and Note 7 – Deposits and Investments, for further information.

(Unaudited) June 30, 2017 and 2016 (Continued)

Additions and Deductions to Fiduciary Net Position (Continued) Deductions

SBCERA was created to provide lifetime retirement benefits, survivor benefits, and permanent disability benefits to eligible members and their beneficiaries. The cost of such programs includes recurring Plan designated benefit payments, refunds of contributions to terminated members, and the cost of administering the Plan.

Deductions for the year ended June 30, 2017 totaled \$511.07 million, an increase of \$36.77 million or 7.75% over the June 30, 2016 amount of \$474.30 million. The increase in deductions for the year ended June 30, 2016 was \$36.91 million or 8.44% over the June 30, 2015 amount of \$437.39 million. Refer to Table 3, on page 28, for further information. The increases in all years, related to benefits and refunds, are primarily due to the overall growth in the number of retirees and the average amount of benefits paid to them. Refer to Note 1 – Significant Provisions of the Plan (see section for SBCERA Membership), for further information. Deductions for administrative expenses have increased in all years due primarily to the increase in administrative personnel costs (salary and cost-of-living adjustments, and filling vacant and new positions), and a \$1.01 million write-off in 2017 for the uncollectible startup and administrative costs loaned to Pacific Public Partners (refer to Note 10 - Pacific Public Partners, for further information). In addition, deductions for other expenses have increased in all years due primarily to higher actuarial, legal, and non-capitalized technology infrastructure costs associated primarily with the 2017 triennial actuarial experience study, increases in actuarial consulting costs related to employer cost group issues, increases in legal personnel costs (salary and cost-of-living adjustments, and filling a new position in 2017), outside attorney fees associated with a significant legal case that is currently pending at June 30, 2017, increases in software licensing and support, increases associated with the 2016 capital outlay expansion project, and the 2017 partially completed network security project. Refer to Note 2 - Summary of Significant Accounting Policies (see section for Administrative Expenses), and Other Supplementary Information (see Schedule of Administrative and Other Expenses), for further information.

(Unaudited) June 30, 2017 and 2016 (Continued)

Additions and Deductions to Fiduciary Net Position (Continued)

Changes in Fiduciary Net Position (Table 3)

For the Years Ended June 30, 2017, 2016 and 2015 (Amounts in Thousands)

	(a) 2017	(b) 2016	(c) 2015	(a-b=d) Amount Increase/ (Decrease)	(d/b) Percent Increase/ (Decrease)
ADDITIONS					
Employer contributions	\$ 360,478	\$ 340,512	\$ 303,244	\$ 19,966	5.86%
Member contributions	143,858	139,132	129,895	4,726	3.40%
Net investment income/(loss) ¹	1,097,783	(80,390)	280,498	1,178,173	1,465.57%
Net securities lending income	415	362	344	53	14.64%
TOTAL ADDITIONS	1,602,534	399,616	713,981	1,202,918	301.02%
DEDUCTIONS (refer to graph belo	w)				
Benefits and refunds	497,904	464,068	428,475	33,836	7.29%
Administrative expenses	9,961	7,569	6,710	2,392	31.60%
Other expenses	3,202	2,664	2,208	538	20.20%
TOTAL DEDUCTIONS	511,067	474,301	437,393	36,766	7.75%
INCREASE/(DECREASE) IN NET POSITION – RESTRICTED FOR PENSIONS NET POSITION - RESTRICTED	1,091,467	(74,685)	276,588	1,166,152	1,561.43%
FOR PENSIONS BEGINNING OF YEAR	8,196,974	8,271,659	7,995,071	(74,685)	(0.90%)
END OF YEAR	\$ 9,288,441	\$8,196,974	\$ 8,271,659	\$ 1,091,467	13.32%
\$497,904 (Amounts in Thousands)					
φι)/,)01	\$464,068				- \$500,000
	- 11		\$428,475		- \$400,000
	- 11		- 11		- \$300,000
12.7	-11		- 11		- \$200,000
	_		_		- \$100,000
\$9,961 \$3,202	2	\$7,569 \$2,664		\$6,710 \$2,208	— \$0
2017		2016		2015	
Benefits	and refunds	Administrative e	xpenses	Other expenses	

(1) Net of investment expenses of \$163,990, \$92,084 and \$93,351 for the years ended June 30, 2017, 2016 and 2015, respectively.



Management's Discussion and Analysis

(Unaudited) June 30, 2017 and 2016 (Continued)

Net Pension Liability of Participating Employers

SBCERA is subject to the provisions of GASB Statement No. 67 (GASB 67), *Financial Reporting for Pension Plans*, and SBCERA's participating employers are subject to the provisions of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*. These standards require governmental employers to recognize their long-term obligation for pension benefits as a liability on their balance sheets, to recognize their annual pension expense as a comprehensive measurement of the annual cost of pension benefits, and requires SBCERA to provide note disclosures and required supplementary information related to the Plan's net pension liability (NPL) of participating employers.

NPL represents the excess of the total pension liability (using an entry age cost method, discounted at a discount rate that reflects the expected return on Plan assets) over fiduciary net position (valued at fair value). It's a measurement of pension liabilities using market assets that provides a consistent and standardized methodology allowing comparability of data and increased transparency of the pension liability across all governmental entities. SBCERA has complied with GASB 67 for the years ended June 30, 2017 and 2016.

Based on the June 30, 2017, 2016 and 2015 actuarial valuations, the NPL of participating employers on a fair value basis are \$2.64 billion, \$2.47 billion, and \$1.94 billion, respectively. Refer to Table 4, below, for further information. The increase of \$167.27 million or 6.78% from 2016 to 2017 is primarily a result of changes in actuarial assumptions, which is offset slightly by investment returns that were higher than the assumed return. The increase of \$525.42 million or 27.04% from 2015 to 2016 is primarily a result of investment returns lower than the assumed return, which is offset slightly by lower than expected salary increases for active members. Refer to Note 4 – Net Pension Liability of Participating Employers, and the Required Supplementary Information sections of this report, for further information.

Changes in Net Pension Liability of Participating Employers (Table 4)

	(217	nounis in thous	anas)		
	(a) 2017	(b) 2016	(c) 2015	(a-b=d) Amount Increase	(d/b) Percent Increase
Total pension liability	\$ 11,923,945	\$ 10,665,212	\$ 10,214,473	\$ 1,258,733	11.80%
Less plan fiduciary net position	9,288,441	8,196,974	8,271,659	1,091,467	13.32%
NET PENSION LIABILITY OF PARTICIPATING EMPLOYERS	\$ 2,635,504	\$ 2,468,238	\$ 1,942,814	\$ 167,266	6.78%

As of June 30, 2017, 2016 and 2015 (Amounts in Thousands)

Management's Discussion and Analysis

(Unaudited) June 30, 2017 and 2016 (Continued)

Overall Analysis

For the year ended June 30, 2017, SBCERA's financial position and results from operations have experienced a significant increase from the prior year as net position increased by \$1.09 billion from the year ended June 30, 2016. For the year ended June 30, 2016, net position decreased by \$74.69 million from the year ended June 30, 2015. The overall increase in net position for June 30, 2017 is primarily attributable to the appreciation in the fair value of the Plan's investment portfolio due to gains incurred from a stronger financial market compared to a weaker market in 2016. Despite the fluctuations in the financial markets, SBCERA remains in a sound financial position to meet its obligations to members and their beneficiaries. The overall financial position of SBCERA results from a very strong and successful investment program, risk management, and strategic planning. As a long-term investor, SBCERA can take advantage of price volatility along with a diversified exposure to domestic and international equities, fixed income investments, natural resources, real estate, infrastructure, private equity, and overlay programs. Overall, this diversification minimizes the risk of loss and maximizes the rate of return for the Plan.

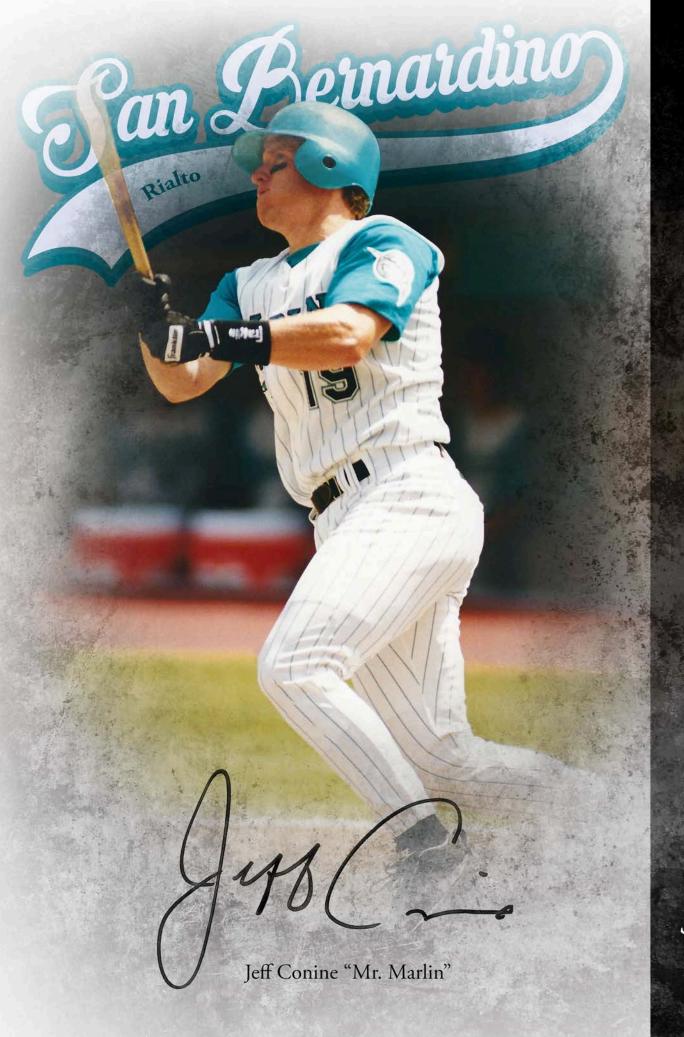
SBCERA's Fiduciary Responsibilities

SBCERA's Board and management are fiduciaries of the pension trust fund. Under the California Constitution, the assets of the Plan can only be used for the exclusive benefit of members and their beneficiaries.

Requests for Information

The Comprehensive Annual Financial Report is designed to provide the SBCERA Board, its membership, taxpayers, investment managers and creditors with a general overview of SBCERA's finances and to account for the money it received. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to:

San Bernardino County Employees' Retirement Association (SBCERA) Attn: Fiscal Services Department 348 West Hospitality Lane, Third Floor San Bernardino, CA 92415-0014



FINANCIAL Basic Financial Statements

Section **2.1**

Section 2.1 F I N A N C I A L Basic Financial Statements

Jeff Conine "Mr. Marlin"

Mr. Marlin

Moneyball:

On July 11, 1995, Jeff Conine was Major League Baseball's star of stars.¹ Hitting the game-winning home run, Conine won All-Star Game MVP in one of two All-Star appearances.² A graduate of Eisenhower High School, Conine was raised in Rialto. As a long-time member of the Florida Marlins, Conine won two World Series titles with the team and hit over 200 home runs and 1,000 RBI's during his career.³ He was nicknamed "Mr. Marlin" for his contributions to the franchise during his player career and in retirement.

In 2012, the Florida Marlins changed their name to the Miami Marlins when they opened their new stadium, Marlins Park. The stadium is the newest in Major League Baseball and cost over \$630 million to build.⁴

Murray, Jim. "Conine is Ignored No More." Los Angeles Times. July 1995.
 Baseball-Reference.com.
 Ibid.
 December 2017. "Miami Marlins Park." Project Management Consultants. www.aboutpmc.com.

Statements of Fiduciary Net Position As of June 30, 2017 and 2016 (Amounts in Thousands)

	2017	2016
ASSETS	·	
Cash		
Cash in bank	\$ 4,729	\$ 6,979
Cash pooled with County Treasurer	1,026	1,467
TOTAL CASH	5,755	8,446
Receivables		
Securities sold	26,404	46,667
Accrued interest and dividends	7,072	6,462
Employer and member contributions	32,432	30,118
Due from withdrawn employers	3,756	3,790
Due from agency fund	-	1,007
Other	686	1,096
TOTAL RECEIVABLES	70,350	89,140
Investments, at fair value		
Short-term cash investment funds	1,211,562	915,688
Emerging market debt	53,462	49,634
United States government obligations and other municipals	109,778	84,294
Corporate bonds	289,093	240,888
Foreign bonds	60,345	68,319
Domestic common and preferred stock	746,211	628,435
Foreign common and preferred stock	1,193,608	773,422
Investments of cash collateral received on securities lending	103,709	95,460
Real estate	494,425	525,075
Domestic alternatives	3,621,665	3,521,195
Foreign alternatives	1,496,717	1,388,765
TOTAL INVESTMENTS, AT FAIR VALUE	9,380,575	8,291,175
CAPITAL ASSETS, NET OF ACCUMULATED DEPRECIATION AND		
AMORTIZATION	6,391	7,304
TOTAL ASSETS	9,463,071	8,396,065
LIABILITIES		
Securities lending	103,668	95,438
Securities options payable	13,231	41,851
Payables for securities purchased	45,647	50,514
Other liabilities	12,084	11,288
TOTAL LIABILITIES	174,630	199,091
NET POSITION – RESTRICTED FOR PENSIONS	\$ 9,288,441	\$ 8,196,974

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

Statements of Changes in Fiduciary Net Position For the Years Ended June 30, 2017 and 2016 (Amounts in Thousands)

	2017	2016
ADDITIONS		
Contributions		
Employer contributions	\$ 360,478	\$ 340,512
Member contributions	143,858	139,132
TOTAL CONTRIBUTIONS	504,336	479,644
Investment Income/(Loss)		
Net appreciation/(depreciation) in fair value of investments:		
Securities and alternative investments	1,150,032	(111,668
Real estate	(16,041)	44,949
TOTAL NET APPRECIATION/(DEPRECIATION) IN FAIR VALUE OF INVESTMENTS	1,133,991	(66,719)
INTEREST INCOME ON CASH AND SECURITIES	45,921	40,313
Other Investment Income		
Dividend income	21,165	6,001
Net real estate rental income	30,356	26,292
Other income	30,340	5,807
TOTAL OTHER INVESTMENT INCOME	81,861	38,100
Less Investment Expenses		_ /
Investment advisement fees	(109,888)	(62,742
Other investment expenses	(54,102)	(29,342
TOTAL INVESTMENT EXPENSES	(163,990)	(92,084
NET INVESTMENT INCOME/(LOSS)	1,097,783	(80,390
Securities Lending Income		
Earnings	1,114	697
Less: rebates and bank charges	(699)	(335
NET SECURITIES LENDING INCOME	415	362
TOTAL ADDITIONS	1,602,534	399,616
DEDUCTIONS		
Benefits and refunds paid to members and beneficiaries	497,904	464,068
Administrative expenses	9,961	7,569
Other expenses	3,202	2,664
TOTAL DEDUCTIONS	511,067	474,301
NET INCREASE/(DECREASE) IN NET POSITION	1,091,467	(74,685
NET POSITION – RESTRICTED FOR PENSIONS		
	8,196,974	8,271,659
Beginning of Year		

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

Statements of Fiduciary Net Position Agency Fund – Pacific Public Partners As of June 30, 2017 and 2016 (Amounts in Thousands)

	201	17	2016	
ASSETS				
Due from participants	\$	-	\$ 1,007	
TOTAL ASSETS	\$	-	\$ 1,007	
LIABILITIES				
Due to SBCERA	\$	-	\$ 1,007	
TOTAL LIABILITIES	\$	-	\$ 1,007	

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

June 30, 2017 and 2016

NOTE 1 – Significant Provisions of the Plan

The San Bernardino County Employees' Retirement Association (SBCERA) administers the SBCERA pension plan – a cost-sharing multiple-employer defined benefit pension plan (the Plan). SBCERA was established in 1945 and operates under the provisions of the California County Employees Retirement Law of 1937 (CERL), the California Public Employees' Pension Reform Act of 2013 (PEPRA) and the regulations, procedures, and policies adopted by SBCERA's Board of Retirement (Board). The Plan's provisions may be amended by the California state legislature and in some cases require approval by the County of San Bernardino Board of Supervisors and/or the SBCERA Board.

SBCERA provides retirement, disability, death, and survivor benefits to its members, who are employed by 17 active Plan sponsors (participating employers), and 3 withdrawn employers which include: The County of San Bernardino, Barstow Fire Protection District, California Electronic Recording Transaction Network Authority, California State Association of Counties, City of Big Bear Lake, City of Chino Hills, Crestline Sanitation District, Department of Water and Power of the City of Big Bear Lake, Hesperia Recreation and Park District, Inland Library System, Law Library for San Bernardino County, Local Agency Formation Commission, Mojave Desert Air Quality Management District, SBCERA, San Bernardino County Transportation Authority, South Coast Air Quality Management District (SCAQMD), Superior Court of California County of San Bernardino (Superior Court), Inland Valley Development Agency (withdrew June 30, 2012), San Bernardino International Airport Authority (withdrew June 30, 2012), and Rim of the World Recreation and Park District (withdrew May 4, 2013).

Fiduciary oversight of SBCERA is vested with the SBCERA Board, which consists of nine voting members and three alternate members. Four members are appointed by the County of San Bernardino's Board of Supervisors, six members (which include two alternates) are elected by the members of SBCERA (General members elect two members, Safety members elect one member and one alternate, and retired members elect one member and one alternate) and the County of San Bernardino Treasurer (County Treasurer) is an ex-officio member who has designated one alternate. Board members serve three-year terms, with the exception of the County Treasurer, who serves during their tenure in office. The Board meets monthly. Appointed and retired members of the Board receive compensation (a stipend for meeting attendance), and all members are reimbursed for necessary business expenses pursuant to California Government Code (GC) section 31521. SBCERA's Chief Executive Officer is appointed by the Board, and implements the policies and direction set by the Board.

SBCERA publishes its own Comprehensive Annual Financial Report (CAFR) and receives its own independent financial statement audit. SBCERA is a legally separate and independent entity from the County of San Bernardino, not a component unit, and there is no financial interdependency with the County of San Bernardino. For these reasons, the County of San Bernardino's CAFR excludes the SBCERA pension trust fund as of June 30, 2017. An electronic copy of SBCERA's CAFR is available on SBCERA's website at www.SBCERA.org.

June 30, 2017 and 2016 (Continued)

NOTE 1 – Significant Provisions of the Plan (Continued)

Membership and Benefit Eligibility

All benefits established by the CERL and PEPRA, as amended from time to time, are administered by SBCERA for its participating employers. SBCERA administers benefits for two membership classifications, General and Safety, and those benefits are tiered based upon date of SBCERA membership. Safety membership is extended to those involved in active law enforcement and fire suppression. All other members are classified as General members. Generally, those who became members prior to January 1, 2013 are Tier 1 members. All other members are Tier 2. Employees become eligible for membership on their first day of regular employment, and members become fully vested after earning five years of service credit or attaining the age of 70. Additional information regarding SBCERA's benefits is included in the Summary Plan Description, also known as *The Compass*, which is available on SBCERA's website at www.SBCERA.org.

SBCERA Membership

An employee who is appointed to a regular position and whose service is greater than 50% of the full standard of hours required by an SBCERA participating employer must become a member of SBCERA on the first day of employment. However, membership may be delayed in accordance with SBCERA regulations for the purpose of establishing reciprocity with another public retirement system as described in the CERL, and employees who have attained age 60 prior to employment, may waive their membership within 90 days following the initial appointment.

June 30, 2017 and 2016 (Continued)

NOTE 1 – Significant Provisions of the Plan

Membership and Benefit Eligibility | SBCERA Membership (Continued)

SBCERA membership consists of active members, inactive members, and their beneficiaries as follows:

SBCERA Membership

As of June 30, 2017

		Tier 1			Tier 2		
Membership Type	General	Safety	Sub- Total	General	Safety	Sub- Total	Total
Active members:							
Active members – vested	11,849	1,683	13,532	38	1	39	13,571
Active members – non-vested	579	79	658	6,153	728	6,881	7,539
TOTAL ACTIVE MEMBERS	12,428	1,762	14,190	6,191	729	6,920	21,110
Inactive members or beneficiaries currently receiving benefits:							
Retirees currently receiving benefits	8,872	1,679	10,551	2	-	2	10,553
Beneficiaries and dependents currently receiving benefits	1,284	338	1,622	4	-	4	1,626
TOTAL INACTIVE MEMBERS OR BENEFICIARIES CURRENTLY RECEIVING BENEFITS	10,156	2,017	12,173	6	-	6	12,179
Inactive members not receiving benefits:							
Inactive members eligible for, but not yet receiving benefits	2,188	153	2,341	46	11	57	2,398
Inactive members eligible for refund value of account only ¹	1,927	65	1,992	1,078	79	1,157	3,149
TOTAL INACTIVE MEMBERS NOT RECEIVING BENEFITS	4,115	218	4,333	1,124	90	1,214	5,547
TOTAL SBCERA MEMBERSHIP	26,699	3,997	30,696	7,321	819	8,140	38,836

(1) Inactive members with less than five years of service credit are entitled to withdraw their refundable employee contributions made, together with accumulated interest only.

June 30, 2017 and 2016 (Continued)

NOTE 1 – Significant Provisions of the Plan

Membership and Benefit Eligibility | SBCERA Membership (Continued)

SBCERA Membership

As of June 30, 2016

		Tier 1			Tier 2		-
Membership Type	General	Safety	Sub- Total	General	Safety	Sub- Total	Total
Active members:							
Active members – vested	12,057	1,704	13,761	25	-	25	13,786
Active members – non-vested	1,179	135	1,314	4,904	534	5,438	6,752
TOTAL ACTIVE MEMBERS	13,236	1,839	15,075	4,929	534	5,463	20,538
Inactive members or beneficiaries currently receiving benefits:							
Retirees currently receiving benefits	8,466	1,596	10,062	-	-	-	10,062
Beneficiaries and dependents currently receiving benefits	1,243	323	1,566	2	-	2	1,568
TOTAL INACTIVE MEMBERS OR BENEFICIARIES CURRENTLY RECEIVING BENEFITS	9,709	1,919	11,628	2	-	2	11,630
Inactive members not receiving benefits:							
Inactive members eligible for, but not yet receiving benefits	2,166	148	2,314	22	5	27	2,341
Inactive members eligible for refund value of account only ¹	1,998	62	2,060	686	49	735	2,795
TOTAL INACTIVE MEMBERS NOT RECEIVING BENEFITS	4,164	210	4,374	708	54	762	5,136
TOTAL SBCERA MEMBERSHIP	27,109	3,968	31,077	5,639	588	6,227	37,304

(1) Inactive members with less than five years of service credit are entitled to withdraw their refundable employee contributions made, together with accumulated interest only.

June 30, 2017 and 2016 (Continued)

NOTE 1 – Significant Provisions of the Plan

Membership and Benefit Eligibility (Continued)

Member Retirement Benefits

General Tier 1 members are eligible for retirement benefits upon completion of 10 years of service credit and attaining age 50, or 30 years of service credit regardless of age, or age 70 regardless of years of service credit. Safety Tier 1 members have the same eligibility requirements as General members except they are required to complete only 20 years of service credit, regardless of age. Retirement benefits are calculated at 2% for General Tier 1 members and 3% for Safety Tier 1 members of the highest 12 consecutive months of compensation earnable, as defined in GC sections 31462.1, 31676.15, and 31664.1 of the CERL, for each completed year of service based on a normal retirement age of 55 for General members and age 50 for Safety members. For Tier 1 members, the maximum monthly retirement allowance is 100% of final compensation, and final compensation is capped pursuant to Internal Revenue Code (IRC) section 401(a)(17), which is \$270,000 and \$265,000 for calendar years 2017 and 2016, respectively. Tier 1 members and participating employers are exempt from paying contributions on compensation earnable paid in excess of the annual cap (except for the Survivor Benefit contribution), and Tier 1 members are exempt from paying contributions on compensation earnable when the member reaches 30 or more years of service credit (except for the Survivor Benefit contribution).

General Tier 2 members are eligible for retirement benefits upon completion of five years of service credit and attaining age 52. Safety Tier 2 members are eligible for retirement benefits upon completion of five years of service credit and attaining age 50. Retirement benefits are calculated at 2.5% at age 67 for General Tier 2 members and 2.7% at age 57 for Safety Tier 2 members of the highest 36 months of pensionable compensation, as defined in GC sections 7522.20(a) and 7522.25(d) of the PEPRA, for each completed year of service. For Tier 2 members, the monthly retirement allowance is not capped. However, pensionable compensation for all Tier 2 members is limited each year by an annual cap, which is \$142,530 and \$140,424 for calendar years 2017 and 2016, respectively. Since pensionable compensation is capped, participating employers and Tier 2 members are exempt from paying contributions on pensionable compensation paid in excess of the annual cap (except for the Survivor Benefit contribution).

June 30, 2017 and 2016 (Continued)

NOTE 1 - Significant Provisions of the Plan

Membership and Benefit Eligibility | Member Retirement Benefits (Continued)

The member may elect an unmodified retirement allowance, or choose an optional retirement allowance. The unmodified retirement allowance provides the highest monthly benefit and a 60% continuance to an eligible surviving spouse/registered domestic partner or eligible child. An eligible surviving spouse or registered domestic partner is one married to or registered with the member one year prior to the effective retirement date. To be considered a post-retirement eligible spouse/domestic partner, the member must have been married/legally registered at least two years prior to death, and the spouse/domestic partner must be 55 years or older upon the member's death, and no other person may be designated in a court order as a payee. There are four optional retirement allowances the member may choose, each requiring a reduction in the unmodified retirement allowance in order to allow the member the ability to provide certain benefits to a surviving spouse, registered domestic partner, or named beneficiary having an insurable interest in the life of the member.

Terminated Member Benefits

If a member terminates before earning five years of service credit, the member forfeits the right to receive benefits and is entitled to withdraw refundable contributions made, together with accumulated interest. If the member enters a reciprocal retirement system within 180 days of terminating from SBCERA and elects to leave their accumulated contributions on deposit with SBCERA, then the member will receive a deferred retirement allowance when eligible. A member with fewer than five years of service credit may elect to leave accumulated contributions in the retirement fund indefinitely pursuant to GC section 31629.5. If a member terminates after five years of service credit, the member may elect to withdraw the refundable contributions, including interest earned, or leave the accumulated deposits in the retirement fund and be granted a deferred retirement allowance at the time the member would have been entitled to the allowance if service had been continued. The acceptance of a refund payment cancels the individual's rights and benefits in SBCERA.

Death and Disability Benefits

The Plan provides death benefits to beneficiaries of members, and these benefits are governed by Articles 12, 15, and 15.6 of the CERL. In accordance with applicable California law, a surviving spouse/domestic partner, or minor children, even if not the named beneficiary, may have certain rights superseding the rights of the named beneficiary.

June 30, 2017 and 2016 (Continued)

NOTE 1 – Significant Provisions of the Plan

Death and Disability Benefits (Continued)

Death before Retirement with Less than Five Years of Service Credit

If a member with less than five years of service credit dies as a result of a non-work related incident, the member's designated beneficiary will receive the member's refundable retirement contributions plus accumulated interest earned. In addition, the beneficiary will receive one month's compensation for each completed year the member served to a maximum of 50% of annual compensation pursuant to GC section 31781. If the member established reciprocity with another public pension plan, SBCERA will coordinate benefits with the last public employer, pursuant to GC sections 31839 and 31840.

Death before Retirement with More than Five Years of Service Credit

A member who dies after earning at least five years of service credit, but whose death is not job-related, is entitled to leave the eligible spouse/registered domestic partner (or any eligible children) a monthly payment equal to 60% of the amount that would have been paid had the member retired with a non-service connected disability. If the beneficiary is other than a spouse/registered domestic partner or dependent child, the beneficiary receives a lump sum payment of the refundable retirement contributions plus accumulated interest earned. In addition, the beneficiary would receive one month's compensation for each completed year the member served to a maximum of six months pursuant to GC section 31781. If the member established reciprocity with another public pension plan, SBCERA will coordinate benefits with the last public employer, pursuant to GC sections 31839 and 31840.

Death before Retirement Caused by Employment

If a member dies due to injury or disease arising out of or in the course of employment, the surviving spouse/registered domestic partner is eligible for a monthly allowance equal to the amount that would have been paid had the employee retired with a service connected disability at the time of death. This amount is equal to 50% of the individual's final monthly compensation. If a Safety member dies while in the performance of duty, the spouse/registered domestic partner will receive an additional lump-sum payment equal to one year's salary. Furthermore, an additional death benefit of 25% of the annual death allowance may be payable for one eligible child, and increases to 40% for two eligible children, or 50% for three or more eligible children if the death qualifies pursuant to GC section 31787.5. Under GC section 31787.65, the final compensation upon which the additional death payment is calculated may be increased any time current active members, in the same classification as the deceased member, receive a compensation increase. The final compensation will be subject to these increases until the earlier of the death of the surviving spouse or eligible children, or the date that the deceased member would have attained the age of 50 years.

June 30, 2017 and 2016 (Continued)

NOTE 1 – Significant Provisions of the Plan

Death and Disability Benefits (Continued)

Death after Retirement

If the unmodified retirement option is chosen as part of a service retirement, the eligible spouse/registered domestic partner will receive 60% of the retiree's monthly pay for the remainder of the spouse/registered domestic partner's life. The benefit increases to 100% if the member retired with a service connected disability. The spouse/registered domestic partner's eligibility in the case of a service retirement is determined by whether the marriage/registered domestic partnership occurred at least one year prior to retirement. Alternatively for service retirement, under GC section 31786.1, the eligibility is determined based on whether the marriage/registered domestic partnership occurred at least two years prior to the date of death of the member and the spouse/registered domestic partner has attained the age of 55 years on or prior to the date of death of death of the member. However, in the case of a service-connected disability, the spouse/registered domestic partner at least one day prior to retirement pursuant to GC section 31786. A burial allowance of \$1,000 is also payable to the deceased retiree's beneficiary or estate (\$250 of this amount is discretionary, subject to the availability of funds in the Burial Allowance Reserve).

If unmarried minor children are eligible and the unmodified option was selected at retirement, the total benefit received is 60% of the retiree's monthly compensation which would be divided amongst the unmarried children (if more than one). The benefit continues until the unmarried child/children reach age 18 or marry, whichever comes first. If the child/children remain unmarried and are enrolled as full-time students in an accredited school, the benefit will continue up to the age of 22.

If one of the four modified retirement options is chosen by the member as part of a service retirement, the monthly allowance is reduced for the retiree's lifetime and the eligible beneficiary will receive either a lump-sum of the unused member contributions, 100% of the reduced monthly allowance for the life of the eligible beneficiary, 50% of the reduced monthly allowance for the life of the eligible beneficiary, or a percentage of the monthly allowance. The type of reduction is dependent on the election made by the member and is approved by the Board, upon the advice of SBCERA's independent actuary.

Survivor Benefits

The Plan provides a General member Survivor Benefit to an eligible spouse/registered domestic partner, eligible dependent children and eligible dependent parents, if the active General member had been a member continuously for at least 18 months immediately prior to death, pursuant to GC section 31855.12.

June 30, 2017 and 2016 (Continued)

NOTE 1 – Significant Provisions of the Plan

Death and Disability Benefits (Continued)

Disability Benefits

The Plan provides disability benefits to eligible members, and these benefits are governed by Article 10 of the CERL.

An active member, who is found by the Board to be permanently incapacitated as a result of a service connected injury or illness, arising out of or in the course of the member's employment, is paid an annual disability allowance equal to the greater of 50% of the employee's final average compensation or the normal service retirement benefits accumulated by the member as of the date of the disability retirement. A member, who is found by the Board to be permanently incapacitated as a result of a non-service connected injury or illness, which does not arise out of or in the course of the member's employment, is paid a monthly allowance determined by their entry date. If the member entered the system on or after January 1, 1981, pursuant to GC section 31727.7, the benefit is 20% of final average compensation for five years of service credit and 2% for each additional whole year of service credit thereafter, up to a maximum of 40% of final average compensation. For members who entered the system prior to January 1, 1981, the non-service connected monthly disability benefit is one-third of the member's final average compensation. For all members, regardless of when they entered the system, if the service retirement benefit is higher, the member would be paid that amount.

Cost-of-Living Adjustments

Pursuant to GC section 31870, an automatic cost-of-living adjustment is provided based on changes in the local region Consumer Price Index (CPI) up to a maximum of 2% per year. Any increase greater than 2% is "banked" and may be used in years when the CPI is less than 2%. In addition, there is a one-time 7% increase at retirement for members hired before August 19, 1975 pursuant to Article 16.6 of the CERL.

Participating Employers

A district may become a participating employer in SBCERA pursuant to GC section 31557. A participating employer is eligible to withdraw from SBCERA pursuant to GC section 31564. The terminating employer remains liable to SBCERA for the employer's share of any unfunded actuarial liability of the Plan, which is attributable to the employees of the withdrawing employer who either have retired or will retire from the Plan. The liability is determined by SBCERA's actuary pursuant to GC section 31564.2.

June 30, 2017 and 2016 (Continued)

NOTE 1 - Significant Provisions of the Plan

Participating Employers (Continued)

Three employers have withdrawn from SBCERA and two remain liable for their unfunded actuarial liability at June 30, 2017. On June 30, 2012, San Bernardino International Airport Authority (SBIAA) and the Inland Valley Development Agency (IVDA) withdrew from SBCERA and subsequently entered into a payment agreement with SBCERA in September 2013 to pay their unfunded actuarial liability of \$3.6 million and \$4.4 million, respectively. SBIAA and IVDA requested the payments be first applied to SBIAA until their liability was paid in full in August 2015. On May 4, 2013, Rim of the World Recreation and Park District (Rim) withdrew from SBCERA and subsequently entered into a payment agreement with SBCERA in September 2013 to pay their distribution of the World Recreation and Park District (Rim) withdrew from SBCERA and subsequently entered into a payment agreement with SBCERA in February 2014 to pay their unfunded actuarial liability of \$669 thousand.

See below for a summary of the amounts due from withdrawn employers as of June 30, 2017 and 2016.

Due From Withdrawn Employers

As of June 30, 2017 and 2016 (Amounts in Thousands)

Employer	alance 1, 2016	Addi	tions	Ded	uctions	alance 30, 2017
IVDA	\$ 3,204	\$	-	\$	-	\$ 3,204
Rim	586		-		(34)	552
TOTAL	\$ 3,790	\$	-	\$	(34)	\$ 3,756

Employer	alance 1, 2015	Addi	tions	De	ductions	alance 30, 2016
SBIAA	\$ 390	\$	-	\$	(390)	\$ -
IVDA	4,417		-		(1,213)	3,204
Rim	619		-		(33)	586
TOTAL	\$ 5,426	\$	-	\$	(1,636)	\$ 3,790

June 30, 2017 and 2016 (Continued)

NOTE 2 – Summary of Significant Accounting Policies

The following are the significant accounting policies followed by SBCERA:

Basis of Accounting

The financial statements are prepared using the accrual basis of accounting and in accordance with accounting principles generally accepted in the United States of America (U.S.) known as Generally Accepted Accounting Principles (GAAP), under which revenues are recognized when earned and deductions are recorded when the liability is incurred. Employer and member contributions are recognized as revenues when due, pursuant to statutory requirements. Contributions are recorded in the period the related salaries are earned and become measurable pursuant to statutory or contractual requirements. Investment income is recognized as revenue when earned. The net appreciation/(depreciation) in fair value of investments held by SBCERA is recorded as an increase/(decrease) to investment income based on the valuation of investments at year-end, which includes both realized and unrealized gains and losses on investments. Retirement benefits and refunds are recognized when currently due and payable in accordance with the terms of the Plan. Other expenses are recognized when the corresponding liabilities are incurred.

Cash

Cash includes cash on hand (petty cash), deposits with a financial institution and deposits with a pooled account managed by the San Bernardino County Treasurer. Refer to Note 7 – Deposits and Investments (see section for Cash and Deposits), for further information.

Investments

SBCERA is authorized by GC sections 31594 and 31595 to invest in any form or type of investment deemed prudent by the Board and does so through the *Investment Plan, Policy and Guidelines* established by the Board. The assets of the Plan are held for the exclusive purpose to provide benefits to members and their beneficiaries and to defray reasonable expenses of administering SBCERA. The Board is required by statute to use care, skill, prudence, and diligence to diversify the investments of the Plan 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. Refer to Note 7 – Deposits and Investments (see section for Investments), for further information.

June 30, 2017 and 2016 (Continued)

NOTE 2 – Summary of Significant Accounting Policies

Basis of Accounting | Investments (Continued)

Plan investments are reported at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value for investments of publicly traded securities is stated at fair value based upon closing sales prices reported on recognized securities exchanges on the last business day of the period or for listed securities having no sales reported and for unlisted securities, based upon last reported bid prices. All purchases and sales of securities are accounted for on a trade date basis and dividends declared but not received are accrued on the ex-dividend date. Realized gains or losses of securities are determined on the basis of average cost.

Fair value for investments in limited partnerships and/or commingled funds of debt securities, equity securities, real estate, private equity, commodities, infrastructure, and other alternatives is based on fund share price or percentage of ownership, provided by the fund manager or general partner, which is based on net asset value as determined by the fund manager or general partner. Fair value for these investments is reported by the fund manager and/or general partner on a monthly and/or quarterly basis and is supported by annual financial statements which are audited by an independent third party accountant. Where fair value information as of June 30, 2017 and 2016 was not available at the time of these financial statements due to timing issues, SBCERA has estimated fair value by using the most recent fair value information available from the fund manager/general partner and adding any contributions and/or deducting any distributions to/from the investment from the date of the most recent fair value information to June 30, 2017 and 2016.

Fair value for investments in separately owned real estate is based on independent appraisals obtained every three years along with quarterly valuations performed by SBCERA's individual real estate advisors in accordance with the Real Estate Information Standards of the National Council of Real Estate Investment Fiduciaries.

The allocation of investment assets within SBCERA's portfolio is approved by the Board as outlined in the *Investment Plan, Policy and Guidelines.* Plan assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status for the benefits provided through the Plan. The table on the next page provides the Board's adopted *Asset Allocation* policy as of June 30, 2017 and 2016, respectively.

June 30, 2017 and 2016 (Continued)

NOTE 2 – Summary of Significant Accounting Policies

Basis of Accounting | Investments (Continued)

Asset Allocation Policy

As of June 30, 2017 and 2016

Asset Class	Target Allocation
Domestic equity	13.00%
International equity	15.00%
Domestic fixed income	15.00%
Global fixed income	18.00%
Private equity	16.00%
Real estate	9.00%
Absolute return	7.00%
Timber	2.00%
Infrastructure	1.00%
Commodities	2.00%
Short-term cash	2.00%
TOTAL	100.00%

Derivatives

The Plan uses financial instruments such as derivatives and similar transactions to gain exposure to various financial markets and reduce its exposure to certain financial market risks for purposes of investments only. The financial instruments are valued at fair value and, as such, gains and losses are recognized daily, based on changes in their fair value. These changes are reflected as net appreciation/(depreciation) in fair value of investments on the Statements of Changes in Fiduciary Net Position. The use of these financial instruments exposes the Plan to counter-party credit risk and to market risk associated with a possible adverse change in interest rates, equity values, and currency movement. The Plan may have additional exposure to derivative instruments through investments in commingled funds whose strategies may include the use of derivatives to gain exposure to various financial markets and reduce its exposure to certain financial market risks. Refer to Note 7 – Deposits and Investments (see section for Derivatives), for further information.

June 30, 2017 and 2016 (Continued)

NOTE 2 – Summary of Significant Accounting Policies

Basis of Accounting (Continued)

Reserves

Employer and member contributions are allocated to various reserve accounts based on actuarial determinations. Pursuant to the Board's *Interest Crediting Procedures and Undesignated Excess Earnings Allocation* policy, funds in excess of reserve requirements are allocated first to prior year shortfalls (the Contra Account), then 3% of the fair value of assets are set aside as a contingency reserve for future losses and any excess is then allocated to the Employer Current Service Reserve, maintained as an Additional Contingency Reserve, or held as undesignated excess earnings. Refer to Note 5 – Reserves, for further information.

Income Taxes

SBCERA is a qualified plan under IRC section 401(a) and is exempt from federal income taxes under IRC section 501(a). Accordingly, no provision for income taxes has been made in the accompanying financial statements.

Administrative Expenses

The Board annually adopts the operating budget for the administration of SBCERA. The administrative expenses are charged against the earnings of the Plan. Pursuant to GC section 31580.2, administrative expenses incurred in any one year are not to exceed twenty-one hundredths of one percent or 0.21% of SBCERA's actuarial accrued liabilities. Actual administrative expenses did not exceed this limitation for the years ended June 30, 2017 and 2016 (see table on the next page).

Pursuant to GC sections 31522.5, 31522.7, 31580.2, 31529.9, 31596.1, and 31699.9, certain expenses are excluded from the limits described above for investment costs, actuarial service costs, legal service costs, technology costs, and fiduciary trust activities allocated to Pacific Public Partners. Refer to Note 10 – Pacific Public Partners, for further information. Therefore, investment costs were offset against investment income, and actuarial service costs, technology costs, and non-investment legal service costs are all reported on the Statements of Changes in Fiduciary Net Position as Other Expenses. Allocated costs for Pacific Public Partners are reflected on the Statements of Changes in Assets and Liabilities – Agency Fund in the Other Supplementary Information section of this report. A Schedule of Administrative and Other Expenses subject to the statutory limitation described above is also included in the Other Supplementary Information section of this report.

June 30, 2017 and 2016 (Continued)

NOTE 2 – Summary of Significant Accounting Policies

Basis of Accounting | Administrative Expenses (Continued)

Statutory Limitation for Administrative Expenses

(Amounts in Thousands)

		For the Year Ended June 30, 2017	For the Year Ended June 30, 2016
Actuarial accrued liability (AAL) ¹	a	\$ 10,214,473	\$ 9,694,825
Statutory limit for administrative expenses (AAL x 0.21%)		21,450	20,359
Actual administrative expenses subject to statutory limit	b	9,961	7,569
EXCESS OF LIMITATION OVER ACTUAL ADMINISTRATIVE EXPENSES		\$ 11,489	\$ 12,790
ACTUAL ADMINISTRATIVE EXPENSES AS A PERCENTAGE OF AAL	b/a	0.10%	0.08%

Management's Estimates

The preparation of financial statements in conformity with GAAP requires management to make certain estimates and assumptions. These affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Capital Assets

Capital assets are recorded at cost and consist of furniture, equipment, intangible assets, including computer software, and leasehold improvements. Depreciation and amortization is provided using the straight-line method over the estimated useful lives of the assets, which range from 3 to 39 years. SBCERA's capital assets are summarized on the next page as of June 30, 2017 and 2016.

(1) The AAL, as determined by the Plan's actuary each year, is used to calculate the statutory limitation for administrative expenses for the year after next. For example, the AAL as of June 30, 2015 was approved by the Board in December 2015, and was used to establish the statutory limitation for administrative expenses for the year ended June 30, 2017.

June 30, 2017 and 2016 (Continued)

NOTE 2 – Summary of Significant Accounting Policies

Basis of Accounting | Capital Assets (Continued)

Capital Assets (Amounts in Thousands)

	Balance July 1, 2016		Additions		Deletions		Balance June 30, 2017	
Furniture, equipment & leaseholds	\$	10,269	\$	160	\$	-	\$	10,429
Computer software		4,395		-		-		4,395
Accumulated depreciation ¹		(5,649)		(445)		-		(6,094)
Accumulated amortization ¹		(1,711)		(628)		-		(2,339)
TOTAL	\$	7,304	\$	(913)	\$	-	\$	6,391

	Balance July 1, 2015		Additions		Deletions		Balance June 30, 2016	
Furniture, equipment & leaseholds	\$	6,345	\$	3,924	\$	-	\$	10,269
Computer software		4,312		83		-		4,395
Accumulated depreciation ¹		(5,359)		(290)		-		(5,649)
Accumulated amortization ¹		(1,098)		(613)		-		(1,711)
TOTAL	\$	4,200	\$	3,104	\$	-	\$	7,304

(1) Depreciation and amortization expense totaled \$1.07 million and \$903 thousand for the years ended June 30, 2017 and 2016, respectively.

June 30, 2017 and 2016 (Continued)

NOTE 2 – Summary of Significant Accounting Policies

Basis of Accounting (Continued)

Effect of New Governmental Accounting Standards Board (GASB) Pronouncements

SBCERA implemented all applicable new GASB pronouncements in the years ended June 30, 2017 and 2016, as required by each statement. The most recent applicable pronouncements which have a material impact on SBCERA's financial statements are provided below.

GASB Statement No. 72 (GASB 72), *Fair Value Measurement and Application* establishes standards of accounting and financial reporting for fair value measurements. This Statement also provides guidance for applying fair value to certain investments and requires disclosures to all fair value measurements, the level of fair value hierarchy, and valuation techniques, and was effective for financial statements for periods beginning after June 15, 2015. SBCERA implemented GASB 72 for the year ended June 30, 2016 and the financial statements and the related disclosures reflect the changes as required by GASB 72 for the years ended June 30, 2017 and 2016. Refer to Note 7 – Deposits and Investments, for further information.

GASB Statement No. 82 (GASB 82), Pension Issues – An Amendment of GASB Statements No. 67, No. 68, and No. 73, which was effective for reporting periods beginning after June 15, 2016, addresses issues regarding the presentation of payroll-related measures in required supplementary information, selection of assumptions and deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes, and the classification of payments made by employers to satisfy member contribution requirements. SBCERA early implemented GASB 82 for the year ended June 30, 2016, and the changes mandated by the statement are reflected in SBCERA's financial statements and related disclosures for the years ended June 30, 2017 and 2016.

Reclassification of Financial Statements Presentation

Certain accounts presented in the year ended June 30, 2016 financial statements were reclassified to be consistent with the current year's presentation. Such reclassifications have no effect on the net increase in fiduciary net position as previously reported.

June 30, 2017 and 2016 (Continued)

NOTE 3 – Contribution Requirements

Participating employers and active members are required by statute to contribute a percentage of covered payroll to the Plan. This requirement is pursuant to GC sections 31453.5 and 31454, for participating employers, and GC sections 31621.6, 31639.25, and 7522.30 for active members. The contribution requirements are established and may be amended by the Board pursuant to Article 1 of the CERL, which is consistent with the Plan's actuarial funding policy. The contribution rates are adopted yearly, based on an annual actuarial valuation, conducted by an independent actuary, that considers the mortality, service (including age at entry into the Plan, if applicable, and tier), and compensation experience of the members and their beneficiaries, and also includes an evaluation of the Plan's assets and liabilities. Participating employers may pay a portion of the active member contributions, and active members may pay a portion of the participating employer contributions, through negotiations and bargaining agreements.

One of the funding objectives of the Plan is to establish contribution rates which, over time, will remain level as a percentage of payroll unless the Plan benefit provisions are changed. Actuarial funding is based on the Entry Age Cost method. The employer contribution rate provides for current cost (normal cost) plus a level percentage of payroll to amortize the Unfunded Actuarial Accrued Liability (UAAL). Normal cost is the annual contribution rate that, if paid annually from a member's first year of membership through the year of retirement, would accumulate to the amount necessary to fully fund the member's retirement benefit if all underlying assumptions are met. The UAAL is the difference between the Actuarial Accrued Liability and the Actuarial Value of Assets. The amortization period for the UAAL is 20 years for all combined UAAL existing through June 30, 2002, with five years of amortization remaining at June 30, 2017. Any new UAAL after June 30, 2002 is amortized over a closed 20-year period effective with that valuation.

June 30, 2017 and 2016 (Continued)

NOTE 3 - Contribution Requirements (Continued)

SBCERA's actuarial valuation for funding purposes is completed as of June 30 of each year. The rates recommended in the actuarial valuation apply to the year beginning 12 months after the valuation date. For example, the actuarial valuation dated June 30, 2015 established the contribution rates for the year ended June 30, 2017. Any shortfall or excess contributions, as a result of this implementation lag, are amortized as part of SBCERA's UAAL in the following valuation. Commencing with the June 30, 2012 valuation, any increase in UAAL resulting from Plan amendments will be amortized over its own declining 15-year period; temporary retirement incentives, including the impact of benefits resulting from additional service permitted in GC section 31641.04 (Golden Handshake) will be amortized over a declining period of up to five years. If an overfunding exists (i.e., the total of all UAAL becomes negative so that there is a surplus), such surplus and any subsequent surpluses will be considered fully amortized, and any subsequent UAAL will be amortized over 20 years as the first of a new series of amortization layers. The amortization policy components apply separately to each of SBCERA's UAAL cost sharing groups.

For funding purposes, SBCERA's actuarial valuation values the Plan's assets at fair value of assets less unrecognized gains and losses from each of the last five years. Under this method, the assets used to determine employer contribution rates take into account fair value by recognizing the differences between the actual market return and the expected market return over a five-year period.

Separate contribution rates are established by the Board for the General member survivor benefit provided by the Plan. The costs of survivor benefits are based on an annual valuation conducted by an independent actuary, and are equally shared between the participating employers and the active General members. The contribution rates are calculated to provide for the ongoing cost of this benefit, plus any amounts necessary to recognize any shortfall of reserves to the actuarial accrued liabilities associated with this benefit. For the survivor benefit valuation, the same amortization policy components as described on the previous page and above apply, except that a level dollar methodology is used instead of a level percent of payroll. Survivor Benefit contribution rates, for the years ended June 30, 2017 and 2016 are \$1.72 per biweekly employer pay period. Refer to Note 1 – Significant Provisions of the Plan (see section for Survivor Benefits), for further information.

June 30, 2017 and 2016 (Continued)

NOTE 3 – Contribution Requirements (Continued)

The tables below provide a summary of the employer and member contributions received for the years ended June 30, 2017 and 2016. Participating employers satisfied 100% of the contribution requirements for the years ended June 30, 2017 and 2016.

Employer Contributions

For the Years Ended June 30, 2017 and 2016 (Amounts in Thousands)

Contribution Type	2017 2016		
Actuarially determined contributions - employer paid	\$ 359,275	\$ 339,240	
Actuarially determined contributions - member paid	397	485	
Survivor benefit contributions	806	787	
TOTAL EMPLOYER CONTRIBUTIONS	\$ 360,478	\$ 340,512	

Member Contributions

For the Years Ended June 30, 2017 and 2016 (Amounts in Thousands)

Contribution Type	2017 2016		
Actuarially determined contributions - member paid	\$ 133,641	\$ 125,380	
Actuarially determined contributions - employer paid	5,729	8,770	
Survivor benefit contributions	806	787	
Purchase of eligible service credit	3,682	4,195	
TOTAL MEMBER CONTRIBUTIONS	\$ 143,858	\$ 139,132	

SBCERA is also a participating employer and all SBCERA employees are eligible for membership in the Plan. The employer contributions paid by SBCERA, on behalf of these employees, are funded by earnings of the Plan, pursuant to GC section 31580.2. SBCERA paid 100% of the actuarially determined contributions, in the amount of \$1.1 million and \$1.0 million, for the years ended June 30, 2017 and 2016, respectively.

June 30, 2017 and 2016 (Continued)

NOTE 3 - Contribution Requirements (Continued)

The tables below and on the next page summarize the actuarially determined, Board approved, required employer and member contribution rates in effect for the years ended June 30, 2017 and 2016. Contribution rates are expressed as a percentage of covered payroll.

Employer Contribution Rates

For the Year Ended June 30, 2017

	Tier 1 Members ¹			Tier 2 Members ¹		
Actuarial Cost Group	Normal Cost	Unfunded Actuarial Accrued Liability (UAAL)	Total	Normal Cost	Unfunded Actuarial Accrued Liability (UAAL)	Total
County General members	11.50%	10.83%	22.33%	8.37%	10.83%	19.20%
County Safety members	22.10%	28.88%	50.98%	14.03%	28.88%	42.91%
Superior Court members	11.50%	12.40%	23.90%	8.37%	12.40%	20. 77%
SCAQMD members	11.69%	21.24%	32.93%	7.66%	21.24%	28.90%
Other General members	12.88%	20.17%	33.05%	9.33%	20.17%	29.50%
Other Safety members	22.35%	49.96%	72.31%	13.21%	49.96%	63.17%

Employer Contribution Rates

For the Year Ended June 30, 2016

	Tier 1 Members ²			Tier 2 Members ²		
Actuarial Cost Group	Normal Cost	Unfunded Actuarial Accrued Liability (UAAL)	Total	Normal Cost	Unfunded Actuarial Accrued Liability (UAAL)	Total
County General members	11.50%	10.99%	22.49%	8.40%	10.99%	19.39%
County Safety members	22.06%	27.03%	49.09 %	15.22%	27.03%	42.25%
Superior Court members	11.50%	12.39%	23.89%	8.40%	12.39%	20.79%
SCAQMD members	11.73%	18.46%	30.19%	7.97%	18.46%	26.43%
Other General members	12.83%	20.48%	33.31%	9.29%	20.48%	29. 77%
Other Safety members	23.22%	45.79%	69.0 1%	12.82%	45.79%	58.6 1%

(1) Rates are in accordance with the June 30, 2015 actuarial valuation.

(2) Rates are in accordance with the June 30, 2014 actuarial valuation.

June 30, 2017 and 2016 (Continued)

NOTE 3 – Contribution Requirements (Continued)

Member Contribution Rates

For the Years Ended June 30, 2017 and 2016

	20171		2016 ²	
Actuarial Cost Group	Beginning ³	Ending ³	Beginning ³	Ending ³
General members – Tier 1	7.89%	14.86%	7.81%	14.85%
Safety members – Tier 1	10.63%	17.60%	10.62%	17.57%
County General and Superior Court members – Tier 2	7.73%	8.37%	7.70%	8.40%
County Safety members – Tier 2	13.56%	14.03%	14.70%	15.22%
SCAQMD members – Tier 2	7.06%	7.66%	7.30%	7.97%
Other General members – Tier 2	8.59%	9.33%	8.50%	9.29%
Other Safety members – Tier 2	12.76%	13.21%	12.38%	12.82%

NOTE 4 – Net Pension Liability of Participating Employers

The components of the net pension liability of participating employers as of June 30, 2017 and 2016 are as follows:

Net Pension Liability of Participating Employers

(Amounts in Thousands)

		As of June 30, 2017	As of June 30, 2016
Total pension liability	a	\$ 11,923,945	\$ 10,665,212
Plan fiduciary net position	b	9,288,441	8,196,974
NET PENSION LIABILITY	a-b	\$ 2,635,504	\$ 2,468,238
PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY	b/a	77.90%	76.86%

(1) Rates are in accordance with the June 30, 2015 actuarial valuation.

(2) Rates are in accordance with the June 30, 2014 actuarial valuation.

(3) Tier 1 rates are based on age at entry: Beginning rate shown is the lowest rate for entry age 16, and the ending rate shown is the highest entry age rate. For Tier 2 rates, the beginning rate is the non-refundable rate and the ending rate is the refundable rate (50% of normal cost). For Tier 2 members, the non-refundable rate is only available if an employer Memorandum of Understanding (MOU) provided for it pursuant to PEPRA. Once that MOU expires, the non-refundable rate is no longer available as PEPRA does not provide for a non-refundable rate.

June 30, 2017 and 2016 (Continued)

NOTE 4 - Net Pension Liability of Participating Employers (Continued)

The net pension liability of participating employers was measured as of June 30, 2017 and 2016 and determined based upon the total pension liability from actuarial valuations as of June 30, 2017 and 2016, respectively.

Actuarial Assumptions

The actuarial assumptions used to determine the total pension liability as of June 30, 2017 and 2016 were based on the results of the June 30, 2017 and 2014 Actuarial Experience Studies (experience study), respectively, which covered the periods from July 1, 2013 through June 30, 2016 for the 2017 experience study, and from July 1, 2010 through June 30, 2013 for the 2014 experience study. They are the same assumptions used in the June 30, 2017 and 2016 actuarial valuations, respectively, which is used to determine future contribution rates for funding purposes. Key assumptions used in the actuarial valuations are presented below.

Valuation Date	June 30, 2017	June 30, 2016
Actuarial Experience Study	3 Year Period Ended June 30, 2016	3 Year Period Ended June 30, 2013
Actuarial Assumptions:		
Discount Rate ¹	7.25%	7.50%
Inflation	3.00%	3.25%
Projected Salary Increases ²	General: 4.50% to 14.50% Safety: 4.70% to 14.50%	General: 4.60% to 13.75% Safety: 4.55% to 13.75%
Cost-of-Living Adjustments	Contingent upon consumer price index with a 2.00% maximum	Contingent upon consumer price index with a 2.00% maximum
Administrative Expenses	0.70% of payroll	0.60% of payroll

Key Assumptions Used in Valuation of Total Pension Liability

The notes to the required supplementary information present multiyear information for changes made to actuarial assumptions.

Includes inflation at 3.00% and 3.25% for the years ended June 30, 2017 and 2016, respectively, and is net of pension plan investment expense.
 Includes inflation at 3.00% and 3.25% for the years ended June 30, 2017 and 2016, respectively, real "across the board" salary increases of 0.50%, plus merit and promotional increases. Amounts vary by service.

June 30, 2017 and 2016 (Continued)

NOTE 4 - Net Pension Liability of Participating Employers (Continued)

Mortality Rates

Mortality rates used in the latest actuarial valuation are based on the RP 2014 Healthy Annuitant Mortality Table projected generationally using the two-dimensional mortality improvement scale MP-2016. For healthy General male members, the ages are set forward one year. No adjustment is made for healthy General female members. For all healthy and disabled Safety members, the ages are set back one year. For all General members that are disabled, the ages are set forward seven years. Beneficiaries are assumed to have the same mortality as a General member of the opposite sex who is receiving a service (non-disability) retirement.

Mortality rates used in the June 30, 2016 valuation are based on the RP-2000 Combined Healthy Mortality Table projected 20 years using Projection Scale BB. For healthy General members, no adjustments are made. For healthy Safety members, the ages are set back two years for males and one year for females. For General members that are disabled, the ages are set forward seven years for males and set forward eight years for females. For Safety members that are disabled, the ages are set forward two years for males and females. Beneficiaries are assumed to have the same mortality as a General member of the opposite sex who is receiving a service (non-disability) retirement.

Long-Term Expected Real Rate of Return

The long-term expected rate of return on Plan investments was determined using a building block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. This information is combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, and by adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocations approved by the Board, and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before deducting investment expenses, used in the derivation of the long-term expected investment rate of return assumptions as of June 30, 2017 and 2016, are summarized in the table on the next page. This information will change every three years based on the triennial actuarial experience study.

June 30, 2017 and 2016 (Continued)

NOTE 4 – Net Pension Liability of Participating Employers

Long-Term Expected Real Rate of Return (Continued)

Long-Term Expected Real Rate of Return As of June 30, 2017 and 2016

		June 30, 2017		June 30, 2016		
Asset Class	Investment Classification	Target Allocation ¹	Long-Term Expected Real Rate of Return (Arithmetic)	Target Allocation ¹	Long-Term Expected Real Rate of Return (Arithmetic)	
Large cap U.S. equity	Domestic common and preferred stock	8.00%	5.61%	5.00%	5.94%	
Small cap U.S. equity	Domestic common and preferred stock	2.00%	6.37%	2.00%	6.50%	
Developed international equity	Foreign common and preferred stock	6.00%	6.96%	6.00%	6.87%	
Emerging market equity	Foreign common and preferred stock	6.00%	9.28%	6.00%	8.06%	
U.S. core fixed income	U.S. government and municipals/corporate bonds	2.00%	1.06%	2.00%	0.69%	
High yield/credit strategies	Corporate bonds/foreign bonds	13.00%	3.65%	13.00%	3.10%	
Global core fixed income	Foreign bonds	1.00%	0.07%	1.00%	0.30%	
Emerging market debt	Emerging market debt	6.00%	3.85%	6.00%	4.16%	
Real estate	Real estate	9.00%	4.37%	9.00%	4.96%	
International credit	Foreign alternatives	11.00%	6.75%	10.00%	6.76%	
Absolute return	Domestic alternatives/foreign alternatives	13.00%	3.56%	13.00%	2.88%	
Real assets	Domestic alternatives/foreign alternatives	5.00%	6.35%	6.00%	6.85%	
Long/short equity	Domestic alternatives/foreign alternatives	0.00%	0.00%	3.00%	4.86%	
Private equity	Domestic alternatives/foreign alternatives	16.00%	8.47%	16.00%	9.64%	
Cash and equivalents	Short-term cash investment funds	2.00%	(0.17%)	2.00%	(0.03%)	
TOTAL		100.00%		100.00%		

(1) For actuarial purposes, target allocations only change once every three years based on the triennial actuarial experience study.

June 30, 2017 and 2016 (Continued)

NOTE 4 - Net Pension Liability of Participating Employers (Continued)

Discount Rate

The discount rates used to measure the total pension liability were 7.25% and 7.50% for the years ended June 30, 2017 and 2016, respectively. The projection of cash flows used to determine the discount rates assumed that contributions from participating employers and active members are made at the actuarially determined contribution rates. For this purpose, only employer and member contributions that are intended to fund benefits of current members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs of future members and their beneficiaries, as well as projected contributions from future members, are not included. Based on those assumptions, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current members. Therefore, the long-term expected rate of return on Plan investments of 7.25% and 7.50% were applied to all periods of projected benefit payments to determine the total pension liability as of June 30, 2017 and 2016, respectively.

The table below presents the net pension liability of participating employers calculated using the discount rates of 7.25% and 7.50% as of June 30, 2017 and 2016, respectively, as well as what the net pension liability of participating employers would be if it were calculated using a discount rate that is 1.00% lower or 1.00% higher than the current rate.

Sensitivity of Net Pension Liability to Changes in the Discount Rate

As of June 30,	, 2017	and 2016
(Amounts	in Tho	usands)

Net Pension Liability	1.00% Decrease 6.25%	Current Discount Rate 7.25%	1.00% Increase 8.25%
June 30, 2017	\$ 4,284,646	\$ 2,635,504	\$ 1,279,047
	1.00% Decrease	Current Discount Rate	1.00% Increase
Net Pension Liability	6.50%	7.50%	8.50%
June 30, 2016	\$ 3,871,170	\$ 2,468,238	\$ 1,305,692

June 30, 2017 and 2016 (Continued)

NOTE 5 – Reserves

All employer and member contributions are allocated to various reserve accounts based on the recommendation of the Plan's actuary, as approved by the Board, and where applicable, as required by the CERL. SBCERA currently does not set aside a separate reserve for purposes of benefit increases or reduced employer contributions. All of the current reserves are available to pay for existing pensions or for Plan administration. All reserves, except the burial allowance reserve, are expected to be fully funded based on actuarially determined contributions. Set forth below are descriptions of the purpose of each reserve account.

Member deposit reserve – the reserve represents the total accumulated contributions of members.

Employer current service reserve – the reserve includes the total accumulated contributions of the employer held for the benefit of non-retired General and Safety members on account of service rendered as a member of the Plan.

Contra account – the contra account represents the amount of interest credited to the reserve accounts that have not been paid for out of current or excess earnings. A balance in this account is the result of applying the full interest crediting policy of the Board and will be replenished in subsequent periods as sufficient earnings allow.

Pension reserve – the reserve represents total accumulated contributions of the employer held for the benefit of retired members on account of service rendered as a member of the retirement system less the pension payments made to retired members.

Cost-of-living reserve – the reserve represents the accumulated contributions of the employer to be used to pay cost-of-living payments.

Annuity reserve – the reserve includes the total accumulated contributions of retired members less the annuity payments made to the members.

Supplemental disability reserve – the reserve represents the accumulated contributions of the employer to pay supplemental disability payments.

Survivor benefit reserve – the reserve represents the accumulated contributions of the employer and members to be used to pay retirees' survivor benefit allowances.

Burial allowance reserve – the reserve represents the excess earnings allocated by the Board to pay retirees' discretionary burial allowance. In 1985, the Board adopted GC section 31789.13 which provides an additional \$250 burial allowance to retired SBCERA members.

June 30, 2017 and 2016 (Continued)

NOTE 5 - Reserves (Continued)

For funding purposes, the various reserve accounts comprise net position – restricted for pensions under the five-year smoothed market asset valuation method as follows:

Reserves

As of June 30, 2017 and 2016 (Amounts in Thousands)

	2017	2016
Valuation Reserves		
Member deposit reserve	\$ 1,345,262	\$ 1,288,669
Employer current service reserve	2,398,395	2,265,676
Contra account	(2,689,760)	(2,476,403)
Pension reserve	4,327,170	4,022,989
Cost-of-living reserve	1,913,071	1,752,232
Annuity reserve	2,017,325	1,813,068
Supplemental disability reserve	8,194	8,639
Survivor benefit reserve	65,633	61,357
TOTAL RESERVED FOR PENSIONS	9,385,290	8,736,227
Non-Valuation Reserves		
Burial allowance reserve	686	732
SUBTOTAL – NON-VALUATION RESERVES	686	732
TOTAL RESERVES (SMOOTHED MARKET ACTUARIAL VALUE)	9,385,976	8,736,959
Net unrecognized losses	(97,535)	(539,985)
NET POSITION – RESTRICTED FOR PENSIONS INCLUDING NON-VALUATION RESERVES, AT FAIR VALUE	\$ 9,288,441	\$ 8,196,974

June 30, 2017 and 2016 (Continued)

NOTE 6 – Securities Lending

SBCERA, pursuant to a Securities Lending Authorization Agreement, has authorized State Street Bank and Trust Company (State Street) to act as SBCERA's agent in lending the Plan's securities to approved borrowers. State Street, as agent, enters into Securities Loan Agreements with borrowers.

State Street lent, on behalf of SBCERA, certain securities of the Plan held by State Street as custodian and received cash or other collateral including securities issued or guaranteed by the U.S. Government. The types of securities loaned are U.S. Government obligations and other municipals, domestic equity, domestic fixed income, international equity, and international fixed income securities. State Street does not have the ability to pledge or sell collateral securities delivered absent a borrower default. Borrowers are required to deliver collateral for each loan equal to 102% for domestic loans and 105% for international loans, of the fair value of the loaned securities plus accrued income, for the years ended June 30, 2017 and 2016.

SBCERA did not impose any restrictions during the two-year period ended June 30, 2017 on the amount of loans that State Street made on its behalf. Pursuant to the Securities Lending Authorization Agreement, State Street had an obligation to indemnify SBCERA in the event of default by a borrower. There were no failures by any borrowers to return loaned securities or pay distributions thereon during the same two-year period that resulted in a declaration or notice of default of the borrower.

During the years ended June 30, 2017 and 2016, SBCERA and the borrowers maintained the right to terminate securities lending transactions upon notice. The cash collateral received on each loan was invested, together with the cash collateral of other qualified tax-exempt plan lenders, in a collective investment fund comprised of a liquidity pool. The pool is not rated. All securities in this pool with maturities of 13 months or less are rated at least "A1", "P1", or "F1", and maturities in excess of 13 months are rated at least "A-" or "A3", by at least two nationally recognized statistical rating organizations, or if unrated, have been determined by the bank to be of comparable quality. As of June 30, 2017, the liquidity pool had an average duration of 29 days, and a weighted average final maturity of 108 days. As of June 30, 2016, the liquidity pool had an average duration of 43 days, and a weighted average final maturity of 83 days. Because the securities lending transactions were terminable at will, their duration did not generally match the duration of the investments made with the cash collateral received from the borrower.

On June 30, 2017, SBCERA had no credit risk exposure to borrowers. As of June 30, 2017, the fair value of securities on loan was \$112.72 million, with the fair value of cash collateral received for the securities on loan of \$103.71 million, and non-cash collateral of \$11.86 million. As of June 30, 2016, the fair value of securities on loan was \$118.70 million, with the fair value of cash collateral received for the securities on loan of \$95.46 million, and non-cash collateral of \$24.88 million.

June 30, 2017 and 2016 (Continued)

NOTE 7 – Deposits and Investments

Cash and Deposits

The Board is authorized by the CERL to deposit monies for the purpose of paying benefits and administrative costs. Operational cash accounts are held with a financial institution in the amount of \$4.73 million and \$6.98 million at June 30, 2017 and 2016, respectively. Except for a nominal balance, operational cash accounts held with a financial institution are swept into a pooled money market fund which invests in repurchase agreements and U.S. Treasuries. Operational cash accounts are also held with the County of San Bernardino Treasurer's Investment Pool (SBCIP) in the amount of \$1.03 million and \$1.47 million at June 30, 2017 and 2016, respectively. The SBCIP is an external investment pool and is not registered with the Securities and Exchange Commission. At June 30, 2017 and 2016, the SBCIP has a weighted average maturity of 341 and 311 days, respectively. The SBCIP is not rated. The deposits in the SBCIP are reported at fair value. For further information regarding the SBCIP, refer to the County of San Bernardino CAFR.

Investments

The Board is authorized by the CERL to invest in any form or type of investment deemed prudent in the informed opinion of the Board. The CERL vests the Board with exclusive control over SBCERA's investment portfolio. The Board has adopted its *Investment Plan, Policy and Guidelines*, which provide the framework for the management of SBCERA's investments, in accordance with applicable local, state, and federal laws. The Board members exercise authority and control over the management of SBCERA's assets by setting policy, which the investment staff executes either internally or through the use of external prudent experts. SBCERA retains investment managers specializing in specific strategies and/or investments within a particular asset class. Investment managers are subject to the guidelines and controls established in SBCERA's *Investment Plan, Policy and Guidelines*, various types of investment manager agreements, and other applicable policies and documents.

June 30, 2017 and 2016 (Continued)

NOTE 7 – Deposits and Investments

Investments (Continued)

The Investment Plan, Policy and Guidelines encompass the following:

- Purpose and Core Beliefs
- Governing Law
- Functional Organization and Responsibilities
- General Objectives and Plan Policies
- Asset Allocation Plan and Objectives
- Investment Structure
- Investment Program Implementation
- Review and Modification of Investment Plan
- Emergency Actions

Derivatives

As described in Note 2 – Summary of Significant Accounting Policies (see section for Derivatives), SBCERA invests in investment derivative instruments, and did not enter into any synthetic guaranteed investment contracts or hedging derivative instruments. SBCERA does post collateral for investment derivatives for speculation purposes pursuant to clearing requirements or swap agreements.

June 30, 2017 and 2016 (Continued)

NOTE 7 – Deposits and Investments

Derivatives (Continued)

The following table provides a summary of the derivative instruments outstanding as of June 30, 2017.

Derivative Instruments Outstanding

As of June 30, 2017 (Amounts in Thousands)

	Changes in Fair	Value ⁴	Fair Value at June 30	, 2017	
Investment Derivatives	Classification	Amount ¹	Classification	Amount ²	Notional ³
Commodity futures long	Investment income ⁵	\$ 254	Short-term cash investment funds	\$ -	-
Commodity futures short	Investment income ⁵	3,115	Short-term cash investment funds	-	-
Credit default swaps bought	Investment income ⁵	(31,014)	Domestic alternatives	(43,528)	\$ 990,530
Credit default swaps written	Investment income ⁵	23	Domestic alternatives	-	\$ -
Equity options bought	Investment income ⁵	(8,290)	Domestic alternatives	11,620	2,649
Equity options written	Investment income ⁵	19,030	Securities options payable	(2,812)	(5,298)
Fixed income futures long	Investment income ⁵	(3,768)	Domestic alternatives	-	260,300
Fixed income futures short	Investment income ⁵	13,620	Domestic alternatives	-	(492,778)
Fixed income options bought	Investment income ⁵	21,867	Domestic alternatives	24,937	1,072,051
Foreign currency futures short	Investment income ⁵	(272)	Domestic alternatives	-	(10,625)
Foreign currency options bought	Investment income ⁵	-	Domestic alternatives	1,002	60,000
Futures options bought	Investment income ⁵	290	Domestic alternatives	1,631	704
FX forwards	Investment income ⁵	3,639	Foreign common and preferred stock	(794)	\$ 249,389
Index futures long	Investment income ⁵	322,294	Domestic alternatives	-	14,918
Index options bought	Investment income ⁵	(55,451)	Domestic alternatives	20,487	516
Index options written	Investment income ⁵	34,773	Securities options payable	(10,419)	(333)
Pay fixed interest rate swaps	Investment income ⁵	(1)	Domestic alternatives	-	\$ -
Receive fixed interest rate swaps	Investment income ⁵	(6)	Domestic alternatives	-	\$ -
Total return swaps bond	Investment income ⁵	(47,904)	Domestic alternatives	2,466	\$ 500,000
Total return swaps equity	Investment income ⁵	3,147	Domestic alternatives	-	\$ -
TOTAL		\$ 275,346		\$ 4,590	

(1) Negative values refer to losses.

(2) Negative values refer to liabilities.

(3) Notional may be a dollar amount or size of underlying investments; negative values refer to short positions.

(4) Excludes futures margin payments.

(5) Investment income represents the net appreciation/(depreciation) in fair value of investments for securities and alternative investments.

June 30, 2017 and 2016 (Continued)

NOTE 7 – Deposits and Investments

Derivatives (Continued)

The following table provides a summary of the derivative instruments outstanding as of June 30, 2016.

Derivative Instruments Outstanding

As of June 30, 2016 (Amounts in Thousands)

	Changes in Fa	ir Value ⁴	Fair Value at June	30, 2016	
Investment Derivatives	Classification	Amount ¹	Classification	Amount ²	Notional ³
Credit default swaps bought	Investment income ⁵	\$ 19,752	Domestic alternatives	\$ (21,716)	\$ 808,350
Equity options bought	Investment income ⁵	(33,675)	Domestic alternatives	30,955	10,173
Equity options written	Investment income ⁵	12,252	Securities options payable	(22,229)	(19,230)
Fixed income futures long	Investment income ⁵	7,266	Domestic alternatives	-	189,200
Fixed income futures short	Investment income ⁵	(43,673)	Domestic alternatives	-	(346,486)
Fixed income options bought	Investment income ⁵	(37,008)	Domestic alternatives	12,816	981,634
Foreign currency futures short	Investment income ⁵	159	Domestic alternatives	-	(7,375)
FX forwards	Investment income ⁵	1,158	Foreign common and preferred stock	2,315	\$ 372,781
Index futures long	Investment income ⁵	(88,254)	Domestic alternatives	-	15,648
Index futures short	Investment income ⁵	517	Domestic alternatives	-	(77)
Index options bought	Investment income ⁵	5,983	Domestic alternatives	1,192	24
Index options written	Investment income ⁵	(3,500)	Securities options payable	(19,622)	(5,164)
Total return swaps bond	Investment income ⁵	(8,986)	Domestic alternatives	(3,872)	\$ 586,355
Total return swaps equity	Investment income ⁵	(7,347)	Domestic alternatives	5,507	\$ (172,302)
TOTAL		\$ (175,356)		\$ (14,654)	

(1) Negative values refer to losses.

(2) Negative values refer to liabilities.

(3) Notional may be a dollar amount or size of underlying investments; negative values refer to short positions.

(4) Excludes futures margin payments.

⁽⁵⁾ Investment income represents the net appreciation/(depreciation) in fair value of investments for securities and alternative investments.

June 30, 2017 and 2016 (Continued)

NOTE 7 – Deposits and Investments

Derivatives (Continued)

The counterparty credit ratings of SBCERA's non-exchange traded investment derivative instruments outstanding and subject to loss as of June 30, 2017 and 2016 are as follows:

Credit Quality Ratings (S&P) of Counterparties for Investment Derivatives

Counterparty Name	Total	Fair Value	S&P Credit Rating
Barclays Bank	\$	9,242	A-
Commonwealth Bank of Australia Sydney		100	AA-
HSBC Bank		91	AA-
Royal Bank of Canada		165	AA-
State Street Bank and Trust Company		348	AA-
UBS AG		184	A+
TOTAL	\$	10,130	

As of June 30, 2017 (Amounts in Thousands)

Credit Quality Ratings (S&P) of Counterparties for Investment Derivatives

As of June 30, 2016 (Amounts in Thousands)

Counterparty Name	Total Fair Value	S&P Credit Rating
Barclays	\$ 3,456	A-
Barclays Bank	4,889	A-
BNP Paribas	1,897	А
Commonwealth Bank of Australia Sydney	818	AA-
Deutsche Bank Securities	3,610	BBB+
National Australia Bank Limited	886	AA-
Royal Bank of Canada	847	AA-
State Street Bank and Trust Company	2,356	AA-
Westpac Banking Corporation	757	AA-
TOTAL	\$ 19,516	

June 30, 2017 and 2016 (Continued)

NOTE 7 – Deposits and Investments

Derivatives (Continued)

The maximum exposure SBCERA would face in case of default of all counterparties is \$10.13 million and \$19.52 million as of June 30, 2017 and 2016, respectively. At June 30, 2017 and 2016, SBCERA did not have any significant exposure to counterparty credit risk with any single party. SBCERA does not have any specific policies relating to the posting of collateral or master netting agreements.

As of June 30, 2017 and 2016, SBCERA is exposed to interest rate risk on its investments in various swap arrangements and fixed income options based on daily interest rates for LIBOR (London Interbank Offered Rate), EURIBOR (Euro Interbank Offered Rate), and federal funds rate. The tables below describe the maturity periods of these derivative instruments.

Investment Maturities

As of June 30, 2017 (Amounts in Thousands)

			Investment Maturities								
Investment Type	F	air Value	L	ess than 1 Year		1-5 Years		6-10 Years		ore than 0 Years	
Credit default swaps bought	\$	(43,528)	\$	(16)	\$	(43,512)	\$	-	\$	-	
Fixed income options bought		24,937		-		1,468		12,332		11,137	
Total return swaps bond		2,466		2,466		-		-		-	
TOTAL	\$	(16,125)	\$	2,450	\$	(42,044)	\$	12,332	\$	11,137	

Investment Maturities

As of June 30, 2016 (Amounts in Thousands)

			Investment Maturities								
Investment Type	F	air Value]	Less than 1 Year		1-5 Years		6-10 Years		ore than) Years	
Credit default swaps bought	\$	(21,716)	\$	-	\$	(21,716)	\$	-	\$	-	
Fixed income options bought		12,816		-		1,824		1,171		9,821	
Total return swaps bond		(3,872)		(3,872)		-		-		-	
Total return swaps equity		5,507		5,507		-		-		-	
TOTAL	\$	(7,265)	\$	1,635	\$	(19,892)	\$	1,171	\$	9,821	

June 30, 2017 and 2016 (Continued)

NOTE 7 – Deposits and Investments

Derivatives (Continued)

SBCERA is exposed to foreign currency risk for its investments in derivative instruments denominated in foreign currencies that may be adversely affected by changes in the currency exchange rates as follows:

Net Exposure to Foreign Currency Risk for Investment Derivative Instruments

						Forward (Contract	S
Currency	Fair	Value	Fixed	Income	Net Re	ceivables	Net	Payables
Brazilian Real	\$	52	\$	-	\$	80	\$	(28)
Canadian Dollar		(46)		-		-		(46)
Euro Currency		(1,437)		79		-		(1,516)
Japanese Yen		440		92		348		-
Pound Sterling		328		15		321		(8)
South African Rand		66		-		66		-
Swiss Franc		(11)		-		-		(11)
TOTAL	\$	(608)	\$	186	\$	815	\$	(1,609)

As of June 30, 2017 (Amounts in Thousands)

Net Exposure to Foreign Currency Risk for Investment Derivative Instruments

As of June 30, 2016 (Amounts in Thousands)

						Forward (Contract	s
Currency	Fai	r Value	Fixed	Income	Net R	eceivables	Net	Payables
Brazilian Real	\$	(755)	\$	-	\$	-	\$	(755)
Canadian Dollar		(17)		-		-		(17)
Euro Currency		4,449		156		4,390		(97)
Japanese Yen		26		470		-		(444)
Pound Sterling		(418)		40		1,070		(1,528)
South African Rand		(397)		-		-		(397)
Swiss Franc		93		-		200		(107)
TOTAL	\$	2,981	\$	666	\$	5,660	\$	(3,345)

At June 30, 2017 and 2016, SBCERA did not hold any positions in derivatives containing contingent features.

June 30, 2017 and 2016 (Continued)

NOTE 7 - Deposits and Investments (Continued)

Credit Risk

Credit Risk is the risk an issuer or other counterparty to an investment will not fulfill its obligations. SBCERA seeks to maintain a diversified portfolio of debt investments in order to obtain the highest total return for the fund at an acceptable level of risk within this asset class. To mitigate credit risk, investment guidelines have been established for each manager investing on behalf of SBCERA.

Emerging market debt and private placement investments' credit risk is controlled through limited partnership agreements and other applicable commingled fund documents. These investments are not rated by nationally recognized statistical rating organizations although they may be partly or wholly made up of individual securities rated by nationally recognized statistical rating organizations. The emerging market debt is shown as "Not Rated" in the tables on the next two pages. The short-term cash investment funds consist primarily of open-ended mutual funds and external investment pools. These investments are not rated by a nationally recognized statistical rating organization. Therefore, they are disclosed as such in the aforementioned tables. Private placement investments considered fixed income investments are not shown in the tables on the next two pages, but amount to \$45.61 million and \$48.74 million as of June 30, 2017 and 2016, respectively. U.S. Government, are not considered to have credit risk, and are not shown in the tables on the next two pages, but amount to \$109.02 million and \$83.49 million as of June 30, 2017 and 2016, respectively.

June 30, 2017 and 2016 (Continued)

NOTE 7 – Deposits and Investments

Credit Risk (Continued)

The credit quality ratings of investments in fixed income securities and short-term cash investments by a nationally recognized statistical rating organization (Standard and Poor's) as of June 30, 2017 and 2016 are as follows:

Credit Quality Ratings (S&P) of Fixed Income and Short-Term Cash Investments

						S8	xP Credit	Rating			
Investment Type	Total Fair Value	AAA	AA+ to AA-	A+ to A-	BBB+ to BBB-	BB+ to BB-	B+ to B-	CCC+ to CCC-	CC+ to CC-	D	Not Rated
Asset backed	\$ 185,029	\$ 28,270	\$ -	\$ 8	\$ 2,023	\$ 10,400	\$ 10,627	\$ 3	\$ -	\$ 2	\$ 133,696
Corporate bonds ¹	50,208	-	-	-	-	-	1,934	-	-	-	48,274
Collateralized mortgage obligations	9,139	-	5,016	-	-	-	-	2,673	1,313	137	-
Emerging market debt	53,462	-	-	-	-	-	-	-	-	-	53,462
Foreign bonds ²	59,454	-	-	-	-	-	1,417	-	-	-	58,037
Municipals	759	-	76	-	-	-	-	-	3	680	-
Short-term cash investment funds	1,211,562	-	-	-	-	-	-	-	-	-	1,211,562
TOTAL	\$ 1,569,613	\$ 28,270	\$ 5,092	\$8	\$ 2,023	\$ 10,400	\$ 13,978	\$ 2,676	\$ 1,316	\$819	\$1,505,031

As of June 30, 2017 (Amounts in Thousands)

(1) Does not include private placements, which amount to \$44,717.

(2) Does not include private placements, which amount to \$891.

Note: Table above does not include U.S. Treasury obligations, which amount to \$109,019, as these obligations are not subject to credit risk.

June 30, 2017 and 2016 (Continued)

NOTE 7 – Deposits and Investments

Credit Risk (Continued)

Credit Quality Ratings (S&P) of Fixed Income and Short-Term Cash Investments

As of June 30, 2016 (Amounts in Thousands)

			S&P Credit Rating									
Investment Type	Total Fair Value	AA+ to AA-	A+ to A-	BBB+ to BBB-	BB+ to BB-	B+ to B-	CCC+ to CCC-	CC+ to CC-	D	Not Rated		
Asset backed	\$ 137,857	\$ - \$	5 4,244 \$	\$ 3,229	\$ 28,324 \$	7,074	\$ 4	\$-	\$ 2	\$ 94,980		
Corporate bonds ¹	70,115	-	-	4,366	696	-	653	-	9	64,391		
Collateralized mortgage obligation	s 8,169	109	-	-	-	-	2,598	1,562	138	3,762		
Emerging market debt	49,634	-	-	-	-	-	-	-	-	49,634		
Foreign bonds ²	44,324	-	-	-	-	-	-	-	862	43,462		
Municipals	806	79	-	-	-	-	-	79	648	-		
Short-term cash investment funds	915,688	-	-	-	-	-	-	-	-	915,688		
TOTAL	\$ 1,226,593	\$ 188 \$	5 4,244 \$	\$ 7,595	\$ 29,020 \$	7,074	\$ 3,255	\$ 1,641	\$ 1,659	\$ 1,171,917		

Custodial Credit Risk

Custodial Credit Risk for deposits is the risk that in the event of a financial institution's failure, SBCERA would not be able to recover its deposits. Deposits are exposed to custodial credit risk if they are not insured or not collateralized. As of June 30, 2017 and 2016, SBCERA's deposits with a financial institution are insured up to \$250 thousand by the Federal Deposit Insurance Corporation (FDIC) with the remaining balance exposed to custodial credit risk as it is not insured. However, the financial institution does collateralize the deposit of monies in excess of the FDIC insurance amount with eligible securities held by the pledging financial institution, but not in SBCERA's name. Deposits with the County of San Bernardino Treasurer's investment pool are not exposed to custodial credit risk as they are held in a trust fund in SBCERA's name.

⁽¹⁾ Does not include private placements, which amount to \$24,747.

⁽²⁾ Does not include private placements, which amount to \$23,995.

Note: Table above does not include U.S. Treasury obligations, which amount to \$83,488, as these obligations are not subject to credit risk.

June 30, 2017 and 2016 (Continued)

NOTE 7 – Deposits and Investments

Custodial Credit Risk (Continued)

Custodial Credit Risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, SBCERA would not be able to recover the value of the investment or collateral securities that are in possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in SBCERA's name, and held by the counterparty.

SBCERA's investment securities and collateral received through securities lending are not exposed to custodial credit risk because all securities are held by SBCERA's custodial bank in SBCERA's name or by other qualified third party administrator trust accounts.

Concentration of Credit Risk

Concentration of credit risk is the risk of loss that may be attributed to the magnitude of an investment in a single issuer. As of June 30, 2017 and 2016, SBCERA did not hold any investments in any one issuer that would represent 5% or more of total investments. Investments issued or explicitly guaranteed by the U.S. Government and pooled investments are excluded from this requirement.

Concentration of Investments

As of June 30, 2017 and 2016, SBCERA did not hold investments in any one organization that represents 5% or more of the Plan's fiduciary net position. Investments issued or explicitly guaranteed by the U.S. Government and pooled investments are excluded from this requirement.

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Generally, an investment with a longer maturity date has a greater sensitivity of its fair value to changes in market interest rates. One of the ways that SBCERA manages its exposure to interest rate risk is by purchasing a combination of shorter-term and longer-term investments, and by timing cash flows from maturities so that a portion of the portfolio is maturing or coming close to maturity evenly over time, as necessary, to provide the cash flow and liquidity needed for operations.

To mitigate interest rate risk, the managers investing on behalf of SBCERA have applicable investment guidelines. Interest rate risk for emerging market and private placement debt investments is managed through limited partnership agreements and applicable fund documents.

June 30, 2017 and 2016 (Continued)

NOTE 7 – Deposits and Investments

Interest Rate Risk (Continued)

As of June 30, 2017 and 2016, SBCERA had the following Fixed Income and Short-Term Cash Investments:

Interest Rate Risk of Fixed Income and Short-Term Cash Investments

			Investment Maturities									
Investment Type]	Fair Value	Less than 6 Months	61	Months to 1 Year		1-5 Years	M	ore than 5 Years			
Asset backed	\$	185,029	\$ -	. \$	-	\$	2,906	\$	182,123			
Corporate bonds ¹		94,925	28		159		42,812		51,926			
Collateralized mortgage obligations		9,139	-		-		-		9,139			
Emerging market debt		53,462	558		15,252		13,036		24,616			
Foreign bonds ²		60,345	-		6,692		33,170		20,483			
Municipals		759	27		-		205		527			
Short-term cash investment funds		1,211,562	1,211,562		-		-		-			
U.S. Treasury		109,019	69,851		39,168		-		-			
TOTAL	\$	1,724,240	\$ 1,282,026	\$	61,271	\$	92,129	\$	288,814			

As of June 30, 2017 (Amounts in Thousands)

Interest Rate Risk of Fixed Income and Short-Term Cash Investments

As of June 30, 2016 (Amounts in Thousands)

		Investment Maturities								
Investment Type	Fair Value	I	ess than 6 Months		Ionths to 1 Year		1-5 Years	M	ore than 5 Years	
Asset backed	\$ 137,857	\$	-	\$	-	\$	2,601	\$	135,256	
Corporate bonds ³	94,862		3,717		2,019		54,189		34,937	
Collateralized mortgage obligations	8,169		-		-		-		8,169	
Emerging market debt ⁴	6,523		-		-		4,164		2,359	
Foreign bonds ⁵	68,319		446		17,240		42,338		8,295	
Municipals	806		-		-		-		806	
Short-term cash investment funds	915,688		915,688		-		-		-	
U.S. Treasury	83,488		46,469		29,518		7,501		-	
TOTAL	\$ 1,315,712	\$	966,320	\$	48, 777	\$	110,793	\$	189,822	

(1) Includes private placements, which amount to \$44,717.

(2) Includes private placements, which amount to \$891.

(3) Includes private placements, which amount to \$24,747.(4) Does not include underlying investments with no maturity date, which amount to \$43,111.

(5) Includes private placements, which amount to \$23,995.

June 30, 2017 and 2016 (Continued)

NOTE 7 – Deposits and Investments (Continued)

Foreign Currency Risk

SBCERA's exposure to foreign currency risk primarily derives from its positions in foreign currency denominated international equity, fixed income investments, and foreign currency overlay exposure. SBCERA's investment policy allows international managers to enter into foreign exchange contracts provided the contracts have a maturity of one year or less and are limited to hedging currency exposure existing in the portfolio. Specific managers in international equities or fixed income may engage in the active management of currencies, per individual investment agreements approved by the Board.

SBCERA's net exposure to foreign currency risk in U.S. dollars as of June 30, 2017 and 2016 is as follows:

Net Exposure to Foreign Currency Risk

As of June 30, 2017 (Amounts in Thousands)

			Туре	
Currency	Fair Value	Fixed Income	Equity	Cash
Argentine Peso	\$ 12,464	\$ 12,347	\$ -	\$ 117
Australian Dollar	6,953	-	6,953	-
Brazilian Real	22,027	12,669	9,355	3
Canadian Dollar	13,457	-	13,134	323
Euro Currency	343,586	18,312	312,828	12,446
Hong Kong Dollar	25,174	-	23,470	1,704
Indonesian Rupiah	2,070	-	2,070	-
Japanese Yen	6,754	-	-	6,754
Malaysian Ringgit	7,024	-	7,005	19
Mexican Peso	5,619	-	5,619	-
New Taiwan Dollar	17,148	-	17,148	-
Pound Sterling	52,756	484	44,379	7,893
Qatari Rial	2,614	-	2,614	-
South African Rand	13,916	4,450	9,466	-
South Korean Won	17,472	-	17,472	-
Swedish Krona	300	-	-	300
Swiss Franc	14,754	-	14,754	-
Thailand Baht	3,524	-	1,402	2,122
Turkish Lira	5,935	-	5,868	67
UAE Dirham	2,119	-	2,119	-
TOTAL	\$ 575,666	\$ 48,262	\$ 495,656	\$ 31,748

June 30, 2017 and 2016 (Continued)

NOTE 7 – Deposits and Investments

Foreign Currency Risk (Continued)

Net Exposure to Foreign Currency Risk

As of June 30, 2016 (Amounts in Thousands)

		Туре				
Currency	Fair Value	Fixed Income	Equity	Cash		
Australian Dollar	\$ 5,485	\$ -	\$ 5,485	\$ -		
Brazilian Real	6,255	-	6,255	-		
Canadian Dollar	5,838	4,555	1,181	102		
Danish Krone	112	-	112	-		
Euro Currency	461,985	93,776	319,649	48,560		
Hong Kong Dollar	19,691	-	19,691	-		
Indonesian Rupiah	3,032	-	3,032	-		
Japanese Yen	4,822	4,822	-	-		
Malaysian Ringgit	6,626	-	6,626	-		
Mexican Peso	4,935	-	4,935	-		
New Taiwan Dollar	18,066	-	17,455	611		
Polish Zloty	1	-	-	1		
Pound Sterling	24,160	4,162	17,046	2,952		
Qatari Rial	3,267	-	3,267	-		
Singapore Dollar	725	714	-	11		
South African Rand	14,526	3,129	7,701	3,696		
South Korean Won	11,579	-	11,579	-		
Swiss Franc	12,311	-	5,346	6,965		
Thailand Baht	1,762	-	1,762	-		
Turkish Lira	2,036	-	2,036	-		
UAE Dirham	1,711	-	1,711	-		
TOTAL	\$ 608,925	\$ 111,158	\$ 434,869	\$ 62,898		

Rate of Return

For the years ended June 30, 2017 and 2016, the annual money-weighted rate of return on the assets of the Plan, net of investment expense, was 13.47% and (0.97%), respectively. 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.

June 30, 2017 and 2016 (Continued)

NOTE 7 – Deposits and Investments (Continued)

Commitments to Fund Partnerships

As of June 30, 2017 and 2016, the total capital commitments to fund partnerships were \$4.47 billion and \$4.08 billion, respectively. Of this amount, \$858.29 million and \$638.23 million, respectively, remained unfunded and is not recorded on the SBCERA Statements of Fiduciary Net Position as of June 30, 2017 and 2016. The following tables depict the total commitments and unfunded commitments, respectively, by asset class.

Total Commitments and Unfunded Commitments to Fund Partnerships by Asset Class

As of June 30, 2017 (Amounts in Thousands)

Asset Class	Total	Commitments	Unfunde	d Commitments
Real estate	\$	967,175	\$	131,171
Alternatives		3,499,123		727,118
TOTAL	\$	4,466,298	\$	858,289

Total Commitments and Unfunded Commitments to Fund Partnerships by Asset Class

As of June 30, 2016 (Amounts in Thousands)

Asset Class	Tota	al Commitments	Unfunded	l Commitments
Real estate	\$	1,015,946	\$	43,248
Alternatives		3,060,787		594,984
TOTAL	\$	4,076,733	\$	638,232

Fair Value Measurements

SBCERA categorizes its fair value measurements of its investments based on the fair value hierarchy established by generally accepted accounting principles. The fair value hierarchy, which has three levels, is based on the valuation inputs used to measure an asset's fair value. Level 1 inputs are unadjusted quoted prices in active markets for identical assets. Level 2 inputs are quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-derived valuations in which all significant inputs are observable. Level 3 inputs are valuations derived from valuation techniques in which significant inputs are unobservable.

The tables on the next two pages depict the fair value measurements as of June 30, 2017 and 2016, respectively.

June 30, 2017 and 2016 (Continued)

NOTE 7 – Deposits and Investments

Fair Value Measurements (Continued)

Investments and Derivative Instruments Measured at Fair Value

As of June 30, 2017 | (Amounts in Thousands)

As of June 30, 2017	(A)	nounts in	Ihou	sands)						
				Fair Value Measurements Using						
Investment Type	T.,	ne 30, 2017	fo	ive Markets r Identical Assets (Level 1)	0	ficant Other bservable Inputs Level 2)	Signif Unobse Inpr (Leve	ervable uts		
	Ju	IIIC J0, 2017			((Leve	(1 J)		
Investments by fair value level Short-term cash investment funds	¢	1 211 5(2	¢	21,612	¢	1 1 9 0 0 5 0	¢			
Emerging market debt	\$	1,211,562 53,462	\$	21,012	φ.	1,189,950 53,462	\$	-		
		55,402		-		JJ, 1 02		-		
United States government obligations and other municipals:										
U.S. Treasury		109,019		-		109,019		-		
Municipals		759		-		759		-		
Total United States government obligations and other municipals		109,778		-		109,778		-		
Corporate bonds:		105.000				105 000				
Asset backed		185,029		-		185,029		-		
Collateralized mortgage obligations		9,139		-		9,139		-		
Corporate bonds	_	94,925		-		94,925		-		
Total corporate bonds	_	289,093		-		289,093		-		
Foreign bonds		60,345		-		60,345		-		
Domestic common and preferred stock		702,810		32,800		669,993	275	17		
Foreign common and preferred stock		851,557		492,151		83,706	2/3	,700		
Investments of cash collateral received on securities lending		103,709		-		103,709		-		
Domestic alternatives TOTAL INVESTMENTS BY FAIR VALUE LEVEL	\$	28,735 3,411,051	\$	546,563	¢ ′	28,735 2,588,771	\$ 275	-		
Investment derivative instruments	φ	3,411,031	ب)40,)0)	Ŷ 4	2,300,771	ر / له ب	,/1/		
Swaps	\$	(41,062)	\$	-	\$	(41,062)	\$	_		
Options	ψ	59,677	ψ	-	Ψ	59,677	Ψ	-		
Forward contracts		(794)		(794)		-		-		
TOTAL INVESTMENT DERIVATIVE INSTRUMENTS	\$	17,821	\$	(794)	\$	18,615	\$	-		
Investments measured at the net asset value (NAV)	<u> </u>	1,,021		(1 / -)		10,019	¥			
Domestic common and preferred stock	\$	43,401								
Foreign common and preferred stock	Ŷ	342,845								
Real estate		494,425								
Domestic alternatives:		_,_,,								
Absolute return composite		900,287								
Non-U.S. developed credit		198,738								
Private equity - commodities		169,017								
Private equity - composite		1,143,721								
Private equity - infrastructure		73,311								
Private equity - real assets		167,139								
U.S. credit strategies		922,102								
Total domestic alternatives		3,574,315								
Foreign alternatives:			_							
Absolute return composite		3,477								
Non-U.S. developed credit		1,240,095								
Private equity - composite		253,145								
Total foreign alternatives		1,496,717								
TOTAL INVESTMENTS MEASURED AT THE NAV	\$	5,951,703								
TOTAL INVESTMENTS MEASURED AT FAIR VALUE	\$	9,380,575								

June 30, 2017 and 2016 (Continued)

NOTE 7 – Deposits and Investments

Fair Value Measurements (Continued)

Investments and Derivative Instruments Measured at Fair Value

As of June 30, 2016 | (Amounts in Thousands)

				Fair Value Measurements Using					
Investment Type		- ne 30, 2016	for	ve Markets Identical Assets Level 1)	0	ificant Other bservable Inputs (Level 2)	Significan Unobserval Inputs (Level 3)	ble	
Investments by fair value level									
Short-term cash investment funds	\$	915,688	\$	31,046	\$	884,642	\$	-	
Emerging market debt		6,523		-		6,523		-	
United States government obligations and other municipals:									
U.S. Treasury		83,488				83,488		_	
Municipals		806		-		806		-	
Total United States government obligations and other municipals		84,294		-		84,294		-	
Corporate bonds:		01,=/1				01,271			
Asset backed		137,857		-		137,857		_	
Collateralized mortgage obligations		8,169		-		8,169		-	
Corporate bonds		94,862		-		68,634	26,228	8	
Total corporate bonds		240,888		-		214,660	26,228		
Foreign bonds		68,319		-		68,319		-	
Domestic common and preferred stock		597,332		21,733		571,613	3,980	6	
Foreign common and preferred stock		383,163		118,544		64,195	200,424	4	
Investments of cash collateral received on securities lending		95,460		-		95,460		-	
Domestic alternatives		39,115		8,815		30,300		-	
Foreign alternatives		3,337		-		3,337		-	
TOTAL INVESTMENTS BY FAIR VALUE LEVEL	\$	2,434,119	\$	180,138	\$	2,023,343	\$ 230,638	8	
Investment derivative instruments									
Swaps	\$	(20,081)	\$	-	\$	(20,081)	\$	-	
Options		44,963		-		44,963		-	
Forward contracts		2,315		2,315		-		-	
TOTAL INVESTMENT DERIVATIVE INSTRUMENTS	\$	27,197	\$	2,315	\$	24,882	\$	-	
Investments measured at the net asset value (NAV)									
Emerging market debt	\$	43,111							
Domestic common and preferred stock		31,103							
Foreign common and preferred stock		387,944							
Real estate		525,075							
Domestic alternatives:									
Absolute return composite		709,469							
Long/short equity		175,396							
Non-U.S. developed credit		88,675							
Private equity - commodities		154,861							
Private equity - composite		1,066,952							
Private equity - infrastructure		62,684							
Private equity - real assets		203,680							
U.S. credit strategies		995,481							
Total domestic alternatives		3,457,198							
Foreign alternatives:		5 251							
Absolute return composite		5,351							
Non-U.S. developed credit		1,090,502							
Private equity - composite Total foreign alternatives		289,575 1,385,428							
TOTAL INVESTMENTS MEASURED AT THE NAV	¢	5,829,859						3.	
TOTAL INVESTMENTS MEASURED AT THE NAV	\$ \$	<u>3,829,839</u> <u>8,291,175</u>							
I O IAL INVESTIMENTS MEASURED AT FAIR VALUE	φ	0,4/1,1/)					100		

June 30, 2017 and 2016 (Continued)

NOTE 7 – Deposits and Investments

Fair Value Measurements (Continued)

In instances where inputs used to measure fair value fall into different levels in the fair value hierarchy, fair value measurements, in their entirety, are categorized based on the lowest level input that is significant to the valuation. SBCERA's assessment of the significance of particular inputs to these fair value measurements requires judgment and considers factors specific to each asset or liability. Investments are measured by type of investment as follows:

Short-term cash investments generally includes investments in currency, classified in Level 1 of the fair value hierarchy at fair value, and money market-type securities and other short-term investment funds, classified in Level 2 of the fair value hierarchy at fair value.

Debt securities includes emerging market debt, U.S. Government obligations and other municipals, corporate bonds, and foreign bonds. Debt securities classified in Level 2 of the fair value hierarchy are valued using the matrix pricing technique or the discounted cash flow method. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices. Debt securities classified in Level 3 of the fair value hierarchy are valued using the discounted cash flow method or proprietary pricing information.

Equity securities includes domestic and foreign common and preferred stock. Equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Equity securities classified in Level 2 of the fair value hierarchy are valued using prices quoted in active markets for similar securities. Equity securities classified in Level 3 of the fair value hierarchy are valued with last trade data having limited trading volume.

Cash collateral received on securities lending consists primarily of U.S. Government debt obligations, and also includes domestic equity, domestic fixed income, international equity, and international fixed income securities classified in Level 2 of the fair value hierarchy using prices quoted in active markets for similar securities.

Alternative securities includes domestic and foreign alternatives. Alternative securities classified at Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Alternative securities classified in Level 2 of the fair value hierarchy are valued using prices quoted in active markets for similar securities.

Derivative instruments classified in Level 1 of the fair value hierarchy are valued using a market approach using prices quoted in active markets for those securities. Derivative instruments classified in Level 2 of the fair value hierarchy are valued using a market approach that considers benchmark interest rates and foreign exchange rates.

June 30, 2017 and 2016 (Continued)

NOTE 7 – Deposits and Investments

Fair Value Measurements (Continued)

The fair value of investments in certain equity, fixed income, and marketable alternatives are based on the investment's net asset value (NAV) per share (or its equivalent) provided by the investee. The fair values of investments in certain private equity funds have been determined using recent observable transaction information for similar investments and nonbinding bids received from potential buyers of the investments. Such fair value measurements are shown in the tables below and on the next page as of June 30, 2017 and 2016.

Investments Measured at the NAV

As of June 30, 2017 (Amounts in Thousands)

I T			nfunded	Redemption Frequency (if	Redemption
Investment Type		ir Value	nmitments	Currently Eligible) ¹	Notice Period
Domestic common and preferred stock	\$	43,401	\$ -	D	30 days
Foreign common and preferred stock		342,845	-	D	30 days
Real estate		494,425	131,171	D, Q	15-90 days
Domestic alternatives:					
Absolute return composite		900,287	69,813	D, Q	30 days
Non U.S. developed credit		198,738	-	D, Q	60 days
Private equity - commodities		169,017	9,023	N/A	N/A
Private equity - composite	1	,143,721	488,653	N/A	N/A
Private equity - infrastructure		73,311	881	D	3 days
Private equity - real assets		167,139	-	N/A	N/A
U.S. credit strategies		922,102	-	D, Q, A	3-65 days
Total domestic alternatives	3	574,315	568,370	_	
Foreign alternatives:					
Absolute return composite		3,477	8,514	N/A	N/A
Non U.S. developed credit	1	,240,095	-	D	3 days
Private equity - composite		253,145	 150,234	N/A	N/A
Total foreign alternatives	1	496,717	158,748		
TOTAL INVESTMENTS MEASURED AT THE NAV	\$5	,951,703	\$ 858,289	=	

(1) D=Daily, M=Monthly, Q=Quarterly, A=Annually

June 30, 2017 and 2016 (Continued)

NOTE 7 – Deposits and Investments

Fair Value Measurements (Continued)

Investments Measured at the NAV

As of June 30, 2016 (Amounts in Thousands)

D 1

Investment Type	Fair Value	Unfunded Commitments	Redemption Frequency (if Currently Eligible) ¹	Redemption Notice Period
Emerging market debt	\$ 43,111	\$ -	D, M	10-15 days
Domestic common and preferred stock	31,103	-	D	30 days
Foreign common and prefered stock	387,944	-	D	30 days
Real estate	525,075	43,248	D, Q	15-90 days
Domestic alternatives:				
Absolute return composite	709,469	-	D, Q	30 days
Long/short equity	175,396	-	D	N/A
Non U.S. developed credit	88,675	1,745	D, Q	60 days
Private equity - commodities	154,861	4,840	N/A	N/A
Private equity - composite	1,066,952	388,613	N/A	N/A
Private equity - infrastructure	62,684	826	D	3 days
Private equity - real assets	203,680	-	N/A	N/A
U.S. credit strategies	995,481	-	D, Q, A	3-65 days
Total domestic alternatives	3,457,198	396,024	_	
Foreign alternatives:				
Absolute return composite	5,351	8,561	N/A	N/A
Non U.S. developed credit	1,090,502	-	D	3 days
Private equity - composite	289,575	190,399	N/A	N/A
Total foreign alternatives	1,385,428	198,960		
TOTAL INVESTMENTS MEASURED AT THE NAV	\$ 5,829,859	\$ 638,232	=	

The investment types listed in the tables above were measured at the NAV as follows:

Emerging market debt includes investments in alternative funds that invest primarily in debt in emerging markets to access income from a broader global pool of assets. The fair values of the investments in this type have been determined using the NAV per share of the investments. Investments representing approximately 0% and 19% of the value of the investments as of June 30, 2017 and 2016, respectively, cannot be redeemed because the investments include restrictions that do not allow for redemption.

(1) D=Daily, M=Monthly, Q=Quarterly, A=Annually

June 30, 2017 and 2016 (Continued)

NOTE 7 – Deposits and Investments

Fair Value Measurements (Continued)

Domestic common and preferred stock includes investments in equities that invest in assets that focus on U.S. credit strategies to provide an income-focus by utilizing credit dislocation opportunities. The fair values of the investments in this type have been determined using the NAV per share (or its equivalent) of the investments. Investments representing 0% and 6% of the value of the investments as of June 30, 2017 and 2016, respectively, cannot be redeemed because the investments include restrictions that do not allow for redemption.

Real estate investments provide stable income and participation in broad economic growth. This type includes real estate funds that invest in global commercial real estate and commingled funds. 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. Investments representing approximately 50% and 57% of the value of the investments as of June 30, 2017 and 2016, respectively, cannot be redeemed with the funds. It is expected that the underlying assets of the funds will be liquidated over the next 1 to 10 years.

Domestic alternatives: Absolute return composite provides income and diversification through below investment grade credit and distressed debt strategies. This type includes credit and debt securities. Investments representing approximately 69% and 18% of the value of the investments as of June 30, 2017 and 2016, respectively, cannot be redeemed.

Domestic alternatives: Long/short equity provides a positive return in both long and short positions with an absolute return focus. This type includes investments in funds that focus on equity securities in companies with large market capitalization. All investments of this type may be redeemed according to the provisions in the aforementioned tables.

Domestic alternatives: Non U.S. developed credit provides access to income from a broader pool of assets in Europe. This type includes investments in funds that focus on corporate and sovereign bonds of developed economies issued in U.S. dollars. All investments of this type may be redeemed according to the provisions in the aforementioned tables.

Domestic alternatives: Private equity – commodities provides exposure to inflation related assets and includes investments in partnerships that focus on natural resources and energy. The fair values of this investment type have been determined using the NAV per share (or its equivalent) of the Plan's ownership interest in partners' capital. Investments of this type cannot be redeemed with the funds. It is expected that the underlying assets of the funds will be liquidated over the next 1 to 10 years.

June 30, 2017 and 2016 (Continued)

NOTE 7 – Deposits and Investments

Fair Value Measurements (Continued)

Domestic alternatives: Private equity – composite provides participation in equity and debt instruments that provide for a premium on illiquid assets. This type includes investments in partnerships as a limited partner that invest in private equity and private debt. The fair values of this investment type have been determined using the NAV per share (or its equivalent) of the Plan's ownership interest in partners' capital. Investments of this type cannot be redeemed with the funds. It is expected that the underlying assets of the funds will be liquidated over the next 1 to 10 years.

Domestic alternatives: Private equity – infrastructure provides participation in equity and debt instruments that provide for a premium on illiquid assets. This type includes investments in partnerships that focus on infrastructure in highly regulated markets. The fair values of this investment type have been determined using the NAV per share (or its equivalent) of the Plan's ownership interest in partners' capital. Investments representing approximately 62% and 61% of the value of the investments at June 30, 2017 and 2016, respectively, cannot be redeemed with the funds. It is expected that the underlying assets of the funds will be liquidated over the next 6 to 10 years.

Domestic alternatives: Private equity – real assets provides exposure to inflation related assets and includes investments in partnerships that focus on real assets including timber and wetlands. The fair values of this investment type have been determined using the NAV per share (or its equivalent) of the Plan's ownership interest in partners' capital. Investments of this type cannot be redeemed with the funds. It is expected that the underlying assets of the funds will be liquidated over the next 7 to 10 years.

Domestic alternatives: U.S. credit strategies includes investments in assets that focus on U.S. credit strategies to provide an income-focus by utilizing credit dislocation. This type includes investments in funds that focus on credit strategies, including direct loans, securitized products, and public-traded debt products. Investments representing approximately 3% and 6% of the value of the investments as of June 30, 2017 and 2016, respectively, cannot be redeemed.

Foreign alternatives: Absolute return composite provides income and diversity through below investment grade global credit and distressed debt strategies. This type includes global credit and debt securities. Investments in this type may be redeemed within five years.

Foreign alternatives: Non U.S. developed credit provides access to income from a broader pool of assets in Europe. This type includes investments in funds that focus on corporate and sovereign bonds of developed economies. All investments of this type may be redeemed according to the provisions in the aforementioned tables.

June 30, 2017 and 2016 (Continued)

NOTE 7 – Deposits and Investments

Fair Value Measurements (Continued)

Foreign alternatives: Private equity – composite provides participation in equity and debt instruments that provide for a premium on illiquid assets. This type includes investments in partnerships as a limited partner that invest in private equity and private debt. The fair values of this investment type have been determined using the NAV per share (or its equivalent) of the Plan's ownership interest in partners' capital. Investments of this type cannot be redeemed with the funds. It is expected that the underlying assets of the funds will be liquidated over the next 7 to 10 years.

NOTE 8 – Related Party Transactions

By necessity, SBCERA has entered into a Memorandum of Understanding with the County of San Bernardino (County), a participating employer, to provide administrative services in the areas of information technology, staff payroll, telecommunications, postage and mailing, motor pool services, and Board elections. SBCERA's payments to the County for the years ended June 30, 2017 and 2016 were \$316 thousand and \$289 thousand, respectively.

NOTE 9 – Litigation

SBCERA is subject to legal proceedings and claims which have risen in the ordinary course of its business and have not been finally adjudicated. These actions, when finally concluded and determined, will not, in the opinion of the management of SBCERA, have a material adverse effect upon the financial position of SBCERA.

NOTE 10 – Pacific Public Partners

On February 4, 2010, the SBCERA Board established an agency fund, Pacific Public Partners (PPP). PPP is an agency fund for other post-employment health benefits (OPEB), which invests assets on behalf of any local public agency for the purpose of providing health benefits to their retirees pursuant to Article 8.10 of the CERL (commencing with GC section 31699.1) and Section 115 of the IRC. The SBCERA Board determined by means of a resolution, after due consideration, the establishment of PPP was in the long-term best interest of the members and beneficiaries of SBCERA and the participating employers in SBCERA. Therefore, the SBCERA Board authorized an investment of up to \$2.72 million into the OPEB trust to be used for initial startup and administrative costs.

June 30, 2017 and 2016 (Continued)

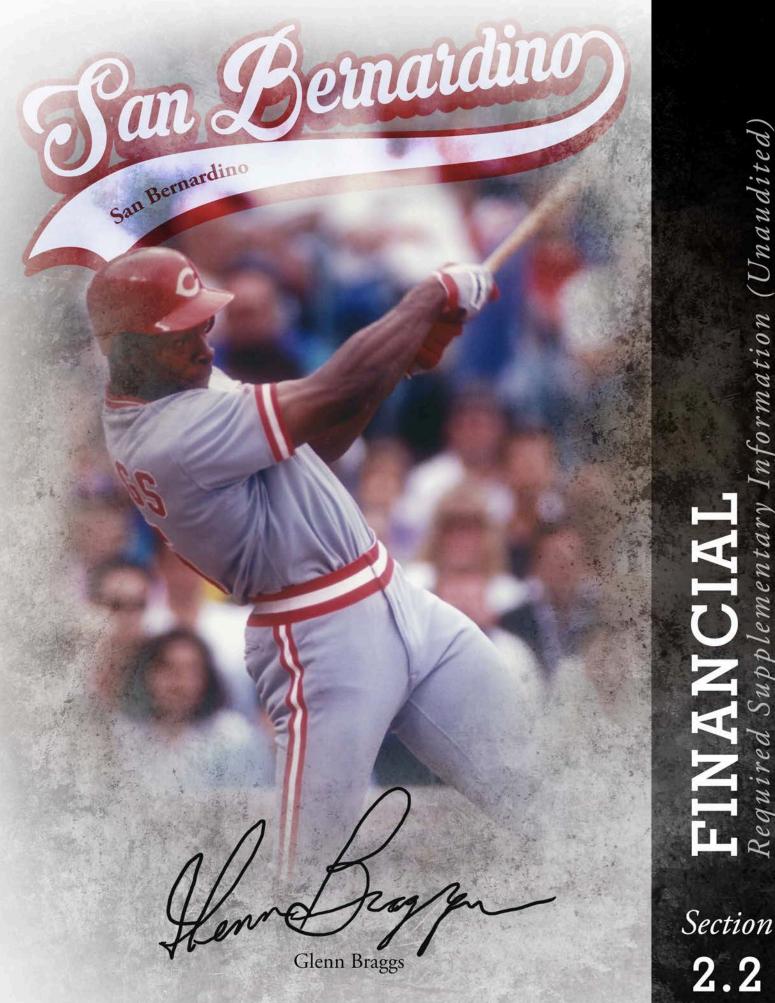
NOTE 10 – Pacific Public Partners (Continued)

The PPP Board is composed of the same members as the SBCERA Board. However, SBCERA and PPP are separate legal entities. The PPP Board establishes the terms and conditions for public agencies and their trust funds to participate in PPP. The PPP financial statements are separately stated and can be obtained from PPP at 348 West Hospitality Lane, Third Floor, San Bernardino, CA 92415.

As of June 30, 2017 and 2016, PPP has not received any assets from any local public agency. The changes in fiduciary net position of PPP do not create any obligation on the part of SBCERA pursuant to GC section 31699.8. Refer to Statements of Fiduciary Net Position – Agency Fund, and Other Supplementary Information – Statements of Changes in Assets and Liabilities – Agency Fund, for further information.

On October 6, 2011, the PPP Board found that it would not be prudent to continue to expend any additional funds or take any additional action to attract any public agency or public agency trusts to participate in and invest assets in SBCERA's agency fund PPP, due to the economic crisis and the inability of public agencies to prefund OPEB liabilities. Therefore, the PPP Board voted to suspend indefinitely all activities of PPP. The PPP Board also ordered the return of the remaining start-up funds to SBCERA and terminated all existing PPP contracts. PPP shall not receive or accept any assets from any public agencies or trust funds until such time as the PPP Board makes a further determination regarding any subsequent change in circumstances that would make the continued operation of PPP consistent with the goals of 2009 Senate Bill 11, Article 8.10 of Chapter 3 of Part 3 of Division 4 of Title 3 of the California GC and the business interests of SBCERA, its members, and participating employers.

On May 4, 2017, the SBCERA Board wrote off the outstanding startup and administrative costs loaned to PPP, in the amount of \$1.01 million, as the amount is uncollectible.



FINANCIAL Required Supplementary Information (Unaudited)

Section 2.2

Required Supplementary Information (Unaudited)

Glenn Braggs

Bragging Rights

For a Little Leaguer, the odds of making it to the pros are highly improbable. The odds of making it to the big leagues and winning a World Series are even less likely. Yet, San Bernardino's own Glenn Braggs can claim both accomplishments. A key member of the 1990 Cincinnati Reds championship team, Braggs batted an impressive .299 for the team during the regular season and drove-in the tying runs in both games 2 and 4 of the World Series.¹ After being drafted from San Bernardino High School by the New York Yankees, Braggs spent seven seasons in the majors and hit 70 home runs.²

Moneyball:

On August 26, 1939, the first televised baseball game took place when the Brooklyn Dodgers hosted the Cincinnati Reds.³ By 2012, Major League Baseball had \$12.4 billion in television broadcast rights contracts.⁴

Baseball-Reference.com.
 Ibid.

(3) Newman, Mark (2012, October 2). "MLB reaches eight-year agreement with Fox, Turner." MLB.com.
 (4) History.com. "Lights, cameras, baseball."

Schedule of Changes in Net Pension Liability of Participating Employers and Related Ratios (Amounts in Thousands)

		Jur	ne 30, 2017	Ju	ne 30, 2016	Ju	ne 30, 2015	Jun	e 30, 2014	Jun	e 30, 2013
Total Pension Liability											
Service cost		\$	300,779	\$	295,458	\$	290,642	\$	271,473	\$	273,020
Interest			803,778		770,842		732,842		709,993		673,932
Differences between expected and actual experience			(10,634)		(151,493)		(75,362)		(306,201)		(97,497)
Changes of assumptions			662,714		-		-		328,748		-
Benefit payments, including refunds of member contributions			(497,904)		(464,068)		(428,475)		(397,823)		(367,396)
NET CHANGE IN TOTAL PENSION LIABILITY			1,258,733		450,739		519,647		606,190		482,059
Total Pension Liability – Beginning]	10,665,212		10,214,473		9,694,826	9	,088,636		8,606,577
TOTAL PENSION LIABILITY – ENDING	a	\$ 1	11,923,945	\$	10,665,212	\$	10,214,473	\$9	,694,826	\$ 9	9,088,636
Plan Fiduciary Net Position											
Contributions – employers ¹		\$	360,478	\$	340,512	\$	303,244	\$	330,330	\$	303,080
Contributions – members ¹			143,858		139,132		129,895		89,861		91,056
Net investment income/(loss)			1,098,198		(80,028)		280,842		877,018		912,310
Benefit payments, including refunds of member contributions			(497,904)		(464,068)		(428,475)		(397,823)		(367,396)
Administrative expenses			(9,961)		(7,569)		(6,710)		(6,386)		(6,258)
Other expenses			(3,202)		(2,664)		(2,208)		(2,483)		(1,572)
NET CHANGE IN PLAN FIDUCIARY NET POSITION			1,091,467		(74,685)		276,588		890,517		931,220
Plan Fiduciary Net Position – Beginning			8,196,974		8,271,659		7,995,071	7	,104,554	(6,173,334
PLAN FIDUCIARY NET POSITION – ENDING	Ь	\$	9,288,441	\$	8,196,974	\$	8,271,659	\$ 7	7,995,071	\$7	7,104,554
NET PENSION LIABILITY	a-b=c	\$	2,635,504	\$	2,468,238	\$	1,942,814	\$ 1	,699,755	\$ 1	1,984,082
PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY	b/a		77 .90 %		76.86%		80.98 %		82.47%		78.17%
COVERED PAYROLL ²	d	\$	1,346,408	\$	1,309,095	\$	1,267,667	\$ 1	,262,752	\$	1,260,309
NET PENSION LIABILITY AS A PERCENTAGE OF COVERED PAYROLL	c/d		195.74%		188.55%		153.26%		134.61%		157.43%

(1) Commencing with the year ended June 30, 2015, member paid employer contributions are included in employer contributions, and employer paid member contributions are included in member contributions.

(2) Covered payroll represents the collective total of the SBCERA eligible wages of all SBCERA participating employers. The covered payroll shown is an estimate based on the prior year's valuation for each date shown.

Note: Data as of June 30, 2008 through June 30, 2012 is not available in a comparable format. See accompanying notes to the Required Supplementary Information.

Schedule of Employer Contributions (Amounts in Thousands)

Years Ended June 30	(a) Actuarially Determined Contributions ¹	(b) Actual Contributions ¹	(a) - (b) Contribution Deficiency/ (Excess)	(c) Covered Payroll ²	(b) / (c) Contributions as a % of Covered Payroll
2008	\$ 162,619	\$ 162,619	\$ -	\$ 1,102,151	14.75%
2009	166,082	166,082	-	1,219,562	13.62%
2010	163,960	163,960	-	1,226,431	13.37%
2011	180,756	180,756	-	1,250,193	14.46%
2012	210,000	210,000	-	1,244,555	16.87%
2013	248,841	248,841	-	1,260,309	19.74%
2014	278,352	278,352	-	1,262,752	22.04%
2015	303,244	303,244	-	1,267,667	23.92%
2016	340,512	340,512	-	1,309,095	26.01%
2017	360,478	360,478	-	1,346,408	26.77%

Schedule of Investment Returns

Years Ended June 30 ³	Annual Money Weighted Rate of Return, Net of Investment Expense
2013	14.64%
2014	12.25%
2015	3.49%
2016	(0.97%)
2017	13.47%

(2) Covered payroll represents the collective total of SBCERA eligible wages of all SBCERA participating employers. The covered payroll shown is an estimate based on the prior year's valuation for each date shown. (3) Data for the years ended June 30, 2008 through 2012 is not available in a comparable format.

See accompanying notes to the Required Supplementary Information.

⁽¹⁾ The Board has approved all contribution rates recommended by the Plan's actuary. Actuarially determined contributions include contributions required for the survivor benefit, and excludes employer paid member contributions, UAAL prepayments, Golden Handshake payments, funds deposited for purchase of service credit, payments made by withdrawn employers, member paid employer contributions, and member contributions. Commencing with the year ended June 30, 2015, member paid employer contributions are included in actuarially determined contributions.

Notes to the Required Supplementary Information

Actuarial Valuation Methods and Assumptions Used in Determining Total Pension Liability

The NPL of participating employers was measured as of June 30, 2013 through 2017 and determined based upon the total pension liability from actuarial valuations as of June 30, 2013 through 2017, respectively.

Changes in Benefit Terms

For the year ended June 30, 2013: In September 2012, Governor Edmund G. Brown, Jr. (Governor Brown) signed the PEPRA, which resulted in the creation of two new benefit formulas for members entering SBCERA on or after January 1, 2013 (and who are not "reciprocal" with another pension system) as follows: 2.5% at age 67 for General members and 2.7% at age 57 for Safety members. PEPRA also caps pensionable compensation, reduces the amount of pay items eligible for pensionable compensation, increases the final average compensation used to calculate benefits from highest one-year average to a highest three-year average, and requires members to pay at least 50% of the total normal cost of the Plan. SBCERA members subject to the provisions of PEPRA are considered Tier 2 members.

For the year ended June 30, 2014: On September 6, 2013, Governor Brown approved Assembly Bill 1380 (AB 1380), which makes various technical corrections and conforming changes that align the CERL with the provisions of the PEPRA. In particular, the bill clarifies that Tier 2 members are eligible to retire at age 70, regardless of years of service, that the Board may, but is not required to, round Tier 2 contribution rates to the nearest quarter of one percent, and that those rates may be adjusted for any change in the normal cost rate. AB 1380 is effective January 1, 2014.

There were no changes in benefit terms for the years ended June 30, 2015 through 2017.

The addition of a new tier of benefits and the subsequent technical corrections stated above did not result in a significant change in the net pension liability of participating employers during the year in which the change was effective.

Notes to the Required Supplementary Information

(Continued)

Actuarial Valuation Methods and Assumptions Used in Determining Total Pension Liability (Continued)

Changes of Methods and Assumptions

The actuarial methods and assumptions used in actuarial valuations, for the years ended June 30, 2013 through 2017, were based on the results of Board approved triennial actuarial experience studies prepared by the Plan's independent actuary. The actuarial methods and assumptions used in determining the net pension liability are the same actuarial methods and assumptions used in determining contribution rates, except for the asset valuation method. For purposes of determining net pension liability, the fair value of assets was used for the years ended June 30, 2013 through 2017. See schedules of changes to actuarial methods and assumptions used for the years ended June 30, 2013 through 2017. Note: The discount rate of return used for the years ended June 30, 2013 through 2017. Note: The discount rate of return used for the years ended June 30, 2013 through 2017 is equal to the investment rate of return shown on page 95.

Actuarial Valuation Methods and Assumptions Used in Determining Contribution Rates

Actuarially determined contributions are established and may be amended by the Board, based on an annual actuarial valuation and review, pursuant to Article 1 of the CERL. The actuarially determined contribution rates in the Schedule of Employer Contributions are calculated as of June 30, two years prior to the end of the year in which contributions are reported. The following actuarial methods and assumptions were used to determine contribution rates reported in that schedule for the years ended June 30, 2008 through 2017 (adjustments were made to more closely reflect actual experience unless indicated otherwise):

Schedule of Actuarial Experience Studies

For the Years Ended June 30, 2008 through 2017

Years Ended June 30	Date of Actuarial Experience Study	Periods Covered in Actuarial Experience Study
2008 to 2010	June 30, 2008	3 Year Period Ended 6/30/2008
2011 to 2013	June 30, 2011	3 Year Period Ended 6/30/2011
2014 to 2016	June 30, 2014	3 Year Period Ended 6/30/2013
2017	June 30, 2017	3 Year Period Ended 6/30/2016

Notes to the Required Supplementary Information

(Continued)

Actuarial Valuation Methods and Assumptions Used in Determining Contribution Rates (Continued)

Schedule of Changes to Actuarial Economic Assumptions

For the Years Ended June 30, 2008 through 2017

Years Ended June 30	Investment Rate of Return	Projected Salary Increases (General)	Projected Salary Increases (Safety)	Inflation	Wage Inflation	Cost-of- Living ¹	Administrative Expenses
2008 to 2010	8.00%	5.00% to 13.25%	5.00% to 13.25%	3.75%	4.25%	2.00%	Offset to Investment Return
2011 to 2013	7.75%	4.75% to 14.00%	4.75% to 14.00%	3.50%	4.00%	2.00%	Offset to Investment Return
2014 to 2016	7.50%	4.60% to 13.75%	4.55% to 13.75%	3.25%	3.75%	2.00%	0.60% of payroll ²
2017	7.25%	4.50% to 14.50%	4.70% to 14.50%	3.00%	3.50%	2.00%	0.70% of payroll ²

Schedule of Changes to Amortization Methods

For the Years Ended June 30, 2008 through 2017

Years Ended	Actuarial Cost Method	Amortization	Remaining	Asset
June 30		Method ³	Amortization Period ⁴	Valuation Method
2008 to 2017	Entry age	Level percent of payroll	20-year closed period	5-year smoothed market

(1) Cost-of-living adjustments are contingent upon the consumer price index with a 2.00% maximum.

(2) Allocated to both the employer and member based on the components of the total contribution rate (before expenses) for the employer and member.

(3) See Schedule of Changes to Actuarial Economic Assumptions for the wage inflation used.

(4) Effective June 30, 2012, any change in UAAL that arises due to Plan amendments is amortized over its own declining 15-year period (with exception of a change due to retirement incentives, which is amortized over a declining period of up to five years).

Notes to the Required Supplementary Information (Continued)

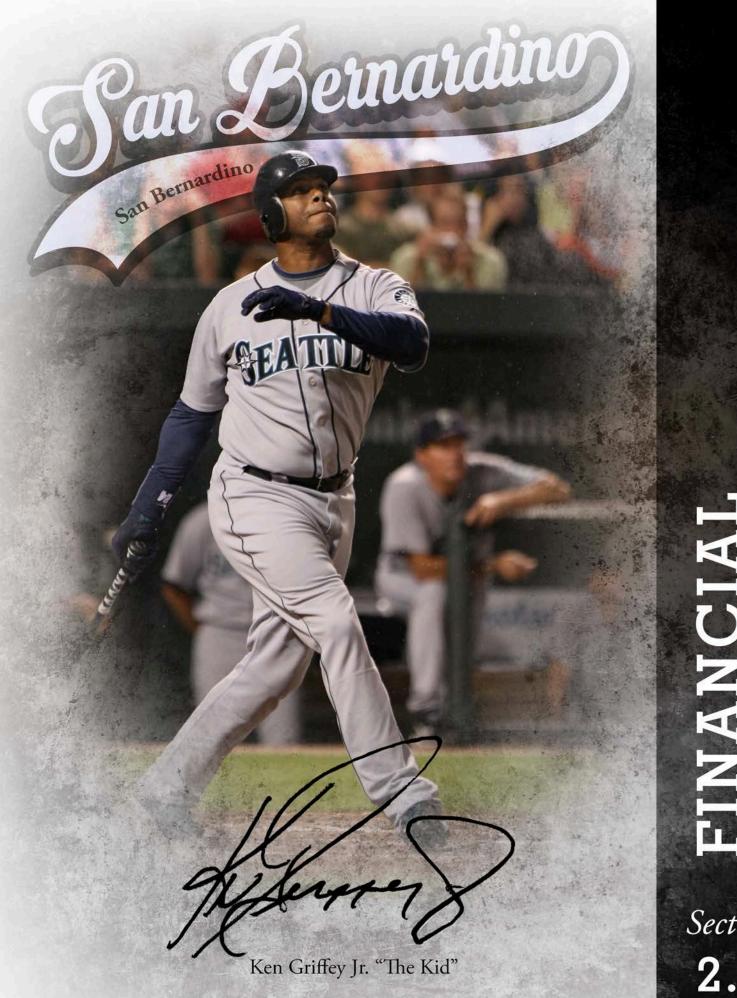
Actuarial Valuation Methods and Assumptions Used in Determining **Contribution Rates** (Continued)

Schedule of Changes to Actuarial Non-Economic Assumptions

For the Years Ended June 30, 2008 through 2017

ANALY ANALY	Years Ended June 30	Marriage Assumption	Mortality Rates (General)	Mortality Rates (Safety)	Reciprocity Assumption	Deferral Age for Vested Terminations
	2008 to 2010	75% male members, 55% female members assumed married at retirement or pre- retirement death.	RP-2000 Combined Healthy Mortality Table set back one year; for disabled males set forward five years; for disabled females set forward six years.	RP-2000 Combined Healthy Mortality Table set back one year; for disabled members no set back.	40%	Age 57 for General members; age 53 for Safety members.
	2011 to 2013	70% male members, 55% female members assumed married at retirement or pre- retirement death.	RP-2000 Combined Healthy Mortality Table set back two years; for disabled males set forward four years; for disabled females set forward five years.	RP-2000 Combined Healthy Mortality Table set back three years; for disabled members set forward one year.	40%	Age 58 for General members; age 52 for Safety members.
	2014 to 2016	70% male members, 55% female members assumed married at retirement or pre- retirement death.	RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020; for disabled males set forward seven years; for disabled females set forward eight years.	RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020; for males set back two years; for females set back one year; for disabled members set forward two years.	40% for General members; 50% for Safety members.	Age 58 for General members; age 52 for Safety members.
	2017	65% male members, 55% female members assumed married at retirement or pre- retirement death.	RP-2014 Healthy Annuitant Mortality Table; for males set forward one year; for disabled members set forward seven years; projected generationally with two-dimensional MP- 2016 projection scale.	RP-2014 Healthy Annuitant Mortality Table set back one year; for disabled members set back one year; projected generationally with two-dimensional MP- 2016 projection scale.	40% for General members; 60% for Safety members.	Age 59 for General members; age 53 for Safety members.

Note: The probabilities of separation from active service and expectation of life are adjusted every three years with the actuarial experience study.

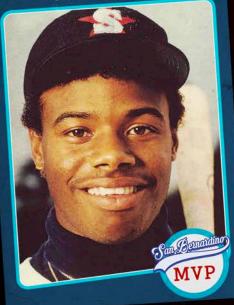


FINANCIAL Other Supplementary Information

Section 2.3

Section 2.3 F I N A N C I A L Other Supplementary Information

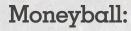
Ken Griffey Jr.



The Kid's Got Spirit

Although neither born nor raised in the Inland Empire, one of baseball's greatest legends honed his craft in San Bernardino County. Before entering Major League Baseball, a bright prospect named Ken Griffey Jr., affectionately known as "the Kid," played 58 games for the San Bernardino Spirit.¹ At the time, the Spirit was the Single-A minor league affiliate of the Seattle Mariners. Griffey starred for the Spirit and helped the team achieve attendance records. Once called up to the majors, Griffey never turned back. His Hall of Fame career lasted 22 seasons and included an MVP award, 13 All-Star Game appearances and over 500 home runs.² During the 1990s, Griffey was the game's most popular star with top brand endorsements with Nike, Pepsi and Nintendo, among others.

FREEKER



Although he made a total of \$151.7 million from baseball over his career, Ken Griffey Jr.'s total baseball earnings pale in comparison to those of his former teammate, Alex Rodriguez. As the highest career earner, Rodriguez made \$441.3 million from baseball over his 22-year career.³

(1) www.Baseball-Reference.com
 (2) Ibid.
 (3) Ibid.

Statements of Changes in Assets and Liabilities Agency Fund – Pacific Public Partners For the Years Ended June 30, 2017 and 2016 (Amounts in Thousands)

Total Agency Fund	alance 7 1, 2016	Add	litions	Deductions June 30 - \$ (1,007) \$ \$ (1,007) \$		Balan June 30,	
ASSETS							
Due from participants	\$ 1,007	\$	-	\$	(1,007)	\$	-
TOTAL ASSETS	\$ 1,007	\$	-	\$	(1,007)	\$	-
LIABILITIES							
Due to SBCERA	\$ 1,007	\$	-	\$	(1,007)	\$	-
TOTAL LIABILITIES	\$ 1,007	\$	-	\$	(1,007)	\$	-

Balance July 1, 2015		Additions		Deductions		alance 30, 2016
\$ 1,007	\$	-	\$	-	\$	1,007
\$ 1,007	\$	-	\$	-	\$	1,007
\$ 1,007	\$	-	\$	-	\$	1,007
\$ 1,007	\$	-	\$	-	\$	1,007
	July 1, 2015 \$ 1,007 \$ 1,007 \$ 1,007	July 1, 2015 Add \$ 1,007 \$ \$ 1,007 \$ \$ 1,007 \$	July 1, 2015 Additions \$ 1,007 \$ - \$ 1,007 \$ - \$ 1,007 \$ - \$ 1,007 \$ -	July 1, 2015 Additions Ded \$ 1,007 \$ - \$ \$ 1,007 \$ - \$ \$ 1,007 \$ - \$ \$ 1,007 \$ - \$	July 1, 2015 Additions Deductions \$ 1,007 \$ - \$ - \$ 1,007 \$ - \$ - \$ 1,007 \$ - \$ - \$ 1,007 \$ - \$ - \$ 1,007 \$ - \$ -	July 1, 2015 Additions Deductions June \$ 1,007 \$ - \$ - \$ \$ 1,007 \$ - \$ - \$ \$ 1,007 \$ - \$ - \$ \$ 1,007 \$ - \$ - \$ \$ 1,007 \$ - \$ - \$

Schedule of Administrative and Other Expenses

For the Years Ended June 30, 2017 and 2016 (Amounts in Thousands)

and the second		2017	2016
Actuarial accrued liability (AAL) ¹	\$	10,214,473	\$ 9,694,825
Statutory limit for administrative expenses (AAL x 0.21%)		21,450	20,359
Administrative expenses subject to statutory limit			
Personnel services	\$	6,357	\$ 5,320
Professional services		1,062	846
Operational miscellaneous		2,542	1,403
TOTAL ADMINISTRATIVE EXPENSES SUBJECT TO STATUTORY LIMIT		9,961	7,569
Other expenses not subject to statutory limit			
Actuarial services		253	148
Legal services (non-investment)		1,226	975
Technology infrastructure		1,723	1,541
TOTAL OTHER EXPENSES NOT SUBJECT TO STATUTORY LIMIT		3,202	2,664
TOTAL ADMINISTRATIVE AND OTHER EXPENSES ²	\$	13,163	\$ 10,233

Refer to Note 2 – Summary of Significant Accounting Policies (see section for Administrative Expenses), for further information.
 Does not include investment expenses, see Schedule of Investment Expenses.

Schedule of Investment Expenses For the Years Ended June 30, 2017 and 2016 (Amounts in Thousands)

Type of Investment Expense	2017	2016
Advisement fees		
Equity		
Domestic	\$ 548	\$ 475
International	15,272	1,733
TOTAL EQUITY	15,820	2,208
Fixed income		
Domestic	3,878	984
International	3,185	3,840
TOTAL FIXED INCOME	7,063	4,824
Real estate	6,777	5,577
Alternative	77,199	47,291
Investment consultant fees	2,361	2,404
Custodian fees	668	438
TOTAL ADVISEMENT FEES ¹	109,888	62,742
Other investment expenses		
Other investment expenses ²	51,904	26,876
Legal services	140	213
Investment department expense	2,058	2,253
TOTAL OTHER INVESTMENT EXPENSES	54,102	29,342
SECURITIES LENDING REBATES & BANK CHARGES	699	335
TOTAL INVESTMENT EXPENSES	\$ 164,689	\$ 92,419

(1) Advisement fees include amounts for investment management fees and performance fees. It does not include unrealized carried interest allocations.

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

Schedule of Payments to Consultants For the Years Ended June 30, 2017 and 2016 (Amounts in Thousands)

Type of Service ¹	2017	2016
Payments to consultants subject to the statutory limit		
Actuarial services	\$ 7	\$ 10
Audit services	52	83
Benchmarking services	20	-
Communication services	62	64
Human resource services	23	-
Medical/disability services	621	457
TOTAL PAYMENTS TO CONSULTANTS SUBJECT TO THE STATUTORY LIMIT ²	785	614
Payments to consultants not subject to the statutory limit		
Actuarial services	253	148
Custodian services	668	438
Information technology services	40	-
Investment services	2,361	2,404
Legal services	338	332
TOTAL PAYMENTS TO CONSULTANTS NOT SUBJECT TO THE STATUTORY LIMIT	3,660	3,322
TOTAL PAYMENTS TO CONSULTANTS	\$ 4,445	\$ 3,936

(1) Detail for fees paid to investment professionals is presented in the Investments section.

(2) Pursuant to GC section 31580.2, administrative expenses incurred in any one year are not to exceed twenty-one hundredths of one percent (0.21%) of SBCERA's actuarial accrued liabilities. Refer to Note 2 - Summary of Significant Accounting Policies (see section for Administrative Expenses), for further information.

ADE



INVESTMENTS Unaudited)

Section **3.0**

Section 3.0

(Unaudited)



Rising Stock

Colorado Rockies pitcher Tyler Chatwood finished the 2016 season with the best road game earned run average (ERA) of any pitcher in baseball.¹ Born in Redlands, Chatwood was drafted by the Los Angeles Angels of Anaheim out of high school, but after experiencing injuries early in his career, was later traded to the Rockies. In 2017 Chatwood had 8 wins and a career-high 120 strikeouts. He recently signed a three-year, \$38 million dollar deal with the Chicago Cubs.²

Moneyball:

The average ticket price for a Major League Baseball game varies widely by team. In 2016, the Boston Red Sox had the highest average ticket price at \$54.79, while the Arizona Diamondbacks were the most affordable at \$18.53 per seat.³

Creasman, Drew. (2017, September 28, 2016). "Chatwood dominates Giants, finishes 2016 as best road pitcher in MLB." BSNDenver.com.
 www.Baseball-Reference.com.
 Ozanian, Mike. (2017, March 22). "Baseball Ticket Prices for Every Team: Cubs Top MLB at \$151 (graphic)." Forbes.com.

Report on Investment Activity



Allan Martin Partner

November 28, 2017

Board of Retirement San Bernardino County Employees' Retirement Association 348 West Hospitality Lane, Third Floor San Bernardino, CA 92415-0014

Dear Board Members:

The overall objective of the San Bernardino County Employees' Retirement Association (SBCERA) is to ensure continued access to retirement, disability, death, and survivor benefits for current and future SBCERA participants. To ensure a solid foundation for the future of the Fund, SBCERA carefully plans and implements an investment program designed to produce superior long-term investment returns, while prudently managing the risk in the portfolio. Investment policy and asset allocation are reviewed and revised by the Board of Retirement, at least annually, to reflect the Fund's actuarial assumptions, accrued liabilities, and economic and investment outlook. The following is a report on the performance of the Fund for the year ended June 30, 2017 with background on the underlying market environment.

Market Review for the Year Ended June 30, 2017

Capital markets remained largely driven by an accommodative, yet tightening, U.S. Central Bank and stimulative actions by international Central Banks, resulting in the continuation of an eight year valuation expansion of growth assets (equities) in the U.S., and even stronger gains for international equities. Anti-establishment political movements globally, the U.S. election outcome, divergent Central Bank policies, historically low and broadly negative real interest rates, and concerns over growth in China contributed to higher levels of volatility in the first half of the year. Post the U.S. election, volatility around global risk factors was largely shrugged off by markets, resulting in U.S. equities posting their eighth consecutive positive year with a 17.9% return as measured by the S&P 500 Index. U.S. high quality fixed income investments produced a negative return (0.3%), measured by the Bloomberg Barclays U.S. Aggregate Bond Index, driven lower by 10 year U.S. Treasury yields spiking in the wake of U.S. elections. International developed-markets equities outperformed domestic equities by 2.4% as European equity returns overcame political uncertainty and reflected signs of relative economic strength. Emerging markets equities outperformed U.S. and developed-international equities by 5.8% and 3.4%, respectively. One year core bond returns, influenced by modestly rising short-term interest rates, ranged from (.3%) in the U.S. to (4.1%) internationally.

The SBCERA Investment Portfolio

The SBCERA total investment portfolio return, gross of fees, was 13.7% (13.3% net of fees) for the year ended June 30, 2017. By comparison, the median fund in the Investor Force peer group universe of large Public Funds returned 12.8% resulting in a top third ranking for the Fund. On a risk-adjusted basis the SBCERA Fund total return ranked in the first percentile for the one-year period. The Fund's five-year return for the period ended June 30, 2017 was 8.8% per annum, gross of fees (8.5% net of fees), outperforming the actuarial assumed rate of 7.5% and ranking below median in the peer group. SBCERA has chosen an asset allocation policy which reduces the Fund's volatility risk in order to more consistently meet its actuarial targets. The plan's five-year volatility, as measured by standard deviation, ranked in the second percentile of its peers (near least variable), resulting in a risk-adjusted return (as measured by the Sharpe Ratio) of 2.6%, which ranked in the first percentile of its peers.

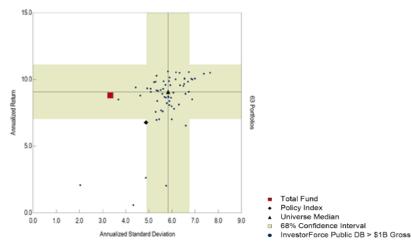
900 Veterans Blvd. | Ste. 340 | Redwood City, CA 94063-1741 | TEL: 650.364.7000 | www.nepc.com BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | SAN FRANCISCO

Report on Investment Activity

(Continued)



IF Public Funds Greater than \$1 Billion Universe¹ Risk-Return Comparison (Gross of Fees) 5 Years Ended June 30, 2017



With the majority of the global capital markets exhibiting relatively high valuations and divergent relative economic strength, the potential for downside risk and volatility are increasingly likely. Lower equity exposure and diversification can help protect portfolios from significant declines. SBCERA's portfolio continues to be positioned to withstand significant declines in equity markets.

NEPC, LLC serves as SBCERA's independent investment consultant and provides SBCERA with asset allocation guidance, quarterly economic and investment market updates and performance reviews, and investment manager monitoring and selection advice. SBCERA's custodian, State Street Bank and Trust Company, independently prepared the underlying performance data used in this report. Rates of return are represented using a time-weighted rate of return methodology based upon market values.

Sincerely,

allan a Martin

Allan Martin Partner

¹ As of June 30, 2017, the InvestorForce Public Funds Greater than \$1 Billion Universe was comprised of 53 observations. Universe rankings are based on gross of fee performance unless otherwise noted.

Outline of Investment Policies

As of June 30, 2017

General

The overall goal of SBCERA's investment program is to provide members with retirement benefits as required by the CERL. This is accomplished by employer and member contributions and the implementation of a carefully planned and executed long-term investment program.

The Board has exclusive control of all investments of the Plan and is responsible for the establishment of investment objectives, strategies and policies. The Board is composed of nine members and three alternates as follows:

- The County of San Bernardino Treasurer who serves in the capacity of ex-officio member (along with one alternate).
- Four members are appointed by the San Bernardino County Board of Supervisors.
- Two members are elected by active General members.
- One member is elected by active Safety members (along with one alternate).
- One member is elected by retired members (along with one alternate).

The Board is authorized to invest in any form or type of investment deemed prudent in the informed opinion of the Board. Members of the Board serve in a fiduciary capacity and must discharge their duties with respect to SBCERA and the investment portfolio as follows:

- Solely in the interest of and for the exclusive purpose of providing benefits to members and their beneficiaries; minimizing employer contributions thereto; and defraying reasonable expenses of administering the Plan.
- 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.
- To diversify the investments of the Plan so as to minimize the risk of loss and to maximize the rate of return, unless under circumstances it is clearly prudent not to do so.

Summary of Investment Objectives

The Board has adopted the *Investment Plan, Policy and Guidelines* which provide the framework for the management of SBCERA's investments. *The Investment Plan, Policy and Guidelines* establish the investment program goals, asset allocation policies, performance objectives, investment management policies, and risk controls. It also defines the principal duties of the Board and investment staff.

SBCERA's primary investment objective is to efficiently allocate and manage the assets on behalf of the members and their beneficiaries. These assets are managed on a total return basis. While recognizing the importance of the "preservation of capital," SBCERA also adheres to the principle that varying degrees of investment risk are generally rewarded with compensating returns in the long term.

Outline of Investment Policies

As of June 30, 2017 (Continued)

Summary of Investment Objectives (Continued)

The total investment portfolio return, over the long term, is directed toward achieving and maintaining a fully funded status for the Plan. Prudent risk-taking is warranted within the context of overall portfolio diversification to meet this objective. These activities are executed in a manner that serves the best interests of SBCERA's members and their beneficiaries.

Asset Allocation

A pension trust fund's strategic asset allocation policy, implemented in a consistent and timely manner, is generally recognized to be the largest determinant of investment performance. The asset allocation process determines an optimal long-term asset class mix (target allocation), which is expected to achieve a specific set of investment objectives.

Effective June 1, 2017, the Board adopted a new asset allocation plan. The following factors were used to determine this new plan:

- Projected actuarial assets, liabilities, benefit payments and contributions.
- Historical and expected long-term capital market risk and return behavior.
- Future economic conditions, including inflation and interest rate levels.
- SBCERA's current and projected funding status.

Over time, the Board implements the asset allocation plan by hiring investment managers to invest assets on SBCERA's behalf.

Use of Proxies

SBCERA has adopted a proxy voting policy which best serves the economic interest of its beneficiaries. Investments in equity securities in particular are best viewed within the context of a long-term time horizon. The resolution of management and shareholder issues must be directed towards maximizing equity value; not to entrench the current management team or alternatively, to subject the company to excessive outside influences. SBCERA will support management if management's position appears reasonable, is not detrimental to the value of equity ownership and reflects consideration of the impact of societal values and attitudes on the long-term viability of the corporation.

SBCERA shall support requests for additional disclosure if the requested information is on a subject relevant to the corporation's business, if it is of value to a majority of shareholders in evaluating the corporation or its managers, if the costs of disclosure are reasonable and if the information to be disclosed will not disadvantage the corporation either competitively or economically.

Investments (Unaudited)

Investment Professionals

As of June 30, 2017

INVESTMENT MANAGERS

Short-Term Cash Investment Funds

Ares Management, LLC GoldenTree Asset Management, LP Gramercy Funds Management, LLC Industry Ventures, LLC Mondrian Investment Partners, Ltd Russell Investment Group Standard Life Investments Limited State Street Global Advisors Zais Group, LLC

Emerging Market Debt

Golden Tree Asset Management, LP Gramercy Funds Management, LLC

U.S. Government Obligations and Other Municipals

GoldenTree Asset Management, LP Russell Investment Group State Street Global Advisors

Corporate Bonds

Apollo Arrowhead Management, LLC Apollo Global Management, LLC GoldenTree Asset Management, LP State Street Global Advisors Zais Group, LLC

Foreign Bonds

GoldenTree Asset Management, LP Gramercy Funds Management, LLC

Domestic Common and Preferred Stock

Apollo Global Management, LLC GoldenTree Asset Management, LP State Street Global Advisors Waterfall Asset Management, LLC

Foreign Common and Preferred Stock

Ares Management, LLC Ashmore Investment Management Limited GoldenTree Asset Management, LP Gramercy Funds Management, LLC Mondrian Investment Partners, Ltd Prudential Investment Management Russell Investment Group TOBAM

Securities Lending

State Street Global Advisors

Real Estate

American Realty Advisors Apollo Global Management, LLC Beacon Capital Partners, LLC Blackrock Realty Bryanston Realty Partners, LLC CB Richard Ellis Investors, LLC Fillmore Capital Partners, LLC Fortress Investment Group, LLC Invesco Real Estate Management Morgan Stanley Real Estate Fund Oaktree Capital Management, LP Partners Group PGIM Fund Management Limited Prudential Real Estate Investors **RREEF** America, LLC Square Mile Capital Management, LP Starwood Capital Group Global, LLC Tricon Capital Group, Inc. Walton Street Capital, LLC

Domestic Alternatives

Angelo, Gordon & Co., LP Apollo Capital Management, LP Apollo Global Management, LLC Ares Management, LLC Aurora Capital Group Beach Point Capital Management, LP Birch Grove Capital, LP The Catalyst Capital Group, Inc. Corrum Capital Declaration Management & Research, LLC Energy Spectrum Capital Fortress Worldwide Transportation and Infrastructure Investors, LP GoldenTree Asset Management, LP Gramercy Funds Management, LLC Hancock Timber Resource Group, Inc. Industry Ventures, LLC Kayne Anderson Capital Advisers, LP King Street Capital Management, LLC Lexington Partners MacKay Shields, LLC MD Sass-Waterfall Asset Management, LLC NB Alternative Fund Management, LLC Oaktree Capital Management, LP Pathway Capital Management, LLC Pinnacle Asset Management, LP Russell Investment Group Siguler Guff Advisers, LLC Starwood Energy Partners State Street Global Advisors TCW Asset Management Company Tennenbaum Capital Partners, LLC Timbervest, LLC Tricadia Capital Management, LLC Waterfall Asset Management, LLC Zais Group, LLC

Foreign Alternatives

Apollo Global Management, LLC BNY Alcentra Group Holdings, Inc. Cairn Capital Limited Halcyon Diversified Management, LLC Marathon Asset Management, LP Partners Group Standard Life Investments Limited York Capital Management

CONSULTANTS

Kreischer Miller Maples Finance NEPC, LLC

CUSTODIAL SERVICES

State Street Bank and Trust Company

LEGAL COUNSEL

Foley & Lardner, LLP

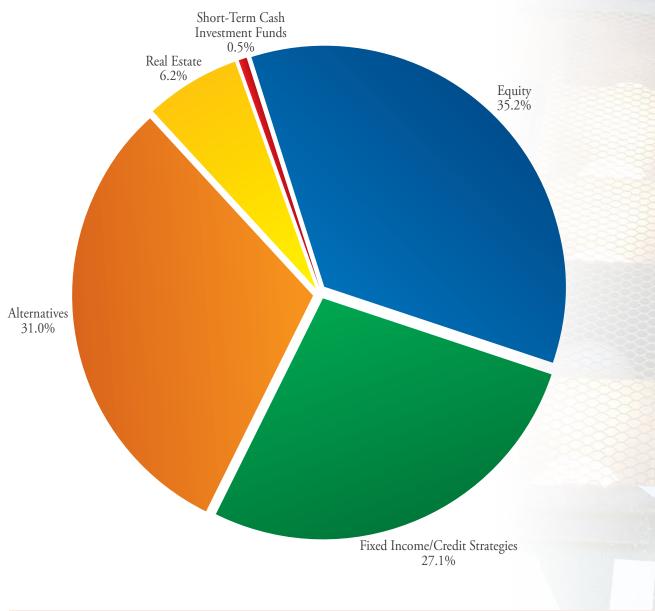
Investment Results

As of June 30, 2017

	Current Year 2017	Annualized 3-year	Annualized 5-year
Total Portfolio	13.26%	5.46%	8.52%
SB Policy Benchmark	7.86%	3.88%	6.77%
Cash Equivalents	(0.61%)	(5.28%)	(4.84%)
91 Day T-Bill Benchmark	0.49%	0.23%	0.17%
Equity Segment			
Domestic Equity	2.18%	0.87%	2.73%
Russell 3000 Benchmark	18.51%	9.10%	14.58%
Emerging Markets Equity	12.65%	(1.75%)	1.79%
MSCI Emerging Markets Benchmark	23.75%	1.07%	3.96%
International Equity	5.43%	3.09%	18.10%
MSCI EAFE Benchmark	20.27%	1.15%	8.69%
Fixed Income Segment			
Domestic Fixed Income	10.09%	6.28%	8.86%
BofAML High Yield Master II Benchmark	12.75%	4.48%	6.91%
Global and Emerging Market Fixed Income	13.40%	5.24%	7.64%
SBCERA Custom BC Global Benchmark	(3.80%)	(2.42%)	(0.36%)
Real Asset Segment			
Real Estate	2.68%	9.94%	9.19%
NCREIF Property Benchmark	7.27%	10.58%	10.69%
Timber	(3.58%)	0.72%	4.19%
NCREIF Timberland Benchmark	3.64%	5.67%	7.14%
Infrastructure	34.07%	5.78%	0.06%
CPI + 600BPS Benchmark	7.72%	6.97%	7.39%
Commodities	(2.51%)	(1.70%)	0.41%
Bloomberg Commodity Benchmark	(6.50%)	(14.81%)	(9.25%)
Other Alternative Segment			
Private Equity/Venture Capital	15.41%	10.94%	12.92%
State Street Private Equity Benchmark	13.67%	8.56%	10.56%
Alpha Pool	13.23%	3.35%	5.66%
HFRI Fund of Funds Composite Benchmark	6.29%	1.49%	3.83%
L			

Note: Calculations were prepared using a time-weighted rate of return and are net of fees.

Asset Allocation As of June 30, 2017

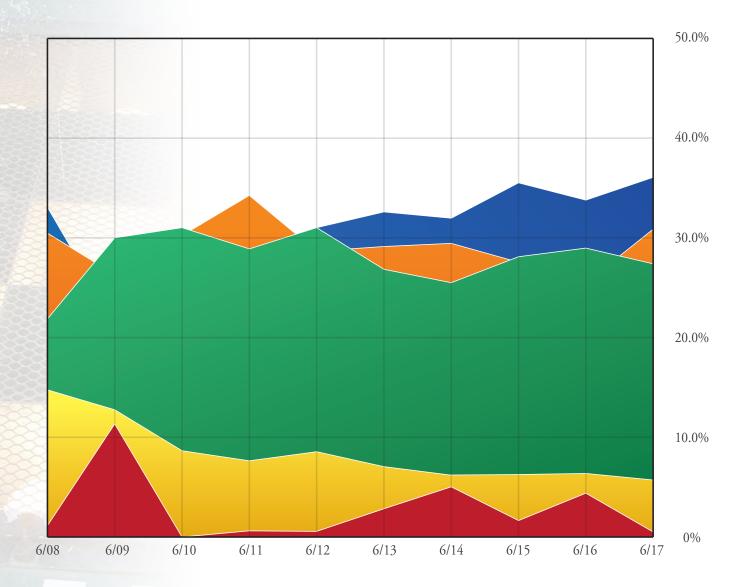


Equity	35.2%
Fixed Income/Credit Strategies	27.1%
Alternatives	31.0%
Real Estate	6.2%
Short-Term Cash Investment Funds	0.5%
TOTAL	100.0%

Note: This chart depicts investment asset classes as the net of physical assets combined with asset class exposure from alpha pool and overlay program exposure. See Target vs. Actual Asset Allocation Percentages on page 113, for further information.

Historical Asset Allocation

June 2008 through June 2017



Equity Fixed Income/Credit Strategies Alternatives Real Estate

Short-term Cash Investment Funds

Note: This chart depicts investment asset classes as the net of physical assets combined with asset class exposure from alpha pool and overlay program exposure. See Target vs. Actual Asset Allocation Percentages on page 113, for further information.

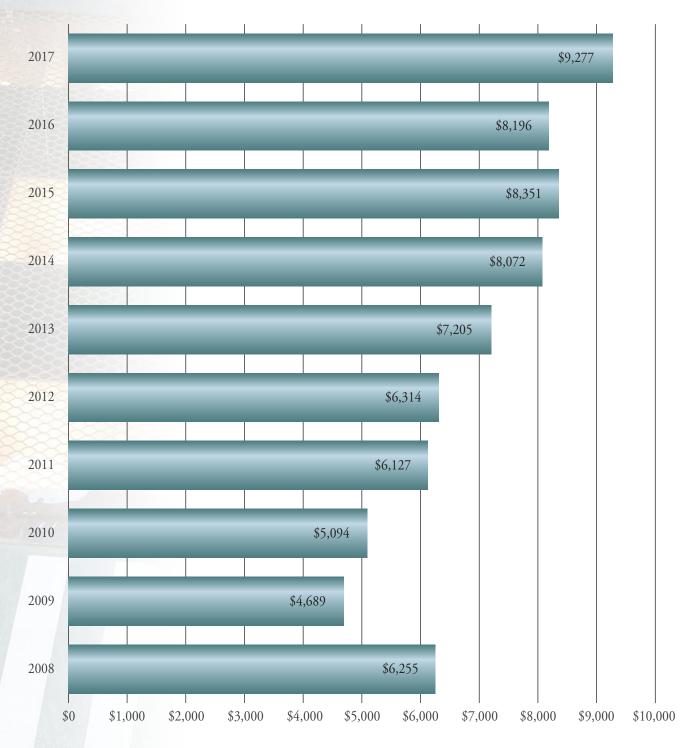
Target vs. Actual Asset Allocation Percentages As of June 30, 2017

			Target Ranges		
	Actual	Target	Minimum	Maximum	
Domestic equity	17.1%	13.0%	8.0%	18.0%	
International equity	18.1%	15.0%	10.0%	20.0%	
Domestic fixed income	14.3%	15.0%	10.0%	20.0%	
Global fixed income	12.8%	18.0%	13.0%	23.0%	
Private equity	13.5%	16.0%	6.0%	21.0%	
Absolute return	13.1%	7.0%	0.0%	12.0%	
Timber	2.1%	2.0%	0.0%	7.0%	
Infrastructure	0.8%	1.0%	0.0%	6.0%	
Commodities	1.5%	2.0%	(1.0%)	7.0%	
Real estate	6.2%	9.0%	0.0%	14.0%	
Short-term cash investment funds	0.5%	2.0%	0.0%	10.0%	

Note: This table excludes investments of cash collateral received on securities lending transactions, short-term cash held in outside investment pools and allocated commitments. In addition, this table depicts investment asset classes as the net of physical assets combined with asset class exposure from alpha pool and overlay program exposure. Therefore, the Actual results will not compare to the Investment Summary on page 118.

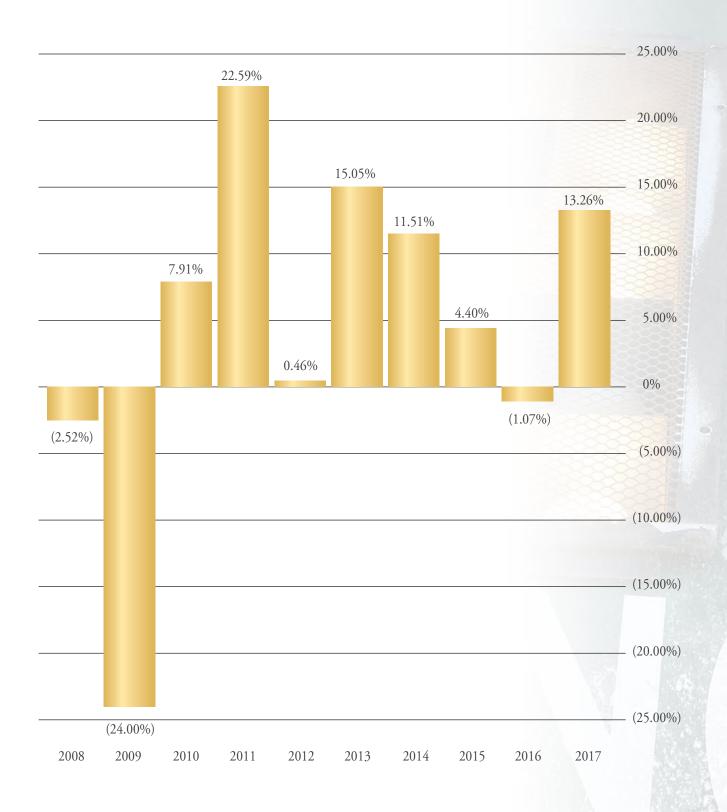
Fair Value Growth of Plan Assets Held for Investments

For 10 Years Ended June 30, 2017 (Amounts in Millions)



Note: This chart depicts growth of plan assets held for investment excluding investments of cash collateral received on securities lending transactions. For the year ended June 30, 2017, investments of cash collateral received on securities lending amount to \$103.71 million.

History of Investment Performance For the Years Ended June 30, 2008 through 2017 (Based on Fair Value)



Note: Calculations were prepared using a time-weighted rate of return and are net of fees.

List of Largest Assets Held As of June 30, 2017 (Amounts in Thousands)

Largest Equity Holdings (By Fair Value)

Des	cription	Shares	Fair Value
1.	Sacher Funding LTD PVE Sacher Bawag PVE	197	\$ 82,523
2.	CV Colombian Acquisition LP	35	48,342
3.	Sutherland Asset Management REIT	2,043	30,334
4.	Namoya GSA Holdings	12	17,144
5.	TB Secured Holdings LLC	10,031	13,846
6.	LTBI Holdings Common Stock	8,531	13,361
7.	Frontera Energy Corp Common Stock	820	21,477
8.	NRG Yield Inc Class A Common Stock	639	10,910
9.	Alcentra Capital Corp Common Stock	725	9,860
10.	Samsung Electronics Co LTD Common Stock	2,572	5,343
TO	TAL OF LARGEST EQUITY HOLDINGS		\$ 253,140
TO	TAL EQUITY HOLDINGS		\$ 1,939,819

Largest Fixed Income Holdings

(By Fair Value)

Description			Par	F	air Value
1.	Apollo Craft Mid Cap Trade	\$	25,000	\$	26,180
2.	Banro Corporation SR Secured		24,187		20,317
3.	Craft LTD 2017 1A CLN 144A		20,000		20,004
4.	Treasury Bill 10/17		18,500		18,451
5.	Odebrecht Finance LTD		62,649		12,669
6.	Zais CLO 2 LTD		16,725		12,352
7.	Bluemountain CLO LTD		10,000		10,000
8.	EB Holdings EUR Pik Term Loan		26,806		9,745
9.	Source Interlink Companies In Term Loan B		9,214		9,108
10.	Dryden Senior Loan Fund		9,000		9,008
TOTAL OF LARGEST FIXED INCOME HOLDINGS					147,834
TO	TAL FIXED INCOME HOLDINGS			\$	512,678

Note: The holdings schedules pertain to holdings of equity interests or individual securities; they do not reflect SBCERA's investments in commingled funds and may not be publicly traded. A complete list of portfolio holdings is available upon request.

Schedule of Fees and Commissions

For the Year Ended June 30, 2017 (Amounts in Thousands)

Schedule of Fees

Type of Fees	Assets Under Management at Fair Value	Fees ¹
Investment Managers' Fees		
Equity managers	\$ 1,939,819	\$ 15,820
Fixed income managers	512,678	7,063
Real estate managers	494,425	6,777
Alternative managers	5,118,382	77,199
Short-term cash & securities lending collateral	1,315,271	-
TOTAL INVESTMENT MANAGERS' FEES	\$ 9,380,575	106,859
Other Investment Service Fees		
Custodian fees		668
Legal services		140
Investment consultant fees		2,361
TOTAL OTHER INVESTMENT SERVICE FEES		3,169
SECURITIES LENDING FEES		699
TOTAL FEES		\$ 110,727

Schedule of Commissions

Brokerage Firm	Total Shares Traded (Actual Shares)	Commissions Per Share (Actual Dollars)	Total missions	% of Total Commissions ³
Morgan Stanley	446,371	\$ 1.74432	\$ 779	72.53%
KCG Americas, LLC	2,308,980	0.02809	65	6.05%
Merrill Lynch, Pierce, Fenner & Smith, Inc	2,779,424	0.02187	61	5.68%
Deutsche Bank Securities, Inc	432,279	0.05000	22	2.05%
Other ²	32,792,793	Various ²	147	13.69%
TOTAL	38,759,847		\$ 1,074	100.00%

(1) Fees include amounts for investment management fees and performance fees. It does not include unrealized carried interest allocations and other indirect flow-through investment expenses such as organizational expenses in limited partnership structures.

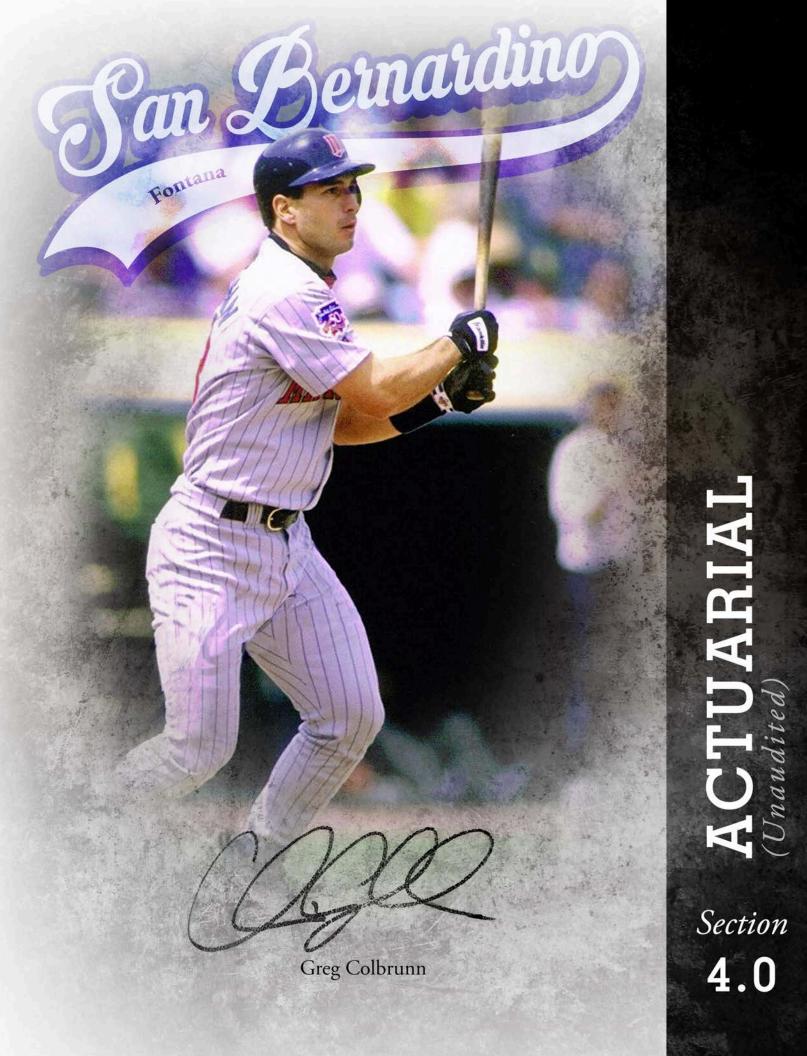
(2) Includes approximately 61 additional firms, each with less than 2.00% of total commissions. The average commission per share is .00448.

(3) Results are adjusted for rounding.

Note: SBCERA has commission recapture arrangements with Russell Investment Group.

Investment Summary As of June 30, 2017 (Amounts in Thousands)

Type of Investment	Fair Value	Percent of Total Fair Value
Short-term cash investment funds	\$ 1,211,562	12.92%
Emerging market debt	53,462	0.57%
United States government obligations and other municipals	109,778	1.17%
Corporate bonds	289,093	3.08%
Foreign bonds	60,345	0.64%
Domestic common and preferred stock	746,211	7.95%
Foreign common and preferred stock	1,193,608	12.72%
Investments of cash collateral received on securities lending	103,709	1.11%
Real estate	494,425	5.27%
Domestic alternatives	3,621,665	38.61%
Foreign alternatives	1,496,717	15.96%
TOTAL INVESTMENTS, AT FAIR VALUE	\$ 9,380,575	100.00%



Section 4.0

(Unaudited)

Greg Colbrunn

Fontana's Finest

Greg Colbrunn was born in Fontana and graduated from Fontana High School.¹ A journeyman player, Colbrunn provided tremendous value to each of his teams and boasted a truly impressive .289 batting average over his 13-year career.² A member of the 2001 Arizona Diamondbacks World Series team, Colbrunn's best season came in 1995 as a Florida Marlin, when he hit 23 home runs and drove in 89 RBI's.³ Since retiring as a player, he has gone on to a successful career as a hitting coach in the minor leagues.

Moneyball:

Major League Baseball has a pension plan whereby players are fully vested after 43 games. While prorated pensions exist for players who played less than 10 years, the formula is highest for those with over 10 years of service who begin collecting benefits at the age of 62.⁴

(1) www.Baseball-Reference.com
 (2) Ibid.
 (3) Ibid.
 (4) Stinson, Sonya. (2012, September 25). "Retirement Benefits of Professional Athletes." Bankrate.com.

Actuary Certification Letter

★ Segal Consulting

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

November 28, 2017

Board of Retirement San Bernardino County Employees' Retirement Association 348 West Hospitality Lane, Third Floor San Bernardino, CA 92415-0014

Re: San Bernardino County Employees' Retirement Association June 30, 2017 Actuarial Valuation for Funding Purposes

Dear Members of the Board:

Segal Consulting (Segal) prepared the June 30, 2017 annual actuarial valuation of the San Bernardino County Employees' Retirement Association (SBCERA). We certify that the valuation was performed in accordance with generally accepted actuarial principles and practices and SBCERA's funding policy that was last reviewed with the Board of Retirement in 2014. 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).

As part of the June 30, 2017 actuarial valuation, Segal conducted an examination of all participant data for reasonableness. However, the scope of this examination does not qualify as an audit. Summaries of the employee data used in performing the actuarial valuations over the past several years are provided in our valuation report. We did not audit the Association's financial statements, however, the Association's auditor attested to the Association's financial statements. For actuarial valuation purposes, retirement 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 a five-year period.

One of the general goals of an actuarial valuation is to establish contribution rates, which, over time, will remain level as a percentage of payroll 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).

In 2002, the Board of Retirement elected to amortize the Association's UAAL as of June 30, 2002 over a declining (or closed) 20-year period. Any change in UAAL that arises due to actuarial gains or losses or due to changes in actuarial assumptions or methods at each

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Actuary Certification Letter

(Continued)

Board of Retirement San Bernardino County Employees' Retirement Association November 28, 2017 Page 2

valuation after June 30, 2002 is amortized over its own declining (or closed) 20-year period. Effective with the June 30, 2012 valuation, any change in UAAL that arises due to plan amendments is amortized over its own declining (or closed) 15-year period (with the exception of a change due to retirement incentives, which is amortized over its own declining (or closed) period of up to 5 years). The progress being made towards meeting the funding objective through June 30, 2017 is illustrated in the Schedule of Funding Progress.

Certain information found in the Notes to the Basic Financial Statements and the Required Supplementary Information (RSI) included in the Financial Section was prepared by the Association based on the results of the Governmental Accounting Standards (GAS) 67 actuarial valuation as of June 30, 2017 prepared by Segal. For the Financial Section of the Comprehensive Annual Financial Report (CAFR), Segal provided the Schedule of Changes in Net Pension Liability of Participating Employers and Related Ratios and Schedule of Employer Contributions as shown in the RSI. A listing of the other supporting schedules prepared by the Association based on additional information provided by Segal and the results of the actuarial valuation as of June 30, 2017 for funding purposes is listed below.

- > Schedule of Funding Progress
- > Development of Actuarial Value of Assets
- > Schedule of Active Member Valuation Data
- > Schedule of Retirants & Beneficiaries
- Solvency Test
- > Analysis of Financial Experience
- > Ratio of Current Compensation-to-Compensation Anticipated at Retirement
- > Probabilities of Separation from Active Service
- > Expectation of Life
- > Retirees and Beneficiaries Added to and Removed from Rolls
- > Retired Members by Type of Benefit
- > Average Benefit Payments
- > Membership History
- > Average Monthly Retirement Benefits



Actuary Certification Letter

(Continued)

Board of Retirement San Bernardino County Employees' Retirement Association November 28, 2017 Page 3

The valuation assumptions included in the Actuarial Section were adopted by the Board of Retirement based on the 2017 Actuarial Experience Study (for both the economic and non-economic assumptions). It is our opinion that the assumptions used in the June 30, 2017 valuation produce results, which, in aggregate, reflect the future experience of the retirement plan. Actuarial valuations are performed on an annual basis. An experience analysis is performed every three years and the next experience analysis is due to be performed in 2020.

In the June 30, 2017 valuation, the ratio of the valuation assets to actuarial accrued liabilities (funded percentage) decreased from 81.89% to 78.69%. The average employer contribution rate has increased from 27.55% of payroll to 30.91% of payroll, while the average member contribution rate has increased from 10.77% of payroll to 11.32% of payroll.

Under the asset smoothing method, the total unrecognized investment loss is \$98 million as of June 30, 2017. This investment loss will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years. The deferred loss of \$98 million represents about 1.1% of the market value of assets as of June 30, 2017. Unless offset by future investment gains or other favorable experience, the recognition of the \$98 million market loss is expected to have an impact on the Association's future funded percentage and contribution rate requirements. This potential impact may be illustrated as follows:

- ➤ If the deferred losses were recognized immediately in the actuarial value of assets, the funded ratio would decrease from 78.69% to 77.87%.
- If the deferred losses were recognized immediately in the actuarial value of assets, the average employer contribution rate would increase from 30.91% to about 31.40% of payroll.

We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Sincerely,

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

John Monroe

John Monroe, ASA, MAAA, EA Vice President and Actuary

AW\bqb



Schedule of Funding Progress For the Years Ended June 30, 2008 through 2017 (Amounts in Thousands)

Actuarial Valuation Date	(a) Actuarial Value of Assets ¹	(b) Actuarial Accrued Liability (AAL) ²	(b-a) Unfunded AAL (UAAL)	(a/b) Funded Ratio	(c) Projected Total Compensation	[(b-a)/c] UAAL as a Percentage of Projected Total Compensation
6/30/2008	\$ 6,341,531	\$ 6,773,629	\$ 432,098	93.62%	\$ 1,219,562	35.43%
6/30/2009	6,383,388	7,013,534	630,146	91.02%	1,226,431	51.38%
6/30/2010 ³	6,367,232	7,444,986	1,077,754	85.52%	1,250,193	86.21%
6/30/2011	6,484,507	8,189,646	1,705,139	79.18%	1,244,555	137.01%
6/30/2012	6,789,492	8,606,577	1,817,085	78.89%	1,260,309	144.18%
6/30/2013 ⁴	7,204,918	9,088,636	1,883,718	79.27%	1,262,752	149.18%
6/30/2014 ⁴	7,751,309	9,694,825	1,943,516	79.95%	1,267,667	153.31%
6/30/2015 ⁴	8,255,353	10,214,473	1,959,120	80.82%	1,309,095	149.65%
6/30/2016 ⁴	8,736,959	10,669,688	1,932,729	81.89%	1,346,408	143.55%
6/30/20175	9,385,977	11,928,310	2,542,333	78.69%	1,406,470	180.76%

(1) Includes assets held for Survivor Benefits, Burial Allowance, General Retiree Subsidy (GRS), and Excess Earnings (EE) reserves. Some years may not include the GRS and EE reserves. (2) Includes labilities held for Survivol benefits, burlar Antowance, General Retiree Subsidy (GRS), and Excess Earnings (EE) reserves. Solide yeas may not include the GRS and EE reserves.
 (3) Does not reflect the subsequent transfer of \$40.6 million from the General Retiree Subsidy reserve to the Current Service reserve.
 (4) Does not reflect the present value of additional future contributions payable from the County of San Bernardino to SBCERA related to the Crest Forest Fire District transfer.

(5) Does not reflect the present value of additional future contributions payable from the County of San Bernardino to SBCERA related to the Crest Forest Fire District transfer and from the Barstow Fire Protection District and the City of Big Bear Lake to SBCERA for their transfers.
 Note: Refer to the Required Supplementary Information section (see Schedule of Employer Contributions), and Note 3 – Contribution Requirements, for further information.

Latest Actuarial Valuation Methods and Assumptions

As of June 30, 2017

The Entry Age Actuarial Cost Method was used in conjunction with the following actuarial assumptions. The Unfunded Actuarial Accrued Liability (UAAL) is funded over 20 years for all UAAL prior to June 30, 2002; any changes in UAAL after June 30, 2002 are amortized over a 20-year closed period effective with each valuation. Effective June 30, 2012, any changes in UAAL due to actuarial gains or losses or due to changes in actuarial assumptions or methods will be amortized over a 20-year closed period effective with each valuation. Any change in UAAL that arises due to plan amendments is amortized over its own declining 15-year period (with exception of a change due to retirement incentives, which is amortized over a declining period of up to 5 years). An analysis of the Plan's non-economic experience was last performed as of June 30, 2017 to establish the validity of these assumptions. An actuarial valuation is performed annually. The actuarial assumptions and methods listed below were recommended by the Plan's independent actuary, Segal Consulting, and were approved by the Board.

1.	Investment Rate of Return	7.25% net of pension plan investment expense, including inflation.
2.	Interest Credited to Member Accounts	3.00% (Actual rate is based on six-month Treasury rate).
3.	Inflation	3.00% per annum.
4.	Salary Scale	As shown in Table on page 135.
5.	Asset Valuation	Smoothed market (five-year average). See Development of Actuarial Value of Assets on page 126 which shows the development of the assets. As of June 30, 2017, the net unrecognized deferred loss is \$97.54 million.
6.	Gains and Losses	Gains and losses are reflected in the UAAL. They are funded over the period described above.
7.	Spouses and Dependents	65% of male members and 55% of female members assumed married at retirement or pre-retirement death, with female (or male) spouses assumed two (or three) years younger (or older) than their spouses, respectively.
8.	Rates of Termination of Employment	As shown in Table on page 137.
9.	Years of Life Expectancy After Retirement	As shown in Table on page 138.
10.	Years of Life Expectancy After Disability	As shown in Table on page 138.
11.	Mortality Rates:	
	General	RP-2014 Healthy Annuitant Mortality Table, set forward one year for males, projected generationally with the two-dimensional MP-2016 projection scale; For disabled members, set forward seven years; Weighted 30% male, 70% female.
	Safety	RP-2014 Healthy Annuitant Mortality Table, set back one year, projected generationally with the two-dimensional MP-2016 projection scale; For disabled members, set back one year; Weighted 90% male, 10% female.
12.	Reciprocity Assumption	40% of General members and 60% of Safety members who terminate with a vested benefit are assumed to enter a reciprocal system. Assume 4.50% and 4.70% compensation increases per annum, respectively.
13.	Deferral Age for Vested Terminations	Age 59 for General members; Age 53 for Safety members.
14.	Cost-of-Living Adjustments	Contingent upon consumer price index with a 2.00% maximum per annum.
15.	Administrative Expense Assumption Load	0.70% of payroll allocated to both the employer and member based on the components of the total average contribution rate (before expenses) for the employer and member.
16.	Recent Changes	The results of the valuation reflect economic and non-economic changes as recommended and adopted by the Board for the June 30, 2017 valuation. These changes included increases/decreases to the investment rate of return, inflation, retirement, mortality, termination, disability incidence, and individual salary rates.

Note: The above methods and assumptions were selected by the Plan's actuary as being appropriate for the Plan and are adopted for the year ended June 30, 2017.

Development of Actuarial Value of Assets

As of June 30, 2017 (Amounts in Thousands)

It is desirable to have level and predictable Plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to fair value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the Plan costs are more stable. The amount of the adjustment to recognize fair value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

1.	Fair value of assets					\$ 9,288,441
2.	Calculation of unrecognized return					
		Ori	ginal Amount	Unrec	ognized Return	
	a) Year ended June 30, 2017 ¹	\$	483,677	\$	386,942	
	b) Year ended June 30, 2016 ¹		(700,602)		(420,361)	
	c) Year ended June 30, 2015 ¹		(318,629)		(127,452)	
	d) Year ended June 30, 2014 ¹		316,679		63,336	
	e) TOTAL UNRECOGNIZED RETURN ²					 (97,535)
3.	Actuarial value of assets (1) - (2e)					9,385,9 77 ⁴
4.	Actuarial value as a percentage of fair value (3) / (1)				101.1%
5.	Non-valuation reserves					
	a) Burial allowance reserve					686
	b) TOTAL					 686
6.	PRELIMINARY VALUATION VALUE OF ASSETS (3) - (5b)					\$ 9,385,290 ⁴
7.	VALUATION VALUE OF ASSETS ³					\$ 9,406,929

(1) Recognition at 20% per year over five years.

(2) Deferred (unrecognized) return amount as of June 30, 2017 recognized in each of the next four years as follows:

(a) Amount recognized during 2017/2018 \$ (43,775)

- (b) Amount recognized during 2018/2019 (107,111)
- (c) Amount recognized during 2019/2020 (43,385)

(d) Amount recognized during 2020/2021 _____96,736 Total ______\$ (97,535)

(3) Includes \$21.6 million that represents the present value of additional future contributions payable from the County of San Bernardino to SBCERA related to the Crest Forest Fire District transfer and from the Barstow Fire Protection District and the City of Big Bear Lake to SBCERA for their transfers.

(4) Results are adjusted for rounding.

Actuarial (Unaudited)

Schedule of Active Member Valuation Data

For the Years Ended June 30, 2008 through 2017

Valuation Date	Number of Participating Employers ¹	Number of Active Members		Annual Payroll	Annual Average Payroll	% Increase/(Decrease) in Average Payroll
6/30/2008	1 /		_	, ,	,	0 /
General	17	17,197	\$	1,042,739,850	\$ 60,635	8.25%
Safety	4	2,217		176,821,803	79,757	6.71%
TOTAL	18	19,414	\$	1,219,561,653	\$ 62,819	7.98%
6/30/2009						
General	18	16,669	\$	1,032,135,626	\$ 61,919	2.12%
Safety	4	2,286		194,295,650	84,994	6.57%
TOTAL	19	18,955	\$	1,226,431,276	\$ 64,702	3.00%
6/30/2010						
General	18	17,255	\$	1,054,377,283	\$ 61,106	(1.31%)
Safety	4	2,265		195,815,678	86,453	1.72%
TOTAL	19	19,520	\$	1,250,192,961	\$ 64,047	(1.01%)
6/30/2011						
General	19	17,070	\$	1,045,601,554	\$ 61,254	0.24%
Safety	4	2,188		198,953,186	90,929	5.18%
TOTAL	20	19,258	\$	1,244,554,740	\$ 64,625	0.90%
6/30/2012						
General	18	17,155	\$	1,061,588,530	\$ 61,882	1.03%
Safety	4	2,151		198,720,507	92,385	1.60%
TOTAL	19	19,306	\$	1,260,309,037	\$ 65,281	1.01%
6/30/2013						
General	16	17,241	\$	1,061,419,963	\$ 61,564	(0.51%)
Safety	3	2,160		201,332,001	93,209	0.89%
TOTAL	17	19,401	\$	1,262,751,964	\$ 65,087	(0.30%)
6/30/2014						
General	16	17,314	\$	1,067,502,671	\$ 61,655	0.15%
Safety	3	2,183		200,164,139	91,692	(1.63%)
TOTAL	17	19,497	\$	1,267,666,810	\$ 65,019	(0.11%)
6/30/2015						
General	16	17,726	\$	1,099,968,966	\$ 62,054	0.65%
Safety	3	2,212		209,126,288	94,542	3.11%
TOTAL	17	19,938	\$	1,309,095,254	\$ 65,658	0.98%
6/30/2016						
General	16	18,165	\$	1,120,811,245	\$ 61,702	(0.57%)
Safety	3	2,373		225,596,956	 95,068	0.56%
TOTAL	17	20,538	\$	1,346,408,201	\$ 65,557	(0.15%)
6/30/2017						
General	16	18,619	\$	1,170,058,184	\$ 62,842	1.85%
Safety	3	2,491		236,411,926	94,906	(0.17%)
TOTAL	17	21,110	\$	1,406,470,110	\$ 66,626	1.63%

(1) Participating employers may have both General and Safety members.

Note: Refer to the Latest Actuarial Valuation Methods and Assumptions, in this section, for information on recent changes to actuarial methods and assumptions. Refer to the Statistical section, Participating Employers, for further information on employers who joined or withdrew from SBCERA.

Schedule of Retirants and Beneficiaries

For the Years Ended June 30, 2008 through 2017

- 11	Nu	mber o	f Member	'S	Annual Allowances						
Year ¹	Beginning of Year	Added During Year	Removed During Year	End of Year	Beginning Annual Allowance	Added During Year	Removed During Year	Annual Allowance ²	% Increase in Annual Allowance	Monthly	Average Annual Allowance ²
7/07 to 6/08	7,617	592	(238)	7,971	\$ 205,998,000	\$ 25,876,000	\$ (4,242,000)	\$ 227,632,000	10.50%	\$ 2,380	\$ 28,558
7/08 to 6/09	7,971	748	(200)	8,519	227,632,000	32,330,000	(3,581,000)	256,381,000	12.63%	2,508	30,095
7/09 to 6/10	8,519	553	(229)	8,843	256,381,000	27,380,000	(4,929,000)	278,832,000	8.76%	2,628	31,531
7/10 to 6/11	8,843	694	(272)	9,265	278,832,000	35,099,000	(5,375,000)	308,556,000	10.66%	2,775	33,303
7/11 to 6/12	9,265	690	(219)	9,736	308,556,000	35,576,000	(4,309,000)	339,823,000	10.13%	2,909	34,904
7/12 to 6/13	9,736	755	(318)	10,173	339,823,000	38,851,000	(7,910,000)	370,764,000	9.11%	3,037	36,446
7/13 to 6/14	10,173	756	(311)	10,618	370,764,000	35,254,000	(7,407,000)	398,611,000	7.51%	3,128	37,541
7/14 to 6/15	10,618	796	(286)	11,128	398,611,000	39,452,000	(7,056,000)	431,007,000	8.13%	3,228	38,732
7/15 to 6/16	11,128	803	(301)	11,630	431,007,000	42,262,000	(8,396,000)	464,873,000	7.86%	3,331	39,972
7/16 to 6/17	11,630	869	(320)	12,179	464,873,000	49,799,000	(9,210,000)	505,462,000	8.73%	3,459	41,503

Amounts are listed as of the actuarial valuation date.
 Excludes monthly benefits for Supplemental Disability, Survivor Benefits, General Retiree Subsidy and beneficiaries that are only receiving Survivor Benefit amounts.

Solvency Test For the Years Ended June 30, 2008 through 2017 (Amounts in Thousands)

	Aggr	egate Accrued Li	abilities for		Portion of A	ccrued Liabilit Valuation Asse	ty Covered by ts
Actuarial Valuation Date	(1) Active Member Contributions	(2) Retirees, Beneficiaries & Vested Participants	(3) Active Members (Employer Financed Portion)	Actuarial Value of Assets	(1)	(2)	(3)
6/30/2008	\$ 851,932	\$ 3,244,459	\$ 2,677,238	\$ 6,341,531	100%	100%	83.86%
6/30/2009	885,519	3,325,726	2,802,289	6,383,388	100%	100%	77.51%
6/30/2010	934,641	3,573,651	2,936,694	6,367,232	100%	100%	63.30%
6/30/2011	969,913	4,033,102	3,186,631	6,484,507	100%	100%	46.49%
6/30/2012	1,004,751	4,330,245	3,271,581	6,789,492	100%	100%	44.46%
6/30/2013	1,037,767	4,699,518	3,351,351	7,204,918	100%	100%	43.79%
6/30/2014	1,048,914	5,231,227	3,414,684	7,751,309	100%	100%	43.08%
6/30/2015	1,059,688	5,587,189	3,567,596	8,255,353	100%	100%	45.09%
6/30/2016	1,084,761	5,992,772	3,592,155	8,736,959	100%	100%	46.20%
6/30/2017	1,110,149	6,714,830	4,103,331	9,385,977	100%	100%	38.04%

Summary of Major Plan Provisions As of June 30, 2017

		TIER 1	TIER 2
1	Eliath:lite.	(SBCERA membership date is prior to January 1, 2013)	(SBCERA membership date is on or after January 1, 2013)
1. 2.	Eligibility Definition of Salary	First day of employment ¹ . Highest 12 consecutive months of compensation earnable.	First day of employment ¹ . Highest 36 consecutive months of pensionable compensation
З.	Service Retirement	Normal Retirement Age The later of: (1) age 55 for General members or (2) age 50 for Safety members or (3) the age at which the member vests in his/her benefits under the CERL, but not later than age 70.	Normal Retirement Age The later of: (1) age 55 for General members or (2) age 50 for Safety members or (3) the age at which the member vests in his/her benefits under the CERL, but not later that age 70.
		Early Retirement Age 70 (regardless of service credit) or age 50 and 10 years of service credit or 30 years of service credit for General members and 20 years of service credit for Safety members (regardless of age). Active part-time employees at age 55 with a minimum of 10 years of membership and 5 years of service credit.	Early Retirement Age 70 (regardless of service credit) or age 52 and 5 years o service credit for General members or age 50 and 5 years o service credit for Safety members.
		Benefit At normal retirement age, 2% times final average compensation for every year of "General" service credit for benefit and 3% times final average compensation for every year of "Safety" service credit for benefit.	Benefit At age 67, 2.5% times final average compensation for every year of "General" service credit for benefit. At age 57, 2.7% times final average compensation for every year of "Safety service credit for benefit.
		Benefit Adjustments Reduced for retirement before age 55 for General members (age 50 for Safety members). Increased for retirement after age 55 up to age 65 (General members only).	Benefit Adjustments Reduced for retirement before age 67 for General member (age 57 for Safety members).
4.	Disability Retirement	Non-Service Connected (must have five years of service credit to be eligible).	Non-Service Connected (must have five years of service credit to be eligible).
		Members entering on or before December 31, 1980: Greater of 1.8% of final average compensation per year of service, with a maximum of 33-1/3% if projected service is used or service retirement benefit (if eligible).	Members entering on or after January 1, 2013: 20% of final average compensation for the first five year plus 2% of final average compensation per year of service in excess of five, with a maximum of 40% of compensation of
		Members entering on or after January 1, 1981: 20% of final average compensation for the first five years plus 2% of final average compensation per year of service in excess of five, with a maximum of 40% of compensation or service retirement benefit (if eligible).	service retirement benefit (if eligible).
		Service Connected Greater of 50% of final average compensation or service retirement benefit (if eligible).	Service Connected Greater of 50% of final average compensation or servic retirement benefit (if eligible).

(1) Membership may be delayed for the purpose of establishing reciprocity with another public retirement system as described in the CERL. Employees who have attained age 60 prior to employment may waive membership within 90 days following initial appointment to an eligible position.

Note: For funding and accounting purposes, SBCERA uses the same actuarial assumptions, except that there is a two-year lag in the assumptions used for funding purposes versus the current year assumptions used to calculate total pension liability. Refer to Note 3 - Contribution Requirements, for further information.

Summary of Major Plan Provisions As of June 30, 2017 (Continued)

		TIER 1 (SBCERA membership date is prior to January 1, 2013)	TIER 2 (SBCERA membership date is on or after January 1, 2013)
5.	Death Before Retirement ¹	Less Than 5-Years of Service Credit Refund of contributions plus 1/12 of compensation per year of service credit up to 50% of annual compensation.	Less Than 5-Years of Service Credit Refund of contributions plus 1/12 of compensation per year of service credit up to 50% of annual compensation.
		5 or More Years of Service Credit Lump sum refund of contributions plus 1/12 of compensation per year of service up to six months compensation.	5 or More Years of Service Credit Lump sum refund of contributions plus 1/12 of compensation per year of service up to six months compensation.
		Optional Death Allowance (If eligible for disability or service retirement):	Optional Death Allowance (If eligible for disability or service retirement):
		Monthly payment equal to 60% of member's accrued allowance.	Monthly payment equal to 60% of member's accrued allowance.
		Modified Optional Death Allowance Lump sum of 1/12 of compensation per year of service up to six months compensation plus a reduced monthly benefit depending on the age of beneficiary.	Modified Optional Death Allowance Lump sum of 1/12 of compensation per year of service up to six months compensation plus a reduced monthly benefit depending on the age of beneficiary.
		If Service Connected Monthly payment equal to 50% of final monthly compensation.	If Service Connected Monthly payment equal to 50% of final monthly compensation.
		If Service Connected and Safety Member Additional lump sum payment of one-year compensation plus a monthly benefit for minor children.	If Service Connected and Safety Member Additional lump sum payment of one-year compensation plus a monthly benefit for minor children.
6.	Death After Retirement ¹	\$1,000 lump sum burial allowance (\$250 is discretionary, funded from undesignated excess earnings and is subject at all times to the availability of funds in the Burial Allowance reserve).	\$1,000 lump sum burial allowance (\$250 is discretionary, funded from undesignated excess earnings and is subject at all times to the availability of funds in the Burial Allowance reserve).
		Service Retirement or Non-Service Disability² Monthly payment equal to 60% of member's allowance.	Service Retirement or Non-Service Disability ² Monthly payment equal to 60% of member's allowance.
		Service Disability ² Monthly payment equal to 100% of member's allowance.	Service Disability ² Monthly payment equal to 100% of member's allowance.
7.	Survivor Benefits	General Members Only Monthly survivor benefit if General member completed at least 18 months of continuous membership with SBCERA including a one-time burial allowance of \$255.	General Members Only Monthly survivor benefit if General member completed at least 18 months of continuous membership with SBCERA including a one-time burial allowance of \$255.
8.	Vesting	After five years of service.	After five years of service.
0		Must leave contributions on deposit.	Must leave contributions on deposit.
9.	Member's Contributions	Percentage of compensation earnable based on entry age.	Fixed, flat-rate percentage of pensionable compensation.
10.	Cost-of-Living	"Automatic" not to exceed 2% compounding COLA.	"Automatic" not to exceed 2% compounding COLA.
		A non-compounding 7% increase is payable at retirement for members hired on or before August 18, 1975.	
11.	Current Year Changes in Plan Provisions	None	None

(1) Payments are made payable to an eligible spouse, registered domestic partner and/or eligible minor children.

(2) Payments are made payment to an engine sponte, registered dontede particular and/or function engine made in (2) Payment may be adjusted depending on the payment option selected at time of retirement. Note: A more detailed description of the Plan provisions is available upon request from the SBCERA administrative office.



Analysis of Financial Experience For the Years Ended June 30, 2008 through 2017 (Amounts in Thousands)

The following are the gains and losses in accrued liabilities during the years ended June 30, 2008 through 2017 resulting from the differences between assumed experience and actual experience.

		_			
Year Ended	Pay Increases ¹	Investment Income ²	Death After Retirement ³	Other ⁴	Composite Gain/(Loss) During the Year
6/30/2008 Gain/(Loss)	\$ (21,844)	\$ 7,386	\$ (22,150)	\$ (4,795)	\$ (41,403)
6/30/2009 Gain/(Loss)	50,853	(323,361)	(8,506)	66,311	(214,703)
6/30/2010 Gain/(Loss)	111,010	(529,630)	(17,399)	(12,666)	(448,685)
6/30/2011 Gain/(Loss)	86,082	(394,003)	(6,413)	(6,804)	(321,138)
6/30/2012 Gain/(Loss)	119,172	(132,274)	(12,372)	(96,438)	(121,912)
6/30/2013 Gain/(Loss)	159,490	(138,466)	5,019	(105,908)	(79,865)
6/30/2014 Gain/(Loss)	227,699	(35,160)	8,550	(291,340)	(90,251)
6/30/2015 Gain/(Loss)	(19,400)	(72,831)	14,950	18,580	(58,701)
6/30/2016 Gain/(Loss)	135,705	(143,031)	(10,824)	(5,849)	(23,999)
6/30/2017 Gain/(Loss)	15,781	781	(9,835)	(665,842)	(659,115)

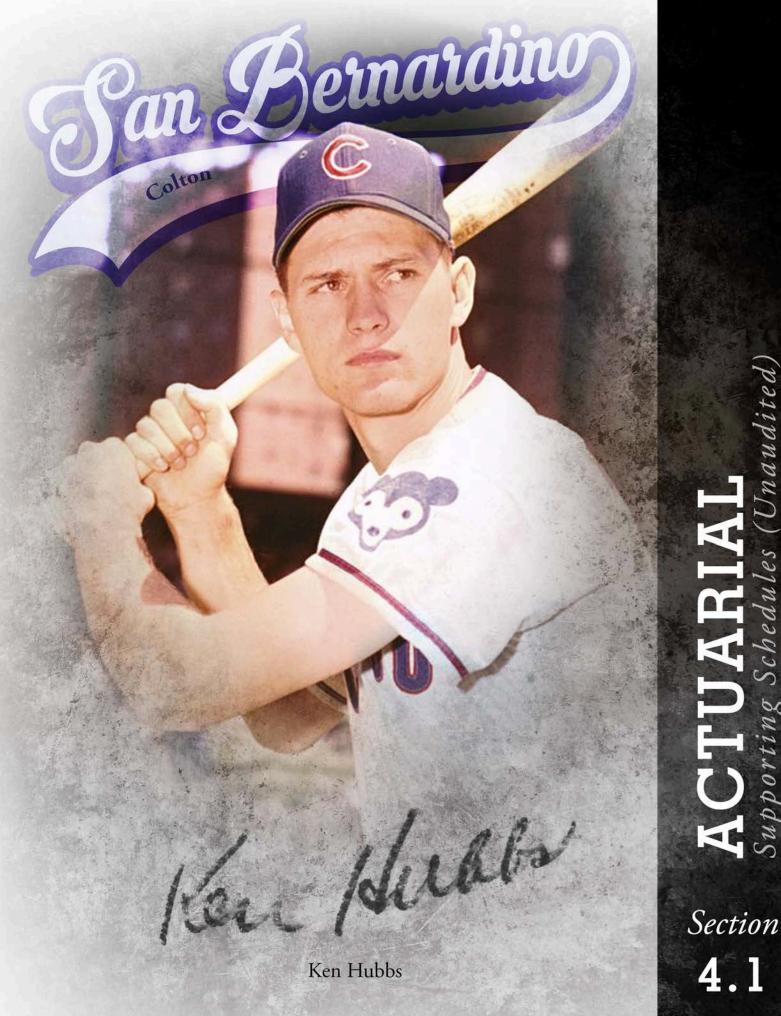
(1) If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.

(2) If there is greater investment income than assumed, there is a gain. If less income, a loss.

(3) If retirees live longer than assumed, there is a loss. If not as long, a gain.

(4) Includes actual contributions less than expected, retiree subsidy reserve transfer, miscellaneous gains and losses resulting primarily from employee turnover, retirement incidence and data variances, and actuarial assumption changes.

Note: The June 30, 2008 and June 30, 2013 actuarial valuations, prepared by SBCERA's independent actuary, Segal Consulting, were audited by another independent actuary, Miliman, and were found to be complete, accurate, and prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions, and supporting Recommendations of the American Academy of Actuaries.



Unaudited Schedules ACTU Supporting

Section 4.1

Supporting Schedules (Unaudited)

Ken Hubbs

Ken Hubbs

A graduate of Colton High School, Ken Hubbs was the 1962 National League Rookie of the Year and was projected to have a lengthy career for his team¹, the Chicago Cubs. Yet, his life was tragically cut short by a plane crash. Hubbs was one of the most beloved players in the league. Following the news of Hubbs' untimely death, Chicago Mayor Richard Daley wrote, "There isn't a man in Chicago who wouldn't have been proud to have him as a son."² Ken Hubbs is remembered in Major League Baseball history for his kindness and generosity, and for accomplishments that most athletes could only dream about.

Moneyball:

Before the Cubs won the 2016 World Series, their last championship was in 1908. During the series, fans expressed outrage over ticket scalping, which was a major problem at the time. This led to an estimated attendance loss of 15,000 fans and a \$25,000 revenue loss for the Cubs.³

(1) www.Baseball-Reference.com.
 (2) (2014, February 13). "Fifty years later, memories of Ken Hubbs still glowing." FoxSports.com.
 (3) Yellon, Al. (2016, October 28). "The 1908 World Series." Al Yellon. BleedCubbieBlue.com.

Ratio of Current Compensation-to-Compensation Anticipated at Retirement As of June 30, 2017

Age	General Members	Safety Members
20	0.4328	0.4379
25	0.5878	0.5808
30	0.6618	0.6538
35	0.7059	0.6992
40	0.7419	0.7421
45	0.7798	0.7878
50	0.8195	0.8362
55	0.8613	0.8876
60	0.9053	0.9421
65	0.9515	1.0000
70	1.0000	

Note: Merit and promotional only (excludes inflation). Assumes age at entry is 20.

Ratios provided by SBCERA's independent actuary, Segal Consulting. Refer to Segal's letter in the Actuarial section, for further information.

Probabilities of Separation from Active Service As of June 30, 2017

The following page indicates the probability of separation from active service for each of the following sources of termination:

Withdrawal:	Member terminates and either elects refund of member contributions or contributions are left on deposit.
Death:	Member dies prior to retirement.
Disability:	Member receives a disability retirement. Non-service connected (ordinary) disability is when a disability is not employment-related. Service connected (duty) disability is when a disability is employment-related.

Service Retirement: Member retires after satisfaction of requirements of age and/or service for reasons other than disability.

Probabilities of Separation from Active Service

As of June 30, 2017 (Continued)

The probabilities shown for each cause of termination represent the likelihood that a given member will terminate at a particular age for the indicated reason. For example, if the probability of death for a male General member at age 30 is 0.0005, then the assumption is that 0.05% of the active General male members at age 30 will die during the next year.

U	0 ,		Tier 1 Service	Tier 2 Service
Age	Death ¹	Disability ²	Retirement	Retirement
General Mem	bers – Male			
20	0.0005	0.0002	0.0000	0.0000
30	0.0005	0.0003	0.0000	0.0000
40	0.0007	0.0008	0.0000	0.0000
50	0.0019	0.0027	0.0250	0.0000
60	0.0051	0.0058	0.1500	0.0900
70	0.0143	0.0124	0.2500	0.4000
General Mem				
20	0.0002	0.0002	0.0000	0.0000
30	0.0002	0.0003	0.0000	0.0000
40	0.0004	0.0008	0.0000	0.0000
50	0.0012	0.0027	0.0250	0.0000
60	0.0027	0.0058	0.1500	0.0900
70	0.0066	0.0124	0.2500	0.4000
Safety Membe	ers – Male			
20	0.0005	0.0020	0.0000	0.0000
30	0.0005	0.0031	0.0000	0.0000
40	0.0007	0.0054	0.0000	0.0000
50	0.0019	0.0213	0.1000	0.0400
60	0.0051	0.0760	0.2500	0.2500
70	0.0143	0.0000	1.0000	1.0000
Safety Membe				
20	0.0002	0.0020	0.0000	0.0000
30	0.0002	0.0031	0.0000	0.0000
40	0.0004	0.0054	0.0000	0.0000
50	0.0012	0.0213	0.1000	0.0400
60	0.0027	0.0760	0.2500	0.2500
70	0.0066	0.0000	1.0000	1.0000

The withdrawal rates below apply based on years of service. No withdrawal is assumed after a member is first assumed to retire.

Years of Service	General Members	Safety Members
Less than 1	0.1500	0.0500
1	0.1100	0.0450
5	0.0525	0.0200
10	0.0400	0.0125
15	0.0350	0.0100
20 or More	0.0300	0.0100

Below is the probability of electing a refund of member contributions upon withdrawal.

1 2	General	Members	Safety 1	Members
- Years of Service	Elected Refundable Contributions	Elected Non-Refundable Contributions ³	Elected Refundable Contributions	Elected Non-Refundable Contributions ³
Less than 5	1.0000	1.0000	1.0000	1.0000
5	0.4000	0.2000	0.2500	0.1250
10	0.4000	0.2000	0.2500	0.1250
15	0.4000	0.2000	0.1500	0.0750
20 or More	0.2000	0.1000	0.0000	0.0000

All pre-retirement deaths are assumed to be non-service connected. Note that generational projections beyond the base year (2014) are not reflected in the above mortality rates.
 50% of General member disabilities are assumed to be service connected (duty) disabilities and the other 50% are assumed to be non-service connected (ordinary) disabilities.

(3) Assumes member made both refundable and non-refundable contributions during the course of employment. Only the portion attributable to the refundable contributions may be withdrawn.

Note: Ratios provided by SBCERA's independent actuary, Segal Consulting. Refer to Segal's letter in the Actuarial section, for further information.

Expectation of Life As of June 30, 2017 (Amounts in Years)

General Service Retirees¹

Age	Male ²	Female
50	32.56	36.67
60	23.57	27.25
70	15.49	18.40
80	8.68	10.78
	Safety Service Retirees ¹	
Age	Male ³	Female ³
50	34.37	37.57
60	25.28	28.15
70	17.02	19.22
80	9.87	11.44
	General Disabled Retirees ¹	
Age	Male ⁴	Female ⁴
20	54.25	58.13
30	45.32	48.94
40	45.52 36.38	39.69
	27.18	
50		30.17
60	18.55	21.01
70	11.23	13.03 6.70
80	5.63	0.70
	Safety Disabled Retirees ¹	
Age	Male ³	Female ³
20	60.70	64.77
30	52.03	55.83
40	43.42	46.87
50	34.37	37.57
60	25.28	28.15
70	17.02	19.22
80	9.87	11.44

The expectation of life was determined by SBCERA's independent actuary, Segal Consulting, using the RP-2014 Healthy Annuitant Mortality Tables, projected generationally with the two-dimensional MP-2016 projection scale, for the above ages as of 2017.
 The table is set forward one year.

(3) The table is set forward one year.(4) The table is set forward seven years.

History of Total Employer Contribution Rates For Actuarial Valuation Years Ended June 30, 2008 through 2017

Valuation Date -	6/30/2008	Valuation Date -	6/30/2009	Valuation Date -	6/30/2010	Valuation Date -	6/30/2011
County General		County General		County General		County General	
Normal Cost	9.29%	Normal Cost	9.25%	Normal Cost	9.27%	Normal Cost	9.41%
UAAL	1.96%	UAAL	_3.07%	UAAL	5.23%	UAAL	_7.71%
Total	11.25%	Total	12.32%	Total	14.50%	Total	17.12%
County Safety		County Safety		County Safety		County Safety	
Normal Cost	19.06%	Normal Cost	19.21%	Normal Cost	19.16%	Normal Cost	19.24%
UAAL	5.40%	UAAL	7.61%	UAAL	11.73%	UAAL	17.15%
Total	24.46%	Total	26.82%	Total	30.89%	Total	36.39%
SCAQMD		SCAQMD		SCAQMD		SCAQMD	
Normal Cost	9.66%	Normal Cost	9.72%	Normal Cost	9.72%	Normal Cost	9.98%
UAAL	5.52%	UAAL	6.36%	UAAL	9.61%	UAAL	13.17%
Total	15.18%	Total	16.08%	Total	19.33%	Total	23.15%
Superior Court		Superior Court		Superior Court		Superior Court	
Normal Cost	9.29%	Normal Cost	9.25%	Normal Cost	9.27%	Normal Cost	9.41%
UAAL	5.55%	UAAL	6.29%	UAAL	7.61%	UAAL	9.15%
Total	14.84%	Total	15.54%	Total	16.88%	Total	18.56%
Other General		Other General		Other General		Other General	
Normal Cost	10.61%	Normal Cost	10.58%	Normal Cost	10.57%	Normal Cost	10.66%
UAAL	8.81%	UAAL	9.81%	UAAL	<u>11.81%</u>	UAAL	<u>15.11%</u>
Total	19.42%	Total	20.39%	Total	22.38%	Total	25.77%
Other Safety		Other Safety		Other Safety		Other Safety	-
Normal Cost	19.97%	Normal Cost	20.22%	Normal Cost	20.24%	Normal Cost	20.35%
UAAL	21.01%	UAAL	24.48%	UAAL	26.67%	UAAL	<u>31.38%</u>
Total	40.98%	Total	44.70%	Total	46.91%	Total	51.73%

Note: See Note on page 141, for further information.

History of Total Employer Contribution Rates For Actuarial Valuation Years Ended June 30, 2008 through 2017

(Continued)

	Valuation Date -	6/30/2012	Valuation Date - 6/	30/2013	Valuation Date - 6	/30/2014	Valuation Date -	6/30/2015
ł	County General		County General-Tier	r 1	County General-Tie	r 1	County General-T	ier 1
	Normal Cost UAAL Total	9.94% <u>9.02%</u> 18.96%	Normal Cost UAAL Total	10.10% <u>10.14%</u> 20.24%	Normal Cost UAAL Total	11.50% <u>10.99%</u> 22.49%	Normal Cost UAAL Total	11.50% <u>10.83%</u> 22.33%
	County Safety		County General-Tier	r 2	County General-Tie	r 2	County General-T	ier 2
	Normal Cost UAAL Total	19.73% <u>20.26%</u> 39.99%	Normal Cost UAAL Total	7.88% <u>10.14%</u> 18.02%	Normal Cost UAAL Total	8.40% <u>10.99%</u> 19.39%	Normal Cost UAAL Total	8.37% <u>10.83%</u> 19.20%
	SCAQMD		County Safety-Tier	l	County Safety-Tier	l	County Safety-Tier	r 1
	Normal Cost UAAL Total	9.87% <u>15.35%</u> 25.22%	Normal Cost UAAL Total	19.88% 23.27% 43.15%	Normal Cost UAAL Total	22.06% 27.03% 49.09%	Normal Cost UAAL Total	22.10% 28.88% 50.98%
	Superior Court		County Safety-Tier 2	2	County Safety-Tier 2	2	County Safety-Tier	r 2
	Normal Cost UAAL Total	9.94% <u>9.93%</u> 19.87%	Normal Cost UAAL Total	13.75% <u>23.27%</u> 37.02%	Normal Cost UAAL Total	15.22% <u>27.03%</u> 42.25%	Normal Cost UAAL Total	14.03% <u>28.88%</u> 42.91%
	Other General		SCAQMD-Tier 1		SCAQMD-Tier 1		SCAQMD-Tier 1	
	Normal Cost UAAL Total	11.37% <u>16.32%</u> 27.69%	Normal Cost UAAL Total	10.23% <u>17.53%</u> 27.76%	Normal Cost UAAL Total	11.73% <u>18.46%</u> 30.19%	Normal Cost UAAL Total	11.69% <u>21.24%</u> 32.93%
	Other Safety	2/.0//0	SCAQMD-Tier 2	2/./0/0	SCAQMD-Tier 2	JU.1 //0	SCAQMD-Tier 2	52.7570
	Normal Cost UAAL Total	19.59% <u>38.23%</u> 57.82%	Normal Cost UAAL Total	7.83% <u>17.53%</u> 25.36%	Normal Cost UAAL Total	7.97% <u>18.46%</u> 26.43%	Normal Cost UAAL Total	7.66% <u>21.24%</u> 28.90%
		27.00-70	Superior Court-Tier		Superior Court-Tier		Superior Court-Tie	
			Normal Cost UAAL Total	10.10% <u>11.65%</u> 21.75%	Normal Cost UAAL Total	11.50% 12.39% 23.89%	Normal Cost UAAL Total	11.50% <u>12.40%</u> 23.90%
			Superior Court-Tier	2	Superior Court-Tier	2	Superior Court-Ti	er 2
			Normal Cost UAAL Total	7.88% <u>11.65%</u> 19.53%	Normal Cost UAAL Total	8.40% <u>12.39%</u> 20.79%	Normal Cost UAAL Total	8.37% <u>12.40%</u> 20.77%
			Other General-Tier	L	Other General-Tier	1	Other General-Tie	er 1
			Normal Cost UAAL Total	11.67% <u>18.24%</u> 29.91%	Normal Cost UAAL Total	12.83% 20.48% 33.31%	Normal Cost UAAL Total	12.88% 20.17% 33.05%
			Other General-Tier	2	Other General-Tier	2	Other General-Tie	er 2
			Normal Cost UAAL Total	7.20% <u>18.24%</u> 25.44%	Normal Cost UAAL Total	9.29% 20.48% 29.77%	Normal Cost UAAL Total	9.33% <u>20.17%</u> 29.50%
			Other Safety-Tier 1		Other Safety-Tier 1		Other Safety-Tier	
			Normal Cost UAAL Total	20.48% <u>39.17%</u> 59.65%	Normal Cost UAAL Total	23.22% <u>45.79%</u> 69.01%	Normal Cost UAAL Total	22.35% <u>49.96%</u> 72.31%
			Other Safety-Tier 2	JJ J 10	Other Safety-Tier 2	0,.01,0	Other Safety-Tier	
			Normal Cost UAAL Total	11.56% <u>39.17%</u> 50.73%	Normal Cost UAAL Total	12.82% 45.79% 58.61%	Normal Cost UAAL Total	13.21% 49.96% 63.17%

Note: See Note on page 141, for further information.

History of Total Employer Contribution Rates For Actuarial Valuation Years Ended June 30, 2008 through 2017

(Continued)

Valuation Date - 6/30/	/2016	Valuation Date - 0	6/30/2017
County General-Tier 1		County General-Ti	er 1
Normal Cost UAAL Total	11.50% 10.91% 22.41%	Normal Cost UAAL Total	11.70% 13.57% 25.27%
County General-Tier 2		County General-Ti	er 2
Normal Cost UAAL Total	8.45% <u>10.91%</u> 19.36%	Normal Cost UAAL Total	9.16% <u>13.57%</u> 22.73%
County Safety-Tier 1		County Safety-Tier	1
Normal Cost UAAL Total	22.14% 28.06% 50.20%	Normal Cost UAAL Total	21.81% 33.76% 55.57%
County Safety-Tier 2	90.2070	County Safety-Tier	
Normal Cost UAAL Total	15.15% <u>28.06%</u> 43.21%	Normal Cost UAAL Total	16.54% 33.76% 50.30%
SCAQMD-Tier 1		SCAQMD-Tier 1	
Normal Cost UAAL Total	11.68% 23.25% 34.93%	Normal Cost UAAL Total	11.84% 28.50% 40.34%
SCAQMD-Tier 2		SCAQMD-Tier 2	
Normal Cost UAAL Total	7.66% <u>23.25%</u> 30.91%	Normal Cost UAAL Total	8.39% 28.50% 36.89%
Superior Court-Tier 1		Superior Court-Tie	er 1
Normal Cost UAAL Total	11.50% <u>13.20%</u> 24.70%	Normal Cost UAAL Total	11.70% 16.47% 28.17%
Superior Court-Tier 2		Superior Court-Tie	er 2
Normal Cost UAAL Total	8.45% <u>13.20%</u> 21.65%	Normal Cost UAAL Total	9.16% 16.47% 25.63%
Other General-Tier 1		Other General-Tier	r 1
Normal Cost UAAL Total	13.18% 21.35% 34.53%	Normal Cost UAAL Total	11.78% 25.25% 37.03%
Other General-Tier 2		Other General-Tier	r 2
Normal Cost UAAL Total	8.74% <u>21.35%</u> 30.09%	Normal Cost UAAL Total	9.05% 25.25% 34.30%
Other Safety-Tier 1 Normal Cost UAAL Total	22.52% 60.67% 83.19%		
Other Safety-Tier 2			
Normal Cost UAAL Total	13.06% 60.67% 73.73%		

Note: These are the recommended rates and include a 2 year lag, i.e., contribution rates recommended in the actuarial valuation dated June 30, 2017, go into effect for the year ending June 30, 2019. For June 30, 2010, contribution rates were revised based on a \$40.6 million transfer from the General Subsidy Reserve to the Current Service Reserve on April 7, 2011. For June 30, 2011 and 2012, contribution rates reflect a three-year phase-in, which was approved by the Board on August 15, 2011. Beginning June 30, 2013, Tier 2 rates added pursuant to PEPRA. For June 30, 2017, the members in the Other Safety cost group transferred to the County Safety cost group.

Retirees and Beneficiaries Added to and Removed from Rolls

For the Years Ended June 30, 2008 through 2017 For General and Safety Members (Dollars in Thousands)

E		Add to R			Remo rom I		R	et Ad Remo om F			Rolls- d of Year	% - Increase	P	verage Annual owances
Year Ended	No.		Annual owances ¹	No.		nnual owances	No.		Annual lowances	No.	Annual Allowances	in Annual Allowances	(Actual Dollars)
6/30/2008														,
General	518	\$	19,912	218	\$	3,781	300	\$	16,131	6,739	\$ 170,479	10.45%	\$	25,297
Safety	74		5,964	20	,	461	54	,	5,503	1,232	57,153	10.65%	,	46,390
TOTAL	592	\$		238	\$	4,242	354	\$	21,634	7,971	\$ 227,632	10.50%	\$	28,558
6/30/2009														
General	689	\$	27,963	181	\$	3,187	508	\$	24,776	7,247	\$ 195,255	14.53%	\$	26,943
Safety	59		4,367	19		394	40		3,973	1,272	61,126	6.95%		48,055
TOTAL	748	\$	32,330	200	\$	3,581	548	\$	28,749	8,519	\$ 256,381	12.63%	\$	30,095
6/30/2010														
General	465	\$	19,648	205	\$	4,123	260	\$	15,525	7,507	\$ 210,780	7.95%	\$	28,078
Safety	88		7,732	24		806	64		6,926	1,336	68,052	11.33%		50,937
TOTAL	553	\$	27,380	229	\$	4,929	324	\$	22,451	8,843	\$ 278,832	8.76%	\$	31,531
6/30/2011														
General	598	\$	25,397	250	\$	4,605	348	\$	20,792	7,855	\$ 231,572	9.86%	\$	29,481
Safety	96		9,702	22		770	74		8,932	1,410	76,984	13.13%		54,599
TOTAL	694	\$	35,099	272	\$	5,375	422	\$	29,724	9,265	\$ 308,556	10.66%	\$	33,303
6/30/2012														
General	586	\$	26,342	204	\$	3,741	382	\$	22,601	8,237	\$ 254,173	9.76%	\$	30,857
Safety	104		9,234	15		568	89		8,666	1,499	85,650	11.26%		57,138
TOTAL 6/30/2013	690	\$	35,576	219	\$	4,309	471	\$	31,267	9,736	\$ 339,823	10.13%	\$	34,904
General	638	\$	28,585	283	\$	6,470	355	\$	22,115	8,592	\$ 276,288	8.70%	\$	32,156
Safety	117		10,266	35		1,440	82		8,826	1,581	94,476	10.30%		59,757
TOTAL 6/30/2014	755	\$	38,851	318	\$	7,910	437	\$	30,941	10,173	\$ 370,764	9.11%	\$	36,446
General	620	\$	26,034	286	\$	6,575	334	\$	19,459	8,926	\$ 295,747	7.04%	\$	33,133
Safety	136		9,220	25		832	111		8,388	1,692	102,864	8.88%		60,794
TOTAL 6/30/2015	756	\$	35,254	311	\$	7,407	445	\$	27,847	10,618	\$ 398,611	7.51%	\$	37,541
General	632	\$	28,114	259	\$	5,744	373	\$	22,370	9,299	\$ 318,117	7.56%	\$	34,210
Safety	164		11,338	27		1,312	137		10,026	1,829	112,890	9.75%		61,722
TOTAL	796	\$	39,452	286	\$	7,056	510	\$	32,396	11,128	\$ 431,007	8.13%	\$	38,732
6/30/2016														
General	681	\$	31,597	269	\$	6,759	412	\$	24,838	9,711	\$ 342,955	7.81%	\$	35,316
Safety	122	Ŧ	10,665	32	Ŧ	1,637	90	Ŧ	9,028	1,919	121,918	8.00%	Ŧ	63,532
TOTAL	803	\$	42,262	301	\$	8,396	502	\$	33,866	11,630	\$ 464,873	7.86%	\$	39,972
6/30/2017														
General	740	\$	-	289	\$	7,774	451	\$	30,251	10,162	\$ 373,206	8.82%	\$	36,726
Safety	129		11,774	31		1,436	98		10,338	2,017	132,256	8.48%		65,571
TOTAL	869	\$	49,799	320	\$	9,210	549	\$	40,589	12,179	\$ 505,462	8.73%	\$	41,503

(1) Includes automatic cost-of-living adjustments granted annually on April 1.

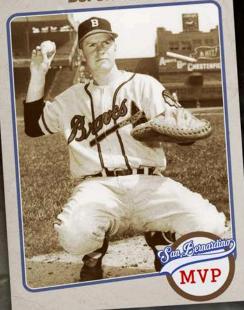


STATISTICA (Unaudited)

Section 5.0

Section 5.0 STATISTICAL (Unaudited)

Del Crandall



Home of the Brave

The youngest catcher to ever start in the majors, Del Crandall was named to the All-Star team 11 times during his illustrious career, and won a World Series with the 1957 Milwaukee Braves.¹ Born in Ontario, Crandall would later go on to coach the minor league team San Bernardino Stampede during the 1990s, when they were the California League affiliate for the Dodgers.² Crandall enjoyed a lengthy career in the majors, playing for 16 seasons, though he would have tallied even more years had he not paused his playing career for two seasons to serve during the Korean War.

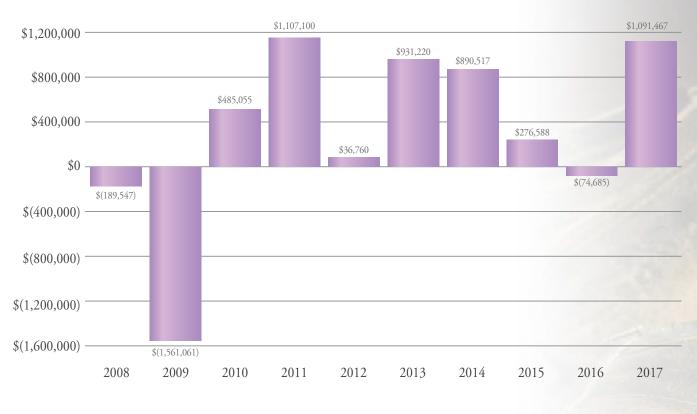
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Moneyball:

During World War II, many players, including Ted Williams and Joe DiMaggio, gave up prime years of their career to proudly serve in the military. As soon as the war ended, baseball skyrocketed in popularity, and revenues generated from radio and television broadcasting quadrupled over the next five years.³

Wolf, Gregory H. (2014, July 1). "Del Crandall." Society for American Baseball Research.
 www.Baseball-Reference.com.
 Obermeyer, Jeff. Baseball and the Bottom Line in World War II: Gunning for Profits on the Home Front. 2013. Page 191.

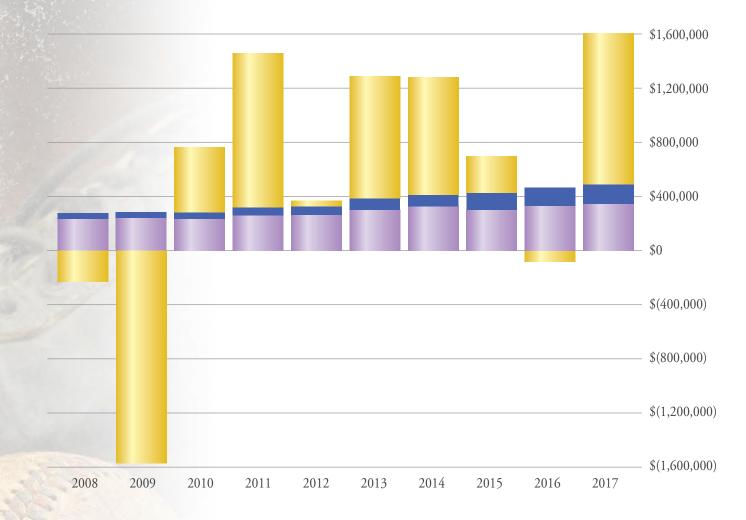
Statistical Changes in Fiduciary Net Position For the Years Ended June 30, 2008 through 2017 (Amounts in Thousands)



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Additions										
Employer contributions	\$ 241,721	\$ 246,232 \$	243,773	\$ 258,128	\$ 278,091	\$ 303,080	\$ 330,330	\$ 303,244	\$ 340,512	\$ 360,478
Member contributions	49,481	49,550	56,986	59,612	68,630	91,056	89,861	129,895	139,132	143,858
Investment income/(loss) ¹	(226,541)	(1,583,833)	486,433	1,117,138	39,786	912,310	877,018	280,842	(80,028)	1,098,198
TOTAL ADDITIONS	64,661	(1,288,051)	787,192	1,434,878	386,507	1,306,446	1,297,209	713,981	399,616	1,602,534
Deductions										
Benefits and refunds	244,406	262,779	292,677	320,514	341,728	367,396	397,823	428,475	464,068	497,904
Administrative expenses	8,861	8,939	7,226	5,599	6,205	6,258	6,386	6,710	7,569	9,961
Other expenses	941	1,292	2,234	1,665	1,814	1,572	2,483	2,208	2,664	3,202
TOTAL DEDUCTIONS	254,208	273,010	302,137	327,778	349,747	375,226	406,692	437,393	474,301	511,067
TOTAL CHANGE IN FIDUCIARY										
NET POSITION	\$ (189,547)	\$ (1,561,061) \$	485,055	\$ 1,107,100	\$ 36,760	\$ 931,220	\$ 890,517	\$ 276,588	\$ (74,685)	\$ 1,091,467

(1) Net of investment expenses and includes net securities lending income (\$415 thousand for the year ended June 30, 2017).

Additions by Source For the Years Ended June 30, 2008 through 2017 (Amounts in Thousands)

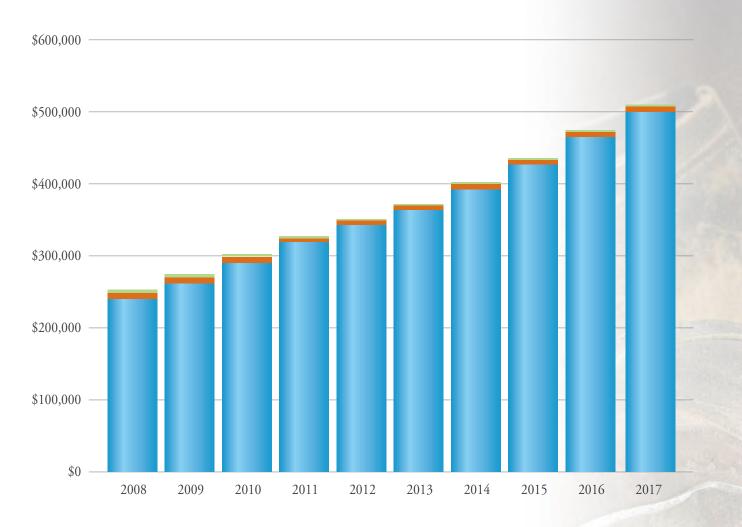


Additions	2008	2009	2010	2011	2012	2	2013	2	2014	2015	2016	2	2017
Employer contributions	\$ 241,721	\$ 246,232	\$ 243,773	\$ 258,128	\$ 278,091	\$	303,080	\$	330,330	\$ 303,244	\$ 340,512	\$	360,478
Member contributions	49,481	49,550	56,986	59,612	68,630		91,056		89,861	129,895	139,132		143,858
% of annual payroll (employer) ¹	21.93%	20.19%	19.88%	20.65%	22.34%		24.05%		26.16%	23.92%	26.01%		26.77%
Investment income/(loss) ²	(226,541)	(1,583,833)	486,433	1,117,138	39,786		912,310		877,018	280,842	(80,028)	1,	,098,198
TOTAL ADDITIONS	\$ 64,661	\$ (1,288,051)	\$ 787,192	\$ 1,434,878	\$ 386,507	\$1,	306,446	\$ 1,	297,209	\$ 713,981	\$ 399,616	\$ 1,	602,534

(1) The annual payroll used for the year ended June 30, 2017 is \$1.35 billion.

(2) Net of investment expenses and includes net securities lending income (\$415 thousand for the year ended June 30, 2017).

Deductions by Type For the Years Ended June 30, 2008 through 2017 (Amounts in Thousands)



Deductions	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Benefits and refunds	\$ 244,406	\$ 262,779	\$ 292,677	\$ 320,514	\$ 341,728	\$ 367,396	\$ 397,823	\$ 428,475	\$ 464,068	\$ 497,904
Administrative expenses	8,861	8,939	7,226	5,599	6,205	6,258	6,386	6,710	7,569	9,961
Other expenses	941	1,292	2,234	1,665	1,814	1,572	2,483	2,208	2,664	3,202
TOTAL DEDUCTIONS	\$ 254,208	\$ 273,010	\$ 302,137	\$ 327,778	\$ 349,747	\$ 375,226	\$ 406,692	\$ 437,393	\$ 474,301	\$ 511,067

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Benefit Expenses by Type For the Years Ended June 30, 2008 through 2017 (Amounts in Thousands)

Type of Benefit Expense	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Age & Service Benefits										
Retirees	\$ 170,711	\$ 190,105	\$ 217,241	\$ 238,775	\$ 256,160	\$ 276,360	\$ 300,482	\$ 327,541	\$ 354,650	\$ 384,184
Survivors	9,031	9,452	10,396	11,427	12,259	13,230	14,293	15,314	16,817	18,428
Death in service benefits	367	332	313	388	341	315	424	247	590	421
Disability Benefits										
Duty	37,188	3 37,473	39,858	42,230	44,080	47,137	50,325	52,722	55,037	58,519
Non-duty	8,063	8 8,125	8,642	9,156	9,557	10,220	10,911	11,431	11,933	12,688
Survivor	6,462	6,512	6,926	7,613	7,947	8,576	9,265	9,927	10,902	11,946
TOTAL BENEFIT										
PAYMENTS	231,822	251,999	283,376	309,589	330,344	355,838	385,700	417,182	449,929	486,186
Refunds										
Death	408	538	1,462	925	717	826	1,016	1,106	1,678	1,563
Separation	12,176	5 10,242	7,839	10,000	10,667	10,732	11,107	10,187	12,461	10,155
TOTAL REFUNDS	12,584	i 10,780	9,301	10,925	11,384	11,558	12,123	11,293	14,139	11,718
TOTAL BENEFIT AND REFUND PAYMENTS	\$ 244,406	5 \$ 262,779	\$ 292,677	\$ 320,514	\$ 341,728	\$ 367,396	\$ 397,823	\$ 428,475	\$ 464,068	\$ 497,904

Retired Members by Type of Benefit As of June 30, 2017

	Number _	Туре	of Retirem	lent ¹		Number _	Туре	of Retirem	ent ¹
Amount of Monthly Benefit ²	of Retirees	Α	В	С	Amount of Monthly Benefit ²	of Retirees	A	В	С
General Members					Safety Members				
\$0 - \$999	1,893	1,279	98	516	\$0 - \$999	113	35	18	60
\$1,000 - \$1,999	2,692	1,956	323	413	\$1,000 - \$1,999	207	50	54	103
\$2,000 - \$2,999	1,887	1,429	251	207	\$2,000 - \$2,999	247	74	115	58
\$3,000 - \$3,999	1,164	997	88	79	\$3,000 - \$3,999	387	74	268	45
\$4,000 - \$4,999	777	707	34	36	\$4,000 - \$4,999	182	82	66	34
\$5,000 - \$5,999	509	477	16	16	\$5,000 - \$5,999	150	98	41	11
\$6,000 - \$6,999	355	347	1	7	\$6,000 - \$6,999	156	107	39	10
\$7,000 - \$7,999	277	267	2	8	\$7,000 - \$7,999	132	99	24	9
\$8,000 - \$8,999	195	191	3	1	\$8,000 - \$8,999	107	81	24	2
\$9,000 - \$9,999	120	116	3	1	\$9,000 - \$9,999	95	65	28	2
Over \$10,000	293	288	1	4	Over \$10,000	241	164	73	4
TOTAL	10,162	8,054	820	1,288	TOTAL	2,017	929	750	338

	Number	Туре	of Retirem	nent ¹
	of Retirees	A	В	С
GRAND TOTAL	12,179	8,983	1,570	1,626

(1) Type of Retirement: A = Service Retirement; B = Disability Retirement; C = Beneficiary.

(2) Excludes monthly benefits for Supplemental Disability, Survivor Benefit and Burial Allowance.

Note: Refer to the Actuarial section, Summary of Major Plan Provisions, for further information. Detail above provided by SBCERA's independent actuary, Segal Consulting, Segal reviewed SBCERA's participant data for reasonableness. Refer to Segal's letter in the Actuarial section, for further information.

Participating Employers For the Years Ended June 30, 2008 through 2017

	2017		20)16	20	15	2014		
Participating Employer	Number of Members			% of Total	Number of Members	% of Total	Number of Members	% of Total	
Barstow Fire Protection District	20	0.09%	18	0.09%	28	0.14%	27	0.14%	
California Electronic Recording Transaction Network Authority	2	0.01%	2	0.01%	2	0.01%	1	0.01%	
California State Association of Counties	100	0.47%	94	0.46%	94	0.47%	83	0.43%	
City of Big Bear Lake	67	0.32%	67	0.33%	65	0.33%	66	0.34%	
City of Chino Hills	153	0.72%	153	0.74%	152	0.76%	148	0.76%	
County of San Bernardino	18,797	89.05%	18,319	89.19%	17,718	88.87%	17,341	88.93%	
Crest Forest Fire Protection District	-	0.00%	-	0.00%	-	0.00%	-	0.00%	
Crestline Sanitation District	19	0.09%	19	0.09%	20	0.10%	19	0.10%	
Department of Water and Power of the City of Big Bear Lake	31	0.15%	31	0.15%	32	0.16%	32	0.16%	
Hesperia Recreation and Park District	24	0.11%	40	0.19%	49	0.24%	44	0.23%	
Inland Library System	1	0.01%	1	0.01%	1	0.01%	1	0.01%	
Inland Valley Development Agency	-	0.00%	-	0.00%	-	0.00%	-	0.00%	
Law Library for San Bernardino County	6	0.03%	8	0.04%	8	0.04%	8	0.04%	
Local Agency Formation Commission	5	0.02%	5	0.02%	5	0.02%	5	0.03%	
Mojave Desert Air Quality Management District	39	0.18%	39	0.19%	41	0.21%	41	0.21%	
Rim of the World Recreation & Park District	-	0.00%	-	0.00%	-	0.00%	-	0.00%	
San Bernardino County Transportation Authority	60	0.28%	55	0.27%	50	0.25%	45	0.23%	
San Bernardino County Employees' Retirement Association (SBCERA)	64	0.30%	55	0.27%	48	0.24%	50	0.26%	
San Bernardino International Airport Authority	-	0.00%	-	0.00%	-	0.00%	-	0.00%	
South Coast Air Quality Management District	702	3.33%	682	3.32%	695	3.49%	697	3.57%	
Superior Court of California County of San Bernardino	1,020	4.84%	950	4.63%	930	4.66%	889	4.55%	
TOTAL MEMBERS	21,110	100.00%	20,538	100.00%	19,938	100.00%	19,497	100.00%	

Note: See Note on page 151, for further information.

Participating Employers For the Years Ended June 30, 2008 through 2017

(Continued)

20	13	2012		20	11	20	010	20	09	20	08
Number of Members	% of Total										
20	0.10%	20	0.10%	21	0.11%	23	0.12%	23	0.12%	21	0.11%
1	0.01%	1	0.01%	1	0.01%	1	0.01%	1	0.01%	-	0.00%
94	0.47%	105	0.54%	108	0.56%	118	0.60%	125	0.66%	124	0.64%
71	0.37%	77	0.40%	83	0.43%	116	0.59%	119	0.63%	120	0.62%
161	0.83%	168	0.87%	168	0.87%	172	0.88%	172	0.91%	178	0.92%
17,230	88.81%	16,963	87.87%	16,882	87.66%	17,142	87.81%	16,563	87.38%	17,038	87.75%
-	0.00%	29	0.15%	26	0.13%	27	0.14%	27	0.14%	31	0.16%
18	0.09%	20	0.10%	20	0.10%	-	0.00%	-	0.00%	-	0.00%
33	0.17%	33	0.17%	-	0.00%	-	0.00%	-	0.00%	-	0.00%
18	0.09%	18	0.09%	17	0.09%	19	0.10%	17	0.09%	16	0.08%
1	0.01%	1	0.01%	1	0.01%	2	0.01%	2	0.01%	2	0.01%
-	0.00%	-	0.00%	8	0.04%	14	0.07%	18	0.09%	18	0.09%
8	0.04%	8	0.04%	8	0.04%	8	0.04%	9	0.05%	9	0.05%
4	0.02%	4	0.02%	4	0.02%	5	0.03%	6	0.03%	6	0.03%
42	0.22%	38	0.20%	38	0.20%	37	0.19%	35	0.18%	37	0.19%
-	0.00%	1	0.01%	1	0.01%	2	0.01%	2	0.01%	3	0.02%
48	0.25%	41	0.21%	39	0.20%	38	0.19%	38	0.20%	38	0.20%
47	0.24%	48	0.25%	42	0.22%	20	0.10%	13	0.07%	12	0.06%
-	0.00%	-	0.00%	6	0.03%	15	0.08%	17	0.09%	15	0.08%
713	3.68%	740	3.83%	767	3.98%	780	4.00%	796	4.20%	766	3.94%
892	4.60%	991	5.13%	1,018	5.29%	981	5.03%	972	5.13%	980	5.05%
19,401	100.00%	19,306	100.00%	19,258	100.00%	19,520	100.00%	18,955	100.00%	19,414	100.00%

Note: For the year ended June 30, 2017: On June 24, 2017 the San Bernardino Associated Governments members transitioned to the San Bernardino County Transporation Authority as if no change of employer had occurred. For the year ended June 30, 2013: On May 4, 2013 Rim of the World Recreation and Park District withdrew from SBCERA. On July 13, 2013 Crest Forest Fire Protection District transferred all members to the County of San Bernardino. For actuarial purposes the transfer of the associated accrued liabilities occurred as of June 30, 2013. For the year ended June 30, 2012: The Department of Water and Power of the City of Big Bear Lake (DWP) previously reported under the City of Big Bear Lake. On July 2, 2011, DWP requested to be treated as a separate employer. In addition, the Inland Valley Development Agency and the San Bernardino International Airport Authority withdrew from SBCERA on June 30, 2012. For the year ended June 30, 2011: Crestline Sanitation District (CSD) previously reported under the County of San Bernardino. On October 7, 2010 CSD requested to be treated as a separate employer. For the year ended June 30, 2009: California Electronic Recording Transaction Network Authority became a new public entity, created under a Joint Powers Agreement, and joined SBCERA on August 7, 2008. For the year ended June 30, 2009: SBCERA adopted Government Code sections 31468(1)(2) and 31522.5, making SBCERA its own district. SBCERA previously reported under the County of San Bernardino.

Average Benefit Payments Retirement Effective Dates July 1, 2007 to June 30, 2017

						Se	ervic	e Years C	redi	ted				
	0-5	5		5-10		10-15		15-20		20-25		25-30		30+
Period 7/1/07 to 6/30/08														
Average Monthly Benefit	\$ 1,2	07	\$	1,590	\$	1,682	\$	2,957	\$	3,735	\$	5,390	\$	7,139
Monthly Final Average Comp. ¹	\$ 2,5	22	\$	4,248	\$	3,970	\$	5,582	\$	5,624	\$	6,650	\$	7,109
Number of Active Retirees		4		31		53		86		72		60		77
Period 7/1/08 to 6/30/09														
Average Monthly Benefit	\$ 7	87	\$	1,453	\$	1,818	\$	2,806	\$	3,666	\$	4,767	\$	6,134
Monthly Final Average Comp. ¹	\$ 3,3	70	\$	4,418	\$	4,861	\$	5,125	\$	5,666	\$	5,941	\$	6,558
Number of Active Retirees		4		58		85		99		119		66		127
Period 7/1/09 to 6/30/10														
Average Monthly Benefit	\$ 1,2	29	\$	1,656	\$	1,929	\$	3,269	\$	4,878	\$	6,328	\$	8,936
Monthly Final Average Comp. ¹	\$ 4,2	72	\$	3,535	\$	4,491	\$	6,114	\$	7,324	\$	7,772	\$	9,275
Number of Active Retirees		8		30		49		57		68		42		81
Period 7/1/10 to 6/30/11														
Average Monthly Benefit	\$ 1,3	99	\$	1,887	\$	1,989	\$	3,694	\$	4,588	\$	6,638	\$	8,449
Monthly Final Average Comp. ¹	\$ 5,9		\$	4,182	\$	4,757	\$	6,600	\$	6,759	\$	8,134	\$	8,801
Number of Active Retirees		10		27		90		67		86		64		88
Period 7/1/11 to 6/30/12														
Average Monthly Benefit	\$ 8	32	\$	1,821	\$	2,085	\$	2,786	\$	4,506	\$	5,282	\$	8,395
Monthly Final Average Comp. ¹	\$ 4,4		\$	5,084	\$	4,805	\$	5,092	\$	6,901	\$	6,906	\$	9,021
Number of Active Retirees	1	3		45	,	96	,	57	,	107	,	70	,	97
Period 7/1/12 to 6/30/13								2,						
Average Monthly Benefit	\$ 2,6	96	\$	1,871	\$	2,006	\$	3,405	\$	4,119	\$	6,005	\$	8,223
Monthly Final Average Comp. ¹	\$ 9,8		\$	4,645	\$	5,369	\$	6,426	\$	6,479	\$	7,969	\$	8,771
Number of Active Retirees	1 27-	6		45	,	112	,	72	,	92		92		93
Period 7/1/13 to 6/30/14				-										
Average Monthly Benefit	\$ 1,5	68	\$	1,836	\$	2,124	\$	2,724	\$	4,137	\$	5,714	\$	6,549
Monthly Final Average Comp. ¹	\$ 3,9		\$	5,148	\$	5,402	\$	5,274	\$	6,343	\$	7,216	\$	6,878
Number of Active Retirees	1 0 / 2	2		24	,	129	,	77	,	117	,	90	,	92
Period 7/1/14 to 6/30/15								, ,		,				
Average Monthly Benefit	\$ 1,1	11	\$	1,713	\$	1,983	\$	2,804	\$	4,521	\$	5,708	\$	7,713
Monthly Final Average Comp. ¹	\$ 5,3		\$	5,293	\$	5,112	\$	5,527	\$	6,685	\$	6,837	\$	7,473
Number of Active Retirees	¢ 9,0	4	Ŷ	46	Ŷ	92	Ŷ	81	Ŷ	96	Ŷ	110	Ŷ	114
Period 7/1/15 to 6/30/16		-								,				
Average Monthly Benefit	\$ 3	50	\$	1,669	\$	2,215	\$	2,913	\$	3,886	\$	5,576	\$	7,764
Monthly Final Average Comp. ¹	\$ 7,6		\$	4,803	\$	5,795	\$	5,456	\$	5,657	\$	6,613	\$	8,041
Number of Active Retirees	¢ 7,0	1	Ŷ	54	Ŷ	80	Ŷ	97	Ŷ	91	Ŷ	104	Ŷ	107
Period 7/1/16 to 6/30/17		-		1				71		/1		101		10/
Average Monthly Benefit	\$ 5	74	\$	2,042	\$	2,239	\$	3,306	\$	4,470	\$	6,253	\$	7,770
Monthly Final Average Comp. ¹	\$ 3,2		\$	5,955	\$	5,187	\$	6,294	φ \$	6,493	\$	7,224	\$	7,793
Number of Active Retirees	Ψ 5,2	3	Ψ	63	Ψ	103	Ψ	90	Ψ	86	Ψ	107	Ψ	145
Total Retirees		5		05		105)0		00		10/		11)
Average Monthly Benefit	\$ 7	75	\$	1,480	\$	1,896	\$	2,712	\$	3,767	\$	5,574	\$	7,893
Monthly Final Average Comp. ¹	\$ 5,0		φ \$	4,584	چ \$	4,747	φ \$	5,073	\$	5,490	پ \$	6,535	پ \$	7,422
Number of Active Retirees		16	Ψ	1,316	Ψ	2,206	ψ	1,711	Ψ	1,632	ψ	1,399	ψ	1,773
1) Comp Componentien)	10		1,910		2,200		1,/11		1,052		1,577		1,//)

(1) Comp. = Compensation Note: Detail above provided by SBCERA's independent actuary, Segal Consulting. Segal reviewed SBCERA's participant data for reasonableness. Refer to Segal's letter in the Actuarial section, for further information.





Information (Unaudited STATISTICA] Membership

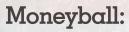
Section 5.1

Section 5.1 STATISTICAL Membership Information (Unaudited)

Troy Percival



Troy Percival was known for his strength and resilience on the mound – qualities fitting of his roots in the Inland Empire. Born in Fontana, Percival attended high school in Moreno Valley and played in college at the University of California (UC) Riverside before going on to an illustrious career with the Anaheim Angels.¹ An instrumental figure in the Angels 2002 World Series victory, Percival played on four All-Star teams and earned a place in baseball's esteemed "300 save club" for his 358 games saved as a closing pitcher.² During his career, Percival was known as one of the game's best pitchers. Today, he is the head coach of the UC Riverside baseball team.



According to Forbes, the Los Angeles Angels of Anaheim were valued at \$1.34 billion as of March 2016, placing the team's net worth at #8 in Major League Baseball.³

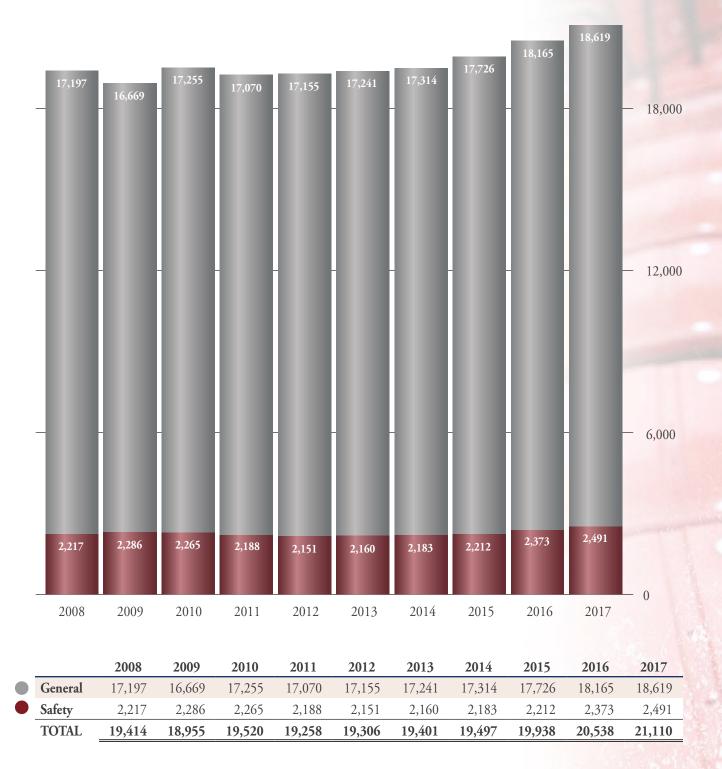
(1) www.Baseball-Reference.com.
 (2) Ibid.

n Bemaid

(3) "The Most Valuable MLB Teams 2016." Forbes.com.

Active Membership Classification For the Years Ended June 30, 2008 through 2017

24,000

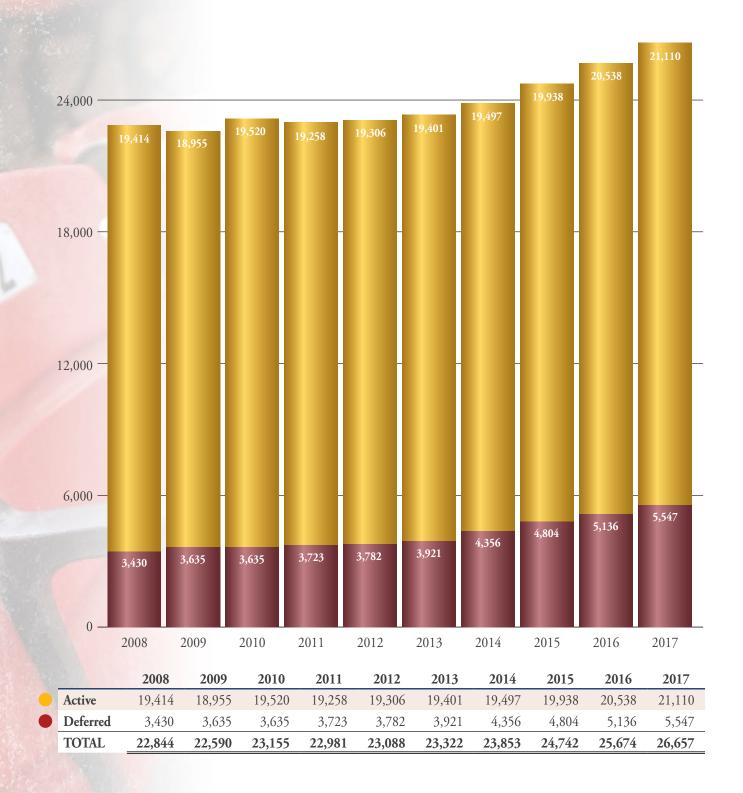


Note: Membership is presented for active members only.

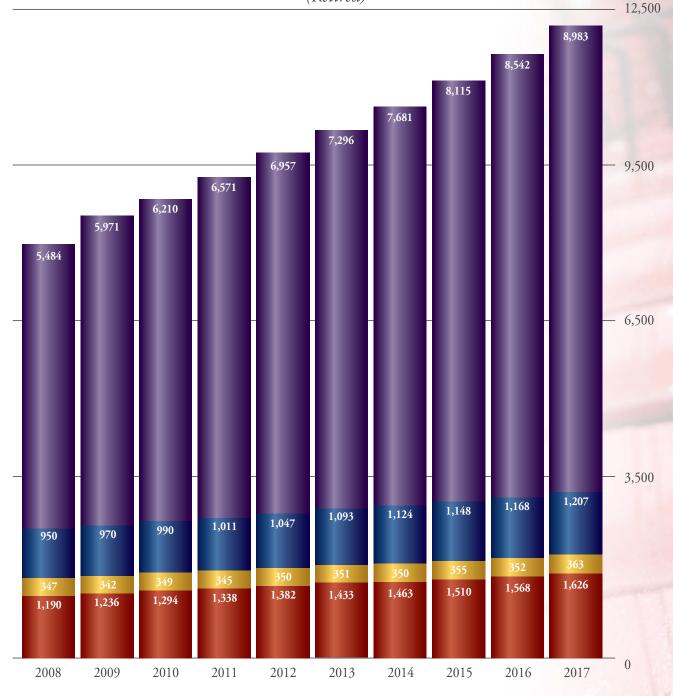
Membership History For the Years Ended June 30, 2008 through 2017

(Active and Deferred)

30,000



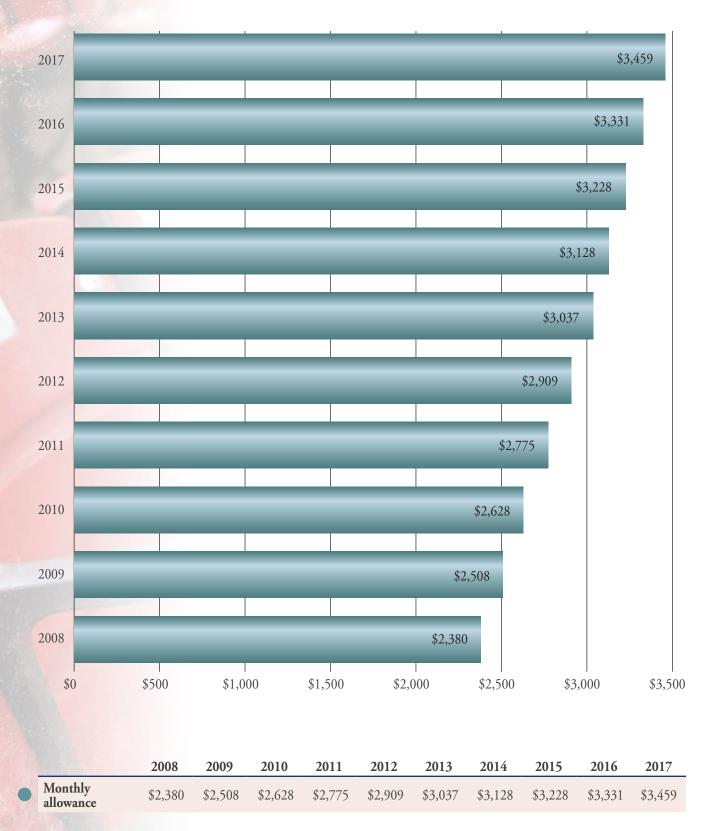
Membership History For the Years Ended June 30, 2008 through 2017 (Retired)



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Service retirement	5,484	5,971	6,210	6,571	6,957	7,296	7,681	8,115	8,542	8,983
Service connected disability	950	970	990	1,011	1,047	1,093	1,124	1,148	1,168	1,207
Non-service connected disability	347	342	349	345	350	351	350	355	352	363
Survivors	1,190	1,236	1,294	1,338	1,382	1,433	1,463	1,510	1,568	1,626
TOTAL	7,971	8,519	8,843	9,265	9,736	10,173	10,618	11,128	11,630	12,179

Note: Detail above provided by SBCERA's independent actuary, Segal Consulting. Segal reviewed SBCERA's participant data for reasonableness. Refer to Segal's letter in the Actuarial section, for further information.

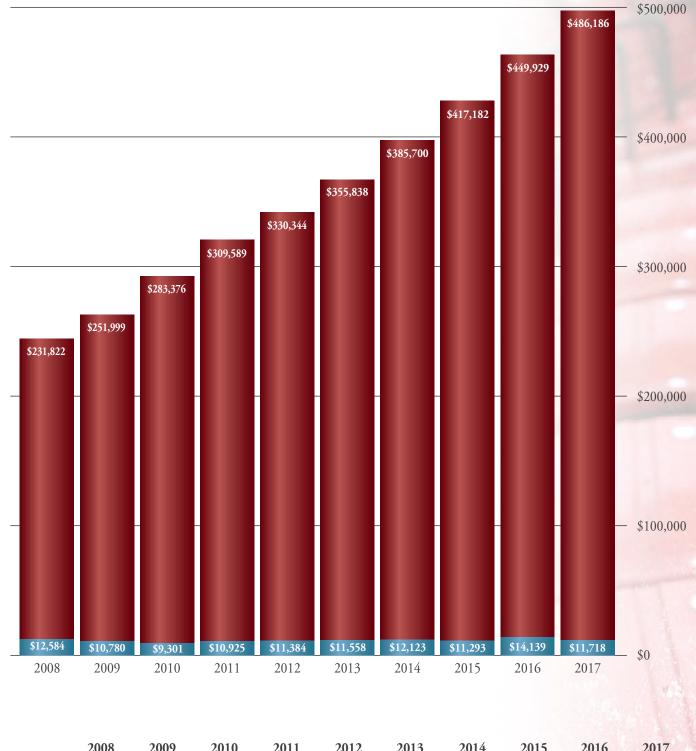
Average Monthly Retirement Benefits For the Years Ended June 30, 2008 through 2017



Note: Detail above provided by SBCERA's independent actuary, Segal Consulting. Segal reviewed SBCERA's participant data for reasonableness. Refer to Segal's letter in the Actuarial section, for further information.

Benefits and Refunds Paid

For the Years Ended June 30, 2008 through 2017 (Amounts in Thousands)



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Benefits	\$231,822	\$251,999	\$283,376	\$309,589	\$330,344	\$355,838	\$385,700	\$417,182	\$449,929	\$486,186
Refunds	12,584	10,780	9,301	10,925	11,384	11,558	12,123	11,293	14,139	11,718
TOTAL	\$244,406	\$262,779	\$292,677	\$320,514	\$341,728	\$367,396	\$397,823	\$428,475	\$464,068	\$497,904





Comprehensive Annual Financial Report

For the Years Ended June 30, 2017 and 2016 A Multiple-Employer Pension Trust Fund | San Bernardino, California

