SB cera
San Bernardino
County Employees' Retirement Association

# JOURNEY
## TO THE TOP

# 2018
## Comprehensive Annual Financial Report

***A Multiple-Employer Pension Trust Fund | San Bernardino, California***

*For the Years Ended June 30, 2018 and 2017*

# JOURNEY TO THE TOP

# 2018
# Comprehensive Annual Financial Report

*A Multiple-Employer Pension Trust Fund*
*San Bernardino, California*

*For the Years Ended June 30, 2018 and 2017*

Debby Cherney
*Chief Executive Officer*

Amy McInerny, CPA
*Chief Financial Officer*

SBcera
San Bernardino
County Employees' Retirement Association

348 West Hospitality Lane, Third Floor | San Bernardino, CA 92415-0014
**p. 909.885.7980 | f. 909.885.7446 | www.SBCERA.org**

# JOURNEY
## TO THE TOP

At San Bernardino County Employees' Retirement Association (SBCERA), we frequently highlight the stability that comes with retirement from our Plan. Certainly, retirement is a much more predictable and consistent season of life with the promise of a lifetime monthly benefit.

However, in highlighting this fact, we often miss another important characteristic of retirement – the exciting journey to the top.

This new season allows retirees to reflect on life's travails and fully appreciate opportunities ahead. After a long career of hard work, consistent contributions to retirement accounts, and lots of planning and preparation, arriving at retirement is an impressive height. Yet from there, plenty of recreation and personal growth exists for each member as they seek to reach their individual summit.

Retirement can be full of promising rewards – new adventures, time to develop stronger relationships with family and friends, and the confidence that comes from achievement.

In this report, we spotlight some of the many journeys members can take right here in San Bernardino County. The region is full of renowned hiking trails and spectacular scenery, whether it be in a lush field, a desert canyon, or atop a mountain. Retirees may wish to explore some of these sites in their newfound free time. Just as adventure seekers must bring essential resources for hiking, the report also showcases some of the many services and resources that SBCERA provides members for a successful and sustainable retirement.

At SBCERA, we provide retirement stability so our members can wander, enjoy the views, and embark on new quests. To all of our members – retired and those still working – we wish you an awe-inspiring journey to the top.

# Table of Contents

# Table of Contents

*(Continued)*

# Table of Contents

*(Continued)*

## Section 5.0 – Statistical *(Unaudited)*

# 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

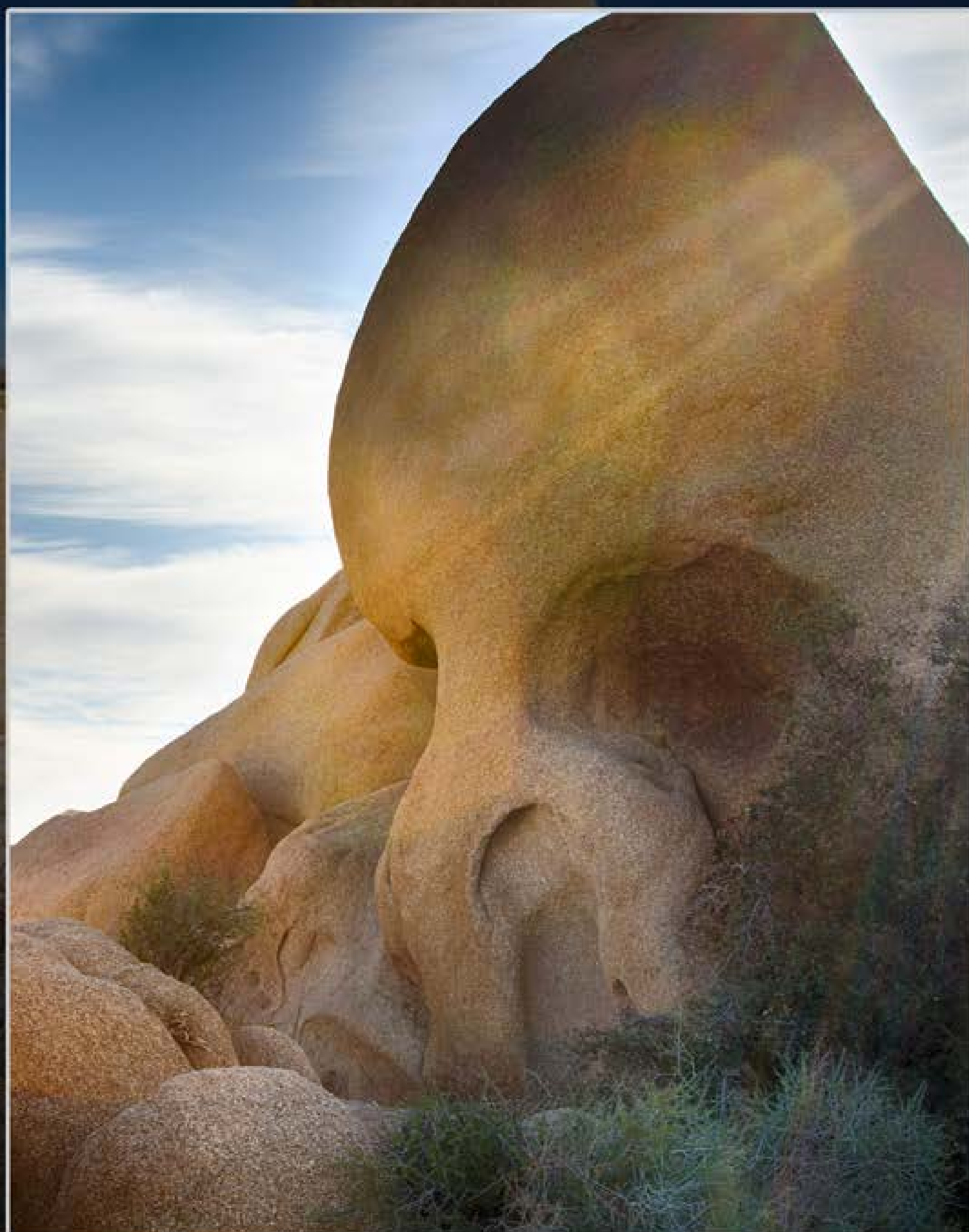
(f) strategically plan for the future.

section

1.0

# INTRODUCTORY

*(Unaudited)*



## Skull Rock Nature Trail

*Joshua Tree National Forest*

*(Elevation Gain: 157 feet)*

# Section 1.0

## INTRODUCTORY

*(Unaudited)*

## Skull Rock Nature Trail

*(Joshua Tree National Forest)*

Located where San Bernardino and Riverside Counties meet, Joshua Tree National Park is a global destination. The park attracts over 2 million visitors annually from all parts of the world and is known for its unique combination of two ecosystems (separated by high and low desert).

Among a wide variety of wildlife, flora and geological wonders surrounding famous fault lines, one of the biggest attractions is Skull Rock Trail. The trail is great for hiking, rock climbing or taking a pleasant nature walk.

At SBCERA, Active Members and Deferred Members with past membership in another California public retirement system may be able to combine service credit and membership in retirement systems. This process, known as reciprocity, allows members to preserve benefits earned in both retirement plans.

Sources:

https://www.alltrails.com/trail/us/california/skull-rock-nature-trail
https://www.nps.gov/jotr/

SBcera San Bernardino County Employees' Retirement Association

# Letter of Transmittal

*San Bernardino County Employees' Retirement Association*

November 27, 2018

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 pride that we present the San Bernardino County Employees' Retirement Association (SBCERA) Comprehensive Annual Financial Report (CAFR) for the years ended June 30, 2018 and 2017. This report is created annually to provide a detailed overview of the SBCERA Plan (the Plan) and its trust Fund's financial, actuarial, and investment-related activities for the year.

This year's CAFR, "Journey to the Top," pays homage to the hard work, persistence, and personal growth our members display on their way to retirement. It also celebrates the opportunities for adventure that await them in their new season of life. Much like hiking, the journey to retirement is a steady climb that requires planning, wise management of resources, and personal determination. Yet, once at the top, members can more easily partake in the joys of retirement thanks to the predictability and consistency offered through an SBCERA defined benefit. Whether it be more time with loved ones, traveling, or the prospects of an active lifestyle, the achievement of retirement marks merely the beginning of a fulfilling experience ahead.

Throughout the CAFR divider pages, we highlight some of the many visual wonders and recreational activities that members can enjoy right here in San Bernardino County. Our region boasts some of the very best trails and vistas, and much like the equipment needed for a gratifying hike, the divider pages reference the resources that SBCERA provides to all members and their beneficiaries.

Within the report, the investment performance and organizational achievements of the past fiscal year not only exceeded our internal goals, but also those of external stakeholders, as we were recognized with numerous recognitions and awards.

Established in 1945, SBCERA celebrates its 73rd 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, and death and survivor benefits for over 40,000 members, serves 18 active participating employers, and manages approximately $10 billion in assets. A listing of participating employers, as of June 30, 2018, can be found on page 145.

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 17, which provides a narrative introduction, overview, and analysis of our financial operations for the years ended June 30, 2018 and 2017.

As you read the 2018 CAFR, we trust you – the members and participating employers of SBCERA – will appreciate the detailed work of staff in developing the report and find the content helpful in understanding SBCERA's defined benefit Plan.

## *Major Initiatives*

### Admission of New Plan Sponsor

On June 7, 2018, the Board of Retirement adopted a resolution to approve the admission of the Big Bear Fire Authority (BBFA) effective June 23, 2018 as SBCERA's newest Plan sponsor. Representing the consolidation of specific employees with the City of Big Bear Lake (an existing SBCERA Plan sponsor) and the Big Bear City Community Services District (a CalPERS agency) into the existing agency of BBFA, the action capped several years of prior planning, legislative efforts, coordination, and careful progress. We are pleased to welcome BBFA employees into SBCERA membership, and enjoyed the chance to provide onboarding assistance through several member presentations.

### Employer Outreach

A major focus of the fiscal year was enhancing our outreach to participating employers. Embracing transparency and improving the quality and frequency of our communication to employers were pillars of our outreach efforts. As such, we published the first two issues of *Employer News*, our online employer newsletter that spotlights our vision and values, and informs about the technical matters of pension administration. Our outreach included working on conversations with employers about modernizing our policies and practices, and finding ways to deliver high levels of service with greater efficiency.

### Member Education

SBCERA continued to leverage technology to promote member education. Aiming to provide enhanced convenience and reach members where they are, the staff created and published a series of animated videos, webinars, and other digital content. These efforts were in addition to the robust schedule of in-person presentations conducted throughout the region to members of various participating employers.

## *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.

SBCERA recognizes even sound internal controls have inherent limitations. SBCERA's internal controls are designed to provide reasonable, but not absolute, assurance that SBCERA's operating policies and procedures are sufficient to safeguard SBCERA's assets. 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, the actuarial firm also conducts an experience study and makes recommendations to the Board on all economic and non-economic assumptions, which was last completed for the year ended June 30, 2016. Segal completed the annual valuation for the year ended June 30, 2018 and presented it to the Board.

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 employer contributions. Generally, employer contributions are relatively stable, on a percentage basis, based on Plan 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, 2018 and June 30, 2017 amounts to $10.7 billion and $10.2 billion, respectively. The actuarial value of assets increased from $9.39 billion at June 30, 2017, to $10.02 billion at June 30, 2018. The funding ratio, on an actuarial value basis, increased to 79.50% at June 30, 2018, from the previous fiscal year's 78.69%. 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 115).

As prescribed by *GASB Statement No. 67, Financial Reporting for Pension Plans, an Amendment of GASB Statement No. 25*, the total pension liability of participating employers is not reported in the 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 Plan 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. SBCERA's *Investment Plan, Policy and Guidelines* establish the investment program goals, asset allocation, policies, performance objectives, investment management policies, and risk controls.

For the year ended June 30, 2018, investments provided a rate of return (net of fees) of 8.67%. The Plan's annualized rate of return (net of fees) over the three-year period ended June 30, 2018 was 6.91%.

On a fair value basis, the total pension Plan net position available for benefits increased from $9.29 billion to $10.07 billion. Details of the components of this increase are included in the Statements of Changes in Fiduciary Net Position on page 30 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 11 of this report.

## 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, 2017. This was the 21st 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.

# Letter of Transmittal

*(Continued)*

SBCERA also received a Popular Annual Financial Reporting Award from the GFOA for its Popular Annual Financial Report (PAFR) for the year ended June 30, 2017, which is a short summary version of the CAFR.

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, 2018. This is the third consecutive year that SBCERA has applied for and 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 coalition 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*

As recent appointees to our respective positions at SBCERA, we express our sincere appreciation to the Board for bestowing their confidence in us. SBCERA has a rich history and is one of the strongest public Plans in California. We are proud to inherit the responsibility of administering such a successful Plan, yet we also realize the importance of efficiently managing our resources and responsibly funding the Plan over time. This is a challenge that we take seriously, and will work toward with great diligence.

The successful and timely completion of the 2018 CAFR would not be possible without the teamwork of SBCERA's incredible staff and professional providers, along with the support and leadership of the Board.

To our Plan Sponsors and members, thank you for placing your trust in SBCERA. We are fully aware of our duty to you, and we will strive for continual improvement in our service and transparent communication. Our efforts are never ceasing, but we hope that in your individual careers, you can all enjoy the journey to the top.

Very truly yours,

| | |
|---|---|
| Debby Cherney | Amy McInerny, CPA |
| *Chief Executive Officer* | *Chief Financial Officer* |

# Certificate of Achievement for Excellence in Financial Reporting

*San Bernardino County Employees' Retirement Association*

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

**San Bernardino County**

**Employees' Retirement Association**

**California**

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

**June 30, 2017**

Christopher P. Morrill

Executive Director/CEO

Public Pension Coordinating Council

## *Public Pension Standards Award For Funding and Administration 2018*

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 H. Winkle
Alan H. Winkle
Program Administrator

# Members of the Board of Retirement

*As of June 30, 2018*

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

Janice Rutherford
Board Vice Chair
Administrative Committee[1]
***Appointed by Board of Supervisors***

Brendan Brandt
Audit Committee[1]
Administrative Committee
***Appointed by Board of Supervisors***

Anthony J. DeCecio
Administrative Committee
***Elected by Safety Members***

Sean Flynn
***Appointed by Board of Supervisors***

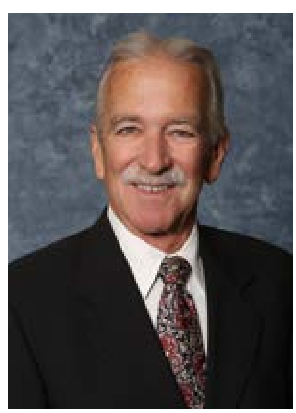
Dawn Stafford
Investment Committee
***Elected by Retired Members***

Oscar Valdez
Investment Committee
***County Treasurer/Ex-Officio Member***

Neal Waner
Investment Committee[1]
***Appointed by Board of Supervisors***

Vere Williams
Audit Committee
Administrative Committee
***Elected by General Members***

John Johnson
Investment Committee (Alternate)
***Alternate: Ex-Officio Member***



John Michaelson
Audit Committee
***Alternate: Elected by Retired Members***

Jared Newcomer
Investment Committee
***Alternate: Elected by Safety Members***

(1) Denotes Committee Chair.

# Key Members of the Administrative Staff

**Debby Cherney**
*Chief Executive Officer*

**Barbara Hannah**
*Chief Counsel*

**Donald Pierce**
*Chief Investment Officer*

**Amy McInerny**
*Chief Financial Officer*

**Joseph Michael**
*Chief Information Officer*

**Vacant**
*Chief Operating Officer*

# Outside Consultants

*As of June 30, 2018*

## Actuary

**Segal Consulting**
*Consulting Actuary*

**Cheiron**
*Actuarial Auditors*

## Custodial Services

**State Street Bank and Trust Company**
*Sacramento, CA*

## Independent Auditors

**Macias Gini & O'Connell LLP**
*Financial Statement Auditors*

## Investment Consultants

**NEPC, LLC**
*Investment Advisor*

**Kreischer Miller**
*Compliance Advisor*

**Maples Finance**
*LLC Administrator*

## Legal Counsel

**Liebert Cassidy Whitmore**
*General Advisory Counsel*

**Nossaman, LLP**
*General Advisory Counsel*

**Foley & Lardner**
*Investment Counsel*

**Hirschler Fleischer, APC**
*Investment Counsel*

**Squire Patton Boggs, LLP**
*Investment Counsel*

**Arias & Lockwood, APLC**
*Litigation & Disability Counsel*

**Hanson Bridgett, LLP**
*Tax & Trust Counsel*

**Public Pension Consultants**
*Trust Counsel*

Note: Investment professionals are listed on page 103, and a schedule of manager fees is located on page 111 of this report, in the Investments section.

# Report from the Board Chair

*San Bernardino County Employees' Retirement Association*

November 27, 2018

*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, 2018 Comprehensive Annual Financial Report (CAFR). In this year's CAFR "Journey to the Top," along with award-winning statistics and data about the SBCERA fund, we are exploring some of San Bernardino County's magnificent hiking trails and outdoor adventures.

The SBCERA Fund has been on a continuous journey to the top, with fiscal year 2018 reaching our highest recorded market value in SBCERA's history. Our assets totaled $10.2 billion, an increase of $766.5 million from a year ago, and a net investment gain of $797.5 million for the year. That is an average net investment increase of over $199.4 million every three months. A remarkable achievement!

In August 2018, we welcomed SBCERA's new CEO, Debby Cherney. After a very thorough search and evaluation, the SBCERA Board of Retirement unanimously chose Ms. Cherney. She came to us from the Eastern Municipal Water District (EMWD). At EMWD, she was the Deputy General Manager, overseeing approximately 200 employees and was responsible for all administrative services including finance, information systems, human resources, customer service, purchasing and contract management, safety and risk management. Additionally, Ms. Cherney is on the Executive Board of the Government Finance Officers Association of the U.S. and Canada where she also served as the Chair of their advisory Committee on Retirement and Benefits Administration. Debby is now leading our journey to the top.

In keeping with the theme "Journey to the Top," we elevated Barbara Hannah to the position of Chief Counsel. Barbara is a 13 year employee of SBCERA who began her career here as a paralegal. Barbara obtained her law degree while working for SBCERA full time. After passing the California Bar exam, SBCERA hired Barbara as Staff attorney, then promoted her to Senior Staff Counsel prior to the Board appointing her as Chief Counsel in September 2018. Barbara has shown consistent dedication to the mission of SBCERA and we are a better organization with her in the lead of our Legal Department's journey.

I am grateful for all of the dedicated and experienced guides we have, both in SBCERA staff and my colleagues on the Board. As Chair of the Board, I rely heavily on the retirement trail knowledge and the governing of pension terrain expertise within these groups. Even as we have reached these peaks this fiscal year, our journey to the top will continue.

Sincerely,

Louis Fiorino

Louis Fiorino, Board Chair
*SBCERA Board of Retirement*

section

2.0

# FINANCIAL

## Rainbow Basin

*Barstow, California*

*(Elevation Gain: 239 feet)*

# Section 2.0
## FINANCIAL

## Rainbow Basin
*(Barstow, California)*

The Rainbow Basin Natural Area in Barstow, California is great for hikers, horseback riders, and paleontologists (yes, there are fossils nearby).

Among the natural hiking trails is the Rainbow Basin Slot Canyon, which features truly interesting rock formations. Some athletic skill is required to traverse over rocks and down into the canyon. Water is also necessary for sustenance, as temperatures can easily reach triple digits.

For Retired Members and beneficiaries, SBCERA also provides "water," or more specifically, COLAs, to sustain benefits and not let them be overtaken by inflation. The up to two percent annual cost-of-living adjustment means that members can maintain relative purchasing power in retirement.

Sources:
http://www.vvdailypress.com/news/20160314/five-must-hike-trails-in-high-desert
https://www.alltrails.com/trail/us/california/rainbow-basin-slot-canyon

# 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, 2018 and 2017, 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, 2018 and 2017, 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
700 South Flower St., Suite 800
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, 2018 and 2017 was $2.53 billion and $2.64 billion, respectively. The Plan fiduciary net position as a percentage of the total pension liability as of June 30, 2018 and 2017 was 79.89% and 77.90%, respectively. The actuarial valuations used to measure the total pension liability are very sensitive to the underlying assumptions, including discount rates of 7.25% as of June 30, 2018 and 2017, 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 and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

*Other Information*

Our 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 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, 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.

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 Gini & O'Connell LLP

Los Angeles, California
November 27, 2018

# Management's Discussion and Analysis

*(Unaudited)*
*June 30, 2018 and 2017*

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, 2018 and 2017. Readers are encouraged to consider the information presented in this analysis in conjunction with the financial statements as presented in this report.

## *Financial Highlights*

- The net position – restricted for pensions of SBCERA as of June 30, 2018 and 2017 was $10.07 billion and $9.29 billion, respectively. All of the net position is available to meet SBCERA's ongoing obligations to Plan members (member[s]) and their beneficiaries.
- SBCERA's total net position – restricted for pensions increased by $778.55 million or 8.38% and increased by $1.09 billion or 13.32% for the years ended June 30, 2018 and 2017, respectively. The increases in 2018 and 2017 are primarily a result of positive investment returns.
- Total additions, as reflected in the Statements of Changes in Fiduciary Net Position, for the years ended June 30, 2018 and 2017 are $1.33 billion and $1.60 billion, respectively. This includes employer and member contributions of $528.15 million, a transfer from an outside plan of $4.31 million, net investment income of $797.24 million, and net securities lending income of $238 thousand for the year ended June 30, 2018. For the year ended June 30, 2017, it includes employer and member contributions of $504.34 million, net investment income of $1.10 billion, and net securities lending income of $415 thousand.
- Total deductions as reflected in the Statements of Changes in Fiduciary Net Position are $551.39 million for the year ended June 30, 2018, an increase of $40.32 million over the year ended June 30, 2017, or approximately 7.89%. Total deductions for the year ended June 30, 2017 were $511.07 million, an increase of $36.77 million over the year ended June 30, 2016, or approximately 7.75%.
- The net pension liability of participating employers as of June 30, 2018 and 2017 are $2.53 billion and $2.64 billion, respectively. The Plan fiduciary net position as a percentage of the total pension liability is 79.89% and 77.90% as of June 30, 2018 and 2017, respectively. The net pension liability as a percentage of covered payroll is 180.14% and 195.74% as of June 30, 2018 and 2017, respectively. Refer to Note 4 – Net Pension Liability of Participating Employers, and Required Supplementary Information sections of this report, for further information.

## *Overview of the Financial Statements*

The following discussion and analysis is 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. 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. 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.

# Management's Discussion and Analysis

*(Unaudited)*
*June 30, 2018 and 2017*
*(Continued)*

## *Overview of the Financial Statements* *(Continued)*

**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 ten years. Refer to the Required Supplementary Information section of this report.

**Other Supplementary Information** includes 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 the following page, for further information. As of June 30, 2018, SBCERA had $10.07 billion in net position, which means total assets of $10.23 billion exceed total liabilities of $162.54 million. As of June 30, 2017 and 2016, SBCERA had $9.29 billion and $8.20 billion in net position, respectively, as a result of total assets of $9.46 billion and $8.40 billion exceeding total liabilities of $174.63 million and $199.09 million, respectively. All of the net position is available to meet SBCERA's ongoing obligation to members and their beneficiaries.

As of June 30, 2018, net position increased by $778.55 million, accounting for an 8.38% increase from the prior year. As of June 30, 2017, net position increased by $1.09 billion, for a 13.32% increase from the prior year. The increases for 2018 and 2017 are primarily due to gains from net investment activity.

## *Financial Analysis - Net Position* *(Continued)*

### Fiduciary Net Position (Table 1)
*As of June 30, 2018, 2017 and 2016*
*(Amounts in Thousands)*

| | (a) 2018 | (b) 2017 | (c) 2016 | (a-b=d) Amount Increase/ (Decrease) | (d/b) Percent Increase/ (Decrease) |
|---|---|---|---|---|---|
| **ASSETS** | | | | | |
| Cash | $ 15,314 | $ 5,755 | $ 8,446 | $ 9,559 | 166.10% |
| Receivables | 102,733 | 70,350 | 89,140 | 32,383 | 46.03% |
| Investments, at Fair Value | 10,105,671 | 9,380,575 | 8,291,175 | 725,096 | 7.73% |
| Capital Assets, Net | 5,811 | 6,391 | 7,304 | (580) | (9.08%) |
| **TOTAL ASSETS** | **10,229,529** | **9,463,071** | **8,396,065** | **766,458** | **8.10%** |
| **LIABILITIES** | | | | | |
| Securities Lending | 77,807 | 103,668 | 95,438 | (25,861) | (24.95%) |
| Securities Options Payable | - | 13,231 | 41,851 | (13,231) | (100.0%) |
| Payables for Securities Purchased | 71,917 | 45,647 | 50,514 | 26,270 | 57.55% |
| Other Liabilities | 12,815 | 12,084 | 11,288 | 731 | 6.05% |
| **TOTAL LIABILITIES** | **162,539** | **174,630** | **199,091** | **(12,091)** | **(6.92%)** |
| **NET POSITION – RESTRICTED FOR PENSIONS** | **$ 10,066,990** | **$ 9,288,441** | **$ 8,196,974** | **$ 778,549** | **8.38%** |

In order to determine that the $10.07 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, 2018. The result of the funding 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.

## *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 uses 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, 2018 and 2017 valuations). The Board of Retirement (Board) reviews all assumptions used by the actuary every three years.

## *Capital Assets*

SBCERA's capital assets decreased from $6.39 million to $5.81 million (net of accumulated depreciation and amortization) between the years ended June 30, 2017 and 2018, and from $7.30 million to $6.39 million between the years ended June 30, 2016 and 2017. This investment in capital assets includes equipment, furniture, leasehold improvements, software, and technology infrastructure with an initial cost of $25 thousand or more and a life expectancy over one year. The total decrease in SBCERA's investment in capital assets for the year ended June 30, 2018 was $580 thousand from 2017. The total decrease in SBCERA's investment in capital assets for the year ended June 30, 2017 was $913 thousand from 2016. The decreases are primarily due to older assets being fully depreciated or amortized during 2018 and 2017.

## *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 the following page 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 $46.13 million at June 30, 2018 from ($97.54) million at June 30, 2017 and ($539.99) million at June 30, 2016, or an increase of approximately $143.67 million to the year ended June 30, 2018 from the year ended June 30, 2017 and an increase of $442.45 million to the year ended June 30, 2017 from the year ended June 30, 2016, respectively as detailed on the next page.

## Reserves *(Continued)*

- The overall increase in the fair value of investments for the years ended June 30, 2018 and 2017, and a decrease in the year ended June 30, 2016
- Interest crediting at the actuarial assumed interest rate of 7.25% for the years ended June 30, 2018 and 2017, and 7.50% for the year ended June 30, 2016, 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, 2018, 2017 and 2016*
*(Amounts in Thousands)*

| Type of Reserve | 2018 | 2017 | 2016 |
|---|---|---|---|
| Member Deposit Reserve[1] | $ 1,418,875 | $ 1,345,262 | $ 1,288,669 |
| Employer Current Service Reserve[1] | 2,558,813 | 2,398,395 | 2,265,676 |
| Contra Account[1] | (2,938,180) | (2,689,760) | (2,476,403) |
| Pension Reserve[1] | 4,603,736 | 4,327,170 | 4,022,989 |
| Cost-of-Living Reserve[1] | 2,080,398 | 1,913,071 | 1,752,232 |
| Annuity Reserve[1] | 2,218,705 | 2,017,325 | 1,813,068 |
| Supplemental Disability Reserve[1] | 7,819 | 8,194 | 8,639 |
| Survivor Benefit Reserve[1] | 70,068 | 65,633 | 61,357 |
| Burial Allowance Reserve[2] | 629 | 686 | 732 |
| **TOTAL RESERVES (SMOOTHED MARKET ACTUARIAL VALUE)** | **10,020,863** | **9,385,976** | **8,736,959** |
| **Net Unrecognized Gains/(Losses)** | **46,127** | **(97,535)** | **(539,985)** |
| **NET POSITION – RESTRICTED FOR PENSIONS INCLUDING NON-VALUATION RESERVES, AT FAIR VALUE** | **$ 10,066,990** | **$ 9,288,441** | **$ 8,196,974** |

(1) Included in valuation value of assets.
(2) Not included in valuation value of assets.

## *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 from investment income (net of investment expenses). Additions for the year ended June 30, 2018 totaled $1.33 billion compared to $1.60 billion for June 30, 2017 and $399.62 million for June 30, 2016. Refer to Table 3, on the next page, for further information. Overall, additions decreased by $272.60 million or a 17.01% decrease between the years ended June 30, 2017 and 2018 due primarily to a 27.38% decrease in net investment income compared to the prior year. Employer and member contributions also increased by 5.05% and 3.91%, respectively, compared to the prior year. Net securities lending income decreased by 42.65% compared to the prior year. 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.

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.

### 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, 2018 totaled $551.39 million, an increase of $40.32 million or 7.89% over the June 30, 2017 amount of $511.07 million. The increase in deductions for the year ended June 30, 2017 was $36.77 million or 7.75% over the June 30, 2016 amount of $474.30 million. Refer to Table 3, on the next page, 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 remained relatively stable in all years. 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, and increases in actuarial consulting costs related to employer cost group issues. 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.

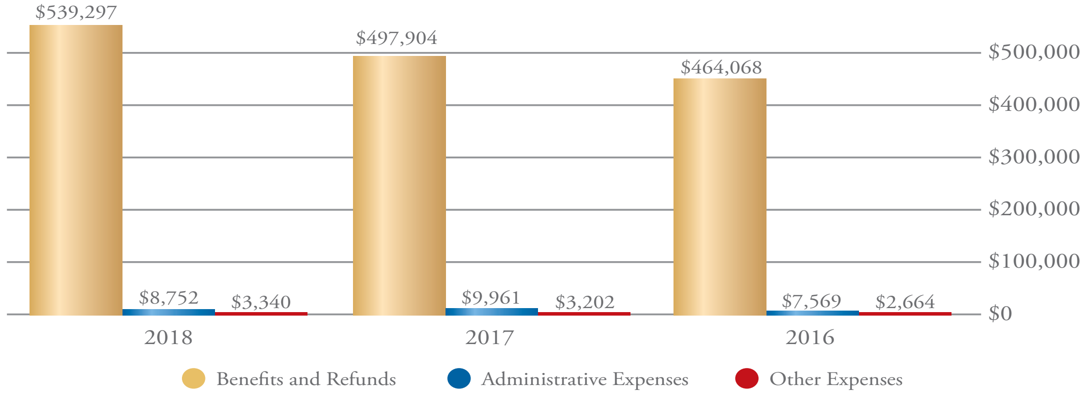
## *Additions and Deductions to Fiduciary Net Position* *(Continued)*

### Changes in Fiduciary Net Position (Table 3)

*For the Years Ended June 30, 2018, 2017 and 2016*
*(Amounts in Thousands)*

| | (a) 2018 | (b) 2017 | (c) 2016 | (a-b=d) Amount Increase/ (Decrease) | (d/b) Percent Increase/ (Decrease) |
|---|---|---|---|---|---|
| **ADDITIONS** | | | | | |
| Employer Contributions | $ 378,668 | $ 360,478 | $ 340,512 | $ 18,190 | 5.05% |
| Member Contributions | 149,478 | 143,858 | 139,132 | 5,620 | 3.91% |
| Plan Asset Transfer from an Outside Plan | 4,312 | - | - | 4,312 | 100.00% |
| Net Investment Income/(Loss)[1] | 797,242 | 1,097,783 | (80,390) | (300,541) | (27.38%) |
| Net Securities Lending Income | 238 | 415 | 362 | (177) | (42.65%) |
| **TOTAL ADDITIONS** | **1,329,938** | **1,602,534** | **399,616** | **(272,596)** | **(17.01%)** |
| **DEDUCTIONS (refer to graph below)** | | | | | |
| Benefits and Refunds | 539,297 | 497,904 | 464,068 | 41,393 | 8.31% |
| Administrative Expenses | 8,752 | 9,961 | 7,569 | (1,209) | (12.14%) |
| Other Expenses | 3,340 | 3,202 | 2,664 | 138 | 4.31% |
| **TOTAL DEDUCTIONS** | **551,389** | **511,067** | **474,301** | **40,322** | **7.89%** |
| **INCREASE/(DECREASE) IN NET POSITION – RESTRICTED FOR PENSIONS** | **778,549** | **1,091,467** | **(74,685)** | **(312,918)** | **(28.67%)** |
| **NET POSITION - RESTRICTED FOR PENSIONS** | | | | | |
| **BEGINNING OF YEAR** | **9,288,441** | **8,196,974** | **8,271,659** | **1,091,467** | **13.32%** |
| **END OF YEAR** | **$10,066,990** | **$ 9,288,441** | **$ 8,196,974** | **$ 778,549** | **8.38%** |

*(Amounts in Thousands)*




(1) Net of investment expenses of $160,666, $163,990 and $92,084 for the years ended June 30, 2018, 2017 and 2016, respectively.

## *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 - An Amendment of GASB Statement No. 25*. These standards require governmental employers to recognize their long-term obligation for pension benefits as a liability on their statements of fiduciary net position, 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 is 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, 2018 and 2017.

Based on the June 30, 2018, 2017, and 2016 actuarial valuations, the NPL of participating employers on a fair value basis are $2.53 billion, $2.64 billion, and $2.47 billion, respectively. Refer to Table 4, below, for further information. The decrease of $101.92 million or 3.87% from 2017 to 2018 is primarily a result of net investment gains outpacing the increase in total pension liability. 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. 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)

*As of June 30, 2018, 2017 and 2016*
*(Amounts in Thousands)*

| | (a) 2018 | (b) 2017 | (c) 2016 | (a-b=d) Amount Increase/ (Decrease) | (d/b) Percent Increase/ (Decrease) |
|---|---|---|---|---|---|
| Total Pension Liability | $ 12,600,570 | $ 11,923,945 | $ 10,665,212 | $ 676,625 | 5.67% |
| Less Plan Fiduciary Net Position | 10,066,990 | 9,288,441 | 8,196,974 | 778,549 | 8.38% |
| **NET PENSION LIABILITY OF PARTICIPATING EMPLOYERS** | **$ 2,533,580** | **$ 2,635,504** | **$ 2,468,238** | **$ (101,924)** | **(3.87%)** |

## *Overall Analysis*

For the year ended June 30, 2018, SBCERA's financial position and results from operations have experienced a significant increase from the prior year as net position increased by $778.55 million from the year ended June 30, 2017. For the year ended June 30, 2017, net position increased by $1.09 billion from the year ended June 30, 2016. The overall increase in net position for June 30, 2018 is primarily attributable to the appreciation in the fair value of the Plan's investment portfolio due to gains incurred from a strengthening financial market. 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*

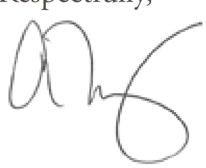
SBCERA's Board and management are fiduciaries of the pension trust fund. Under the California Constitution, the assets of the Plan can only be used for the exclusive benefit of members and their beneficiaries.

## *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

Respectfully,



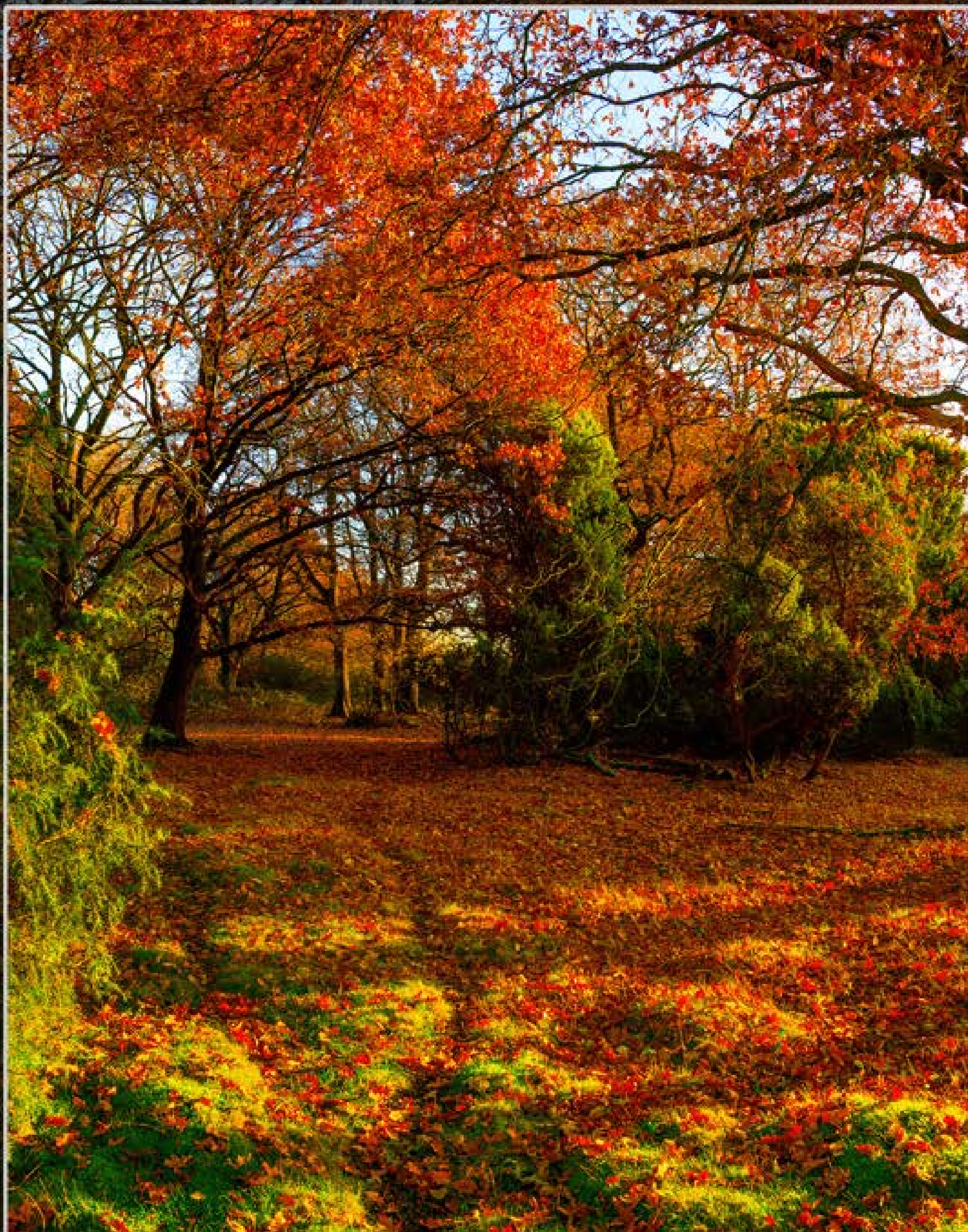
Amy McInerny, CPA
*Chief Financial Officer*

section

2.1

# FINANCIAL

## *Basic Financial Statements*



Oak Glen Preserve Trails

*Yucaipa, California*

*(Elevation Gain: 357 feet)*

# Section 2.1
## FINANCIAL
### *Basic Financial Statements*

## Oak Glen Preserve Trails
*(Yucaipa, California)*

Oak Glen, located near Yucaipa, California, is known for its quaint charm and apple orchards. To preserve the area's private lands, the Wildlands Conservancy helped create the Oak Glen Preserve, which features a botanical garden and an outdoor discovery center with great educational content for kids. The preserve trails are perfect for a relaxing walk with children or grandchildren.

Spending time with loved ones and watching them grow is one of retirement's richest benefits. Through retirement from SBCERA, members can provide stability for their eligible beneficiaries by selecting a retirement option that best meets their needs.

Sources:
http://www.wildlandsconservancy.org/preserve_oakglen.html
https://www.alltrails.com/trail/us/california/oak-glen-preserve-trails

# Statements of Fiduciary Net Position

*As of June 30, 2018 and 2017*
*(Amounts in Thousands)*

| | 2018 | 2017 |
|---|---|---|
| **ASSETS** | | |
| **Cash** | | |
| Cash in Bank | $ 5,773 | $ 4,729 |
| Cash Pooled with County Treasurer | 9,541 | 1,026 |
| **TOTAL CASH** | **15,314** | **5,755** |
| **Receivables** | | |
| Securities Sold | 56,609 | 26,404 |
| Accrued Interest and Dividends | 5,367 | 7,072 |
| Employer and Member Contributions | 35,139 | 32,432 |
| Due from Withdrawn Employers | 519 | 3,756 |
| Due from Outside Plan, Plan Asset Transfer | 4,312 | - |
| Other Receivables | 787 | 686 |
| **TOTAL RECEIVABLES** | **102,733** | **70,350** |
| **Investments, at fair value** | | |
| Short-Term Cash Investment Funds | 938,199 | 1,211,562 |
| Emerging Market Debt | 58,496 | 64,655 |
| United States Government Obligations and Other Municipals | 164,641 | 109,778 |
| Domestic Bonds | 292,613 | 289,093 |
| Foreign Bonds | 48,397 | 60,345 |
| Domestic Common and Preferred Stock | 1,301,076 | 739,261 |
| Foreign Common and Preferred Stock | 839,452 | 992,923 |
| Investments of Cash Collateral Received on Securities Lending | 77,825 | 103,709 |
| Real Estate | 414,468 | 494,425 |
| Domestic Alternatives | 3,992,659 | 3,629,027 |
| Foreign Alternatives | 1,977,845 | 1,685,797 |
| **TOTAL INVESTMENTS, AT FAIR VALUE** | **10,105,671** | **9,380,575** |
| **CAPITAL ASSETS, NET OF ACCUMULATED DEPRECIATION AND AMORTIZATION** | **5,811** | **6,391** |
| **TOTAL ASSETS** | **10,229,529** | **9,463,071** |
| | | |
| **LIABILITIES** | | |
| Securities Lending | 77,807 | 103,668 |
| Securities Options Payable | - | 13,231 |
| Payables for Securities Purchased | 71,917 | 45,647 |
| Other Liabilities | 12,815 | 12,084 |
| **TOTAL LIABILITIES** | **162,539** | **174,630** |
| **NET POSITION - RESTRICTED FOR PENSIONS** | **$ 10,066,990** | **$9,288,441** |

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

# Statements of Changes in Fiduciary Net Position

*For the Years Ended June 30, 2018 and 2017*
*(Amounts in Thousands)*

| | 2018 | 2017 |
|---|---|---|
| **ADDITIONS** | | |
| **Contributions** | | |
| Employer Contributions | $ 378,668 | $ 360,478 |
| Member Contributions | 149,478 | 143,858 |
| **TOTAL CONTRIBUTIONS** | **528,146** | **504,336** |
| **Plan Asset Transfer from an Outside Plan** | **4,312** | **-** |
| **Investment Income** | | |
| Net Appreciation/(Depreciation) in Fair Value of Investments: | | |
| Securities and Alternative Investments | 832,029 | 1,178,909 |
| Real Estate | 17,969 | (16,041) |
| **TOTAL NET APPRECIATION/ (DEPRECIATION) IN FAIR VALUE OF INVESTMENTS** | **849,998** | **1,162,868** |
| **INTEREST INCOME ON CASH AND SECURITIES** | **67,391** | **45,921** |
| **Other Investment Income** | | |
| Dividend Income | 18,311 | 21,165 |
| Net Real Estate Rental Income | 26,343 | 30,356 |
| Other Income/(Loss) | (4,135) | 1,463 |
| **TOTAL OTHER INVESTMENT INCOME** | **40,519** | **52,984** |
| **Less Investment Expenses** | | |
| Investment Advisement Fees | (103,534) | (110,028) |
| Other Investment Expenses | (57,132) | (53,962) |
| **TOTAL INVESTMENT EXPENSES** | **(160,666)** | **(163,990)** |
| **NET INVESTMENT INCOME/(LOSS)** | **797,242** | **1,097,783** |
| **Securities Lending Income** | | |
| Earnings | 1,369 | 1,114 |
| Less: Rebates and Bank Charges | (1,131) | (699) |
| **NET SECURITIES LENDING INCOME** | **238** | **415** |
| **TOTAL ADDITIONS** | **1,329,938** | **1,602,534** |
| **DEDUCTIONS** | | |
| Benefits and Refunds Paid to Members and Beneficiaries | 539,297 | 497,904 |
| Administrative Expenses | 8,752 | 9,961 |
| Other Expenses | 3,340 | 3,202 |
| **TOTAL DEDUCTIONS** | **551,389** | **511,067** |
| **NET INCREASE/(DECREASE) IN NET POSITION** | **778,549** | **1,091,467** |
| **NET POSITION - RESTRICTED FOR PENSIONS** | | |
| **Beginning of Year** | **9,288,441** | **8,196,974** |
| **END OF YEAR** | **$ 10,066,990** | **$ 9,288,441** |

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

## 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 (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 18 active Plan sponsors (participating employers), and 3 withdrawn employers. These include: The County of San Bernardino, Barstow Fire Protection District, Big Bear Fire Authority, 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.

## 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 (effective date of PEPRA) 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.

# Notes to the Basic Financial Statements

*June 30, 2018 and 2017*
*(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, 2018*

| | Tier 1 | | | Tier 2 | | | |
|---|---|---|---|---|---|---|---|
| **Membership Type** | **General** | **Safety** | **Sub-Total** | **General** | **Safety** | **Sub-Total** | **Total** |
| **Active members:** | | | | | | | |
| Active members – vested | 11,504 | 1,661 | 13,165 | 266 | 28 | 294 | 13,459 |
| Active members – non-vested | 101 | 11 | 112 | 6,927 | 967 | 7,894 | 8,006 |
| **TOTAL ACTIVE MEMBERS** | **11,605** | **1,672** | **13,277** | **7,193** | **995** | **8,188** | **21,465** |
| **Inactive members or beneficiaries currently receiving benefits:** | | | | | | | |
| Retirees currently receiving benefits | 9,232 | 1,767 | 10,999 | 9 | 2 | 11 | 11,010 |
| Beneficiaries and dependents currently receiving benefits | 1,348 | 354 | 1,702 | 4 | - | 4 | 1,706 |
| **TOTAL INACTIVE MEMBERS OR BENEFICIARIES CURRENTLY RECEIVING BENEFITS** | **10,580** | **2,121** | **12,701** | **13** | **2** | **15** | **12,716** |
| **Inactive members not receiving benefits:** | | | | | | | |
| Inactive members eligible for, but not yet receiving benefits | 2,293 | 166 | 2,459 | 78 | 19 | 97 | 2,556 |
| Inactive members eligible for refund value of account only[1] | 1,894 | 60 | 1,954 | 1,586 | 115 | 1,701 | 3,655 |
| **TOTAL INACTIVE MEMBERS NOT RECEIVING BENEFITS** | **4,187** | **226** | **4,413** | **1,664** | **134** | **1,798** | **6,211** |
| **TOTAL SBCERA MEMBERSHIP** | **26,372** | **4,019** | **30,391** | **8,870** | **1,131** | **10,001** | **40,392** |

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

## NOTE 1 – Significant Provisions of the Plan

*Membership and Benefit Eligibility* | SBCERA Membership *(Continued)*

### 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 fewer than five years of service credit are entitled to withdraw their refundable member contributions made, together with accumulated interest only.

## 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 fiscal years ended June 30, 2018 and 2017, 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). The annual cap, for Tier 1 members, is applied to the fiscal year for the IRC section 401(a)(17) limit in effect at the beginning of the fiscal year.

General Tier 2 members are eligible for retirement benefits upon completion of five years of service credit and attaining age 52 or attaining age 70 regardless of service credit. 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 per GC 7522.10, 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).

## 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 earnings. 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.

## NOTE 1 – Significant Provisions of the Plan

*Death and Disability Benefits (Continued)*

### Death before Retirement with Fewer than Five Years of Service Credit

If a member with fewer than five years of service credit dies because 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.

## 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 the member. However, in the case of a service-connected disability, the spouse/registered domestic partner must have been married/registered 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.

## NOTE 1 – Significant Provisions of the Plan

*Death and Disability Benefits (Continued)*

### Disability Benefits

The Plan provides disability benefits to eligible members and Article 10 of the CERL governs these benefits.

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.

# Notes to the Basic Financial Statements

*June 30, 2018 and 2017*
*(Continued)*

## NOTE 1 – Significant Provisions of the Plan

*Participating Employers (Continued)*

Three employers have withdrawn from SBCERA and one remains liable for their unfunded actuarial liability at June 30, 2018, two remained liable for their unfunded 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 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, 2018 and 2017.

### Due From Withdrawn Employers

*As of June 30, 2018 and 2017*
*(Amounts in Thousands)*

| Employer | Balance July 1, 2017 | Additions | Deductions | Balance June 30, 2018 |
|---|---|---|---|---|
| IVDA | $ 3,204 | $ - | $ (3,204) | $ - |
| Rim | 552 | - | (33) | 519 |
| **TOTAL** | **$ 3,756** | **$ -** | **$ (3,237)** | **$ 519** |

| Employer | Balance July 1, 2016 | Additions | Deductions | Balance June 30, 2017 |
|---|---|---|---|---|
| IVDA | $ 3,204 | $ - | $ - | $ 3,204 |
| Rim | 586 | - | (34) | 552 |
| **TOTAL** | **$ 3,790** | **$ -** | **$ (34)** | **$ 3,756** |

## 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.

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 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.

## NOTE 2 – Summary of Significant Accounting Policies

*Basis of Accounting* | Investments *(Continued)*

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, 2018 and 2017 was not available at the time of these financial statements, 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, 2018 and 2017.

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, 2018 and 2017, respectively.

## NOTE 2 – Summary of Significant Accounting Policies

*Basis of Accounting* | Investments *(Continued)*

### Asset Allocation Policy

*As of June 30, 2018 and 2017*

| 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.

# 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, 2018 and 2017 (see table on the following 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, and technology costs. 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. 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.

## 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, 2018 | For the Year Ended June 30, 2017 |
|---|---|---|---|
| Actuarial Accrued Liability (AAL)[1] | a | $ 10,669,688 | $ 10,214,473 |
| Statutory Limit for Administrative Expenses (AAL x 0.21%) | | 22,406 | 21,450 |
| Actual Administrative Expenses Subject to Statutory Limit | b | 8,752 | 9,961 |
| **EXCESS OF LIMITATION OVER ACTUAL ADMINISTRATIVE EXPENSES** | | **$ 13,654** | **$ 11,489** |
| **ACTUAL ADMINISTRATIVE EXPENSES AS A PERCENTAGE OF AAL** | **b/a** | **0.08%** | **0.10%** |

### 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 with an initial cost of $25 thousand or more and an estimated useful life in excess of one year. Depreciation and amortization are provided using the straight-line method over the estimated useful lives of the assets, which range from three to thirty-nine years. SBCERA's capital assets are summarized on the next page as of June 30, 2018 and 2017.

(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, 2016 was approved by the Board in December 2016, and was used to establish the statutory limitation for administrative expenses for the year ended June 30, 2018.

# Notes to the Basic Financial Statements

*June 30, 2018 and 2017*
*(Continued)*

## NOTE 2 – Summary of Significant Accounting Policies

*Basis of Accounting* | Capital Assets *(Continued)*

### Capital Assets

*(Amounts in Thousands)*

| | Balance July 1, 2017 | Additions | Deletions | Balance June 30, 2018 |
|---|---|---|---|---|
| Furniture, Equipment & Leaseholds | $ 10,429 | $ 458 | $ - | $ 10,887 |
| Computer Software | 4,395 | - | - | 4,395 |
| Accumulated Depreciation[1] | (6,094) | (426) | - | (6,520) |
| Accumulated Amortization[1] | (2,339) | (612) | - | (2,951) |
| **TOTAL** | **$ 6,391** | **$ (580)** | **$ -** | **$ 5,811** |

| | 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** |

### Reclassification of Financial Statements Presentation

Certain amounts presented in the year ended June 30, 2017 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.

(1) Depreciation and amortization expense totaled $1.04 million and $1.07 million for the years ended June 30, 2018 and 2017, respectively.

## 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 four years of amortization remaining at June 30, 2018. Any new UAAL after June 30, 2002 is amortized over a closed 20-year period effective with that valuation.

## 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, 2016 established the contribution rates for the year ended June 30, 2018. 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 amortized over an "open" amortization period of 30 years. Any prior UAAL amortization layers 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, 2018 and 2017 are $1.72, per biweekly employer pay period.

# Notes to the Basic Financial Statements

*June 30, 2018 and 2017*
*(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, 2018 and 2017. Participating employers satisfied 100% of the contribution requirements for the years ended June 30, 2018 and 2017.

### Employer Contributions

*For the Years Ended June 30, 2018 and 2017*
*(Amounts in Thousands)*

| Contribution Type | 2018 | 2017 |
|---|---|---|
| Actuarially Determined Contributions - Employer Paid | $ 377,743 | $ 359,275 |
| Actuarially Determined Contributions - Member Paid | 116 | 397 |
| Survivor Benefit Contributions | 809 | 806 |
| **TOTAL EMPLOYER CONTRIBUTIONS** | **$ 378,668** | **$ 360,478** |

### Member Contributions

*For the Years Ended June 30, 2018 and 2017*
*(Amounts in Thousands)*

| Contribution Type | 2018 | 2017 |
|---|---|---|
| Actuarially Determined Contributions - Member Paid | $ 139,671 | $ 133,641 |
| Actuarially Determined Contributions - Employer Paid | 4,782 | 5,729 |
| Survivor Benefit Contributions | 809 | 806 |
| Purchase of Eligible Service Credit | 4,216 | 3,682 |
| **TOTAL MEMBER CONTRIBUTIONS** | **$ 149,478** | **$ 143,858** |

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, including survivor benefit contributions, in the amounts of $1.2 million and $1.1 million, for the years ended June 30, 2018 and 2017, respectively.

# Notes to the Basic Financial Statements

*June 30, 2018 and 2017*
*(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, 2018 and 2017. Contribution rates are expressed as a percentage of covered payroll.

### Employer Contribution Rates

*For the Year Ended June 30, 2018*

| | 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% | 10.91% | **22.41%** | 8.45% | 10.91% | **19.36%** |
| County Safety Members | 22.14% | 28.06% | **50.20%** | 15.15% | 28.06% | **43.21%** |
| Superior Court Members | 11.50% | 13.20% | **24.70%** | 8.45% | 13.20% | **21.65%** |
| SCAQMD Members | 11.68% | 23.25% | **34.93%** | 7.66% | 23.25% | **30.91%** |
| Other General Members | 13.18% | 21.35% | **34.53%** | 8.74% | 21.35% | **30.09%** |
| Other Safety Members | 22.52% | 60.67% | **83.19%** | 13.06% | 60.67% | **73.73%** |

### Employer Contribution Rates

*For the Year Ended June 30, 2017*

| | 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% | 10.83% | **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%** |

(1) Rates are in accordance with the June 30, 2016 actuarial valuation.
(2) Rates are in accordance with the June 30, 2015 actuarial valuation.

## NOTE 3 – Contribution Requirements *(Continued)*

### Member Contribution Rates

*For the Years Ended June 30, 2018 and 2017*

| | 2018[1] | | 2017[2] | |
|---|---|---|---|---|
| **Actuarial Cost Group** | **Lowest[3]** | **Highest[3]** | **Lowest[4]** | **Highest[4]** |
| General Members – Tier 1 | 7.90% | 14.87% | 7.89% | 14.86% |
| Safety Members – Tier 1 | 10.65% | 17.62% | 10.63% | 17.60% |
| County General and Superior Court Members – Tier 2 | 8.45% | 8.45% | 7.73% | 8.37% |
| County Safety Members – Tier 2 | 15.15% | 15.15% | 13.56% | 14.03% |
| SCAQMD Members – Tier 2 | 7.66% | 7.66% | 7.06% | 7.66% |
| Other General Members – Tier 2 | 8.74% | 8.74% | 8.59% | 9.33% |
| Other Safety Members – Tier 2 | 13.06% | 13.06% | 12.76% | 13.21% |

## NOTE 4 – Net Pension Liability of Participating Employers

The components of the net pension liability of participating employers as of June 30, 2018 and 2017 are as follows:

### Net Pension Liability of Participating Employers

*(Amounts in Thousands)*

| | | As of June 30, 2018 | As of June 30, 2017 |
|---|---|---|---|
| Total Pension Liability | a | $ 12,600,570 | $ 11,923,945 |
| Plan Fiduciary Net Position | b | 10,066,990 | 9,288,441 |
| **NET PENSION LIABILITY** | **a-b** | **$ 2,533,580** | **$ 2,635,504** |
| **PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY** | **b/a** | **79.89%** | **77.90%** |

(1) Rates are in accordance with the June 30, 2016 actuarial valuation.
(2) Rates are in accordance with the June 30, 2015 actuarial valuation.
(3) Tier 1 rates are based on age at entry: Lowest rate shown is the lowest rate for entry age 16, and the highest rate shown is the highest entry age rate. Beginning with fiscal year 2018, all Tier 2 members contributed using a single refundable rate (50% of normal cost).
(4) Tier 1 rates are based on age at entry: Lowest rate shown represents entry age 16, and the highest rate shown is the highest entry age rate. For Tier 2 rates, the lowest rate is the non-refundable rate and the highest 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.

# Notes to the Basic Financial Statements

*June 30, 2018 and 2017*
*(Continued)*

## NOTE 4 – Net Pension Liability of Participating Employers *(Continued)*

The net pension liability of participating employers was measured as of June 30, 2018 and 2017 and determined based upon the total pension liability from actuarial valuations as of June 30, 2018 and 2017, respectively.

### *Actuarial Assumptions*

The actuarial assumptions used to determine the total pension liability as of June 30, 2018 and 2017 were based on the results of the June 30, 2017 Actuarial Experience Studies (experience study), which covered the periods from July 1, 2013 through June 30, 2016. They are the same assumptions used in the June 30, 2018 and 2017 actuarial valuations, respectively, which are used to determine future contribution rates for funding purposes. Key assumptions used in the actuarial valuations are presented below:

### Key Assumptions Used in Valuation of Total Pension Liability

| Valuation Date | June 30, 2018 and 2017 |
|---|---|
| Actuarial Experience Study | 3 Year Period Ended June 30, 2016 |
| Actuarial Assumptions: | |
| Discount Rate[1] | 7.25% |
| Inflation | 3.00% |
| Projected Salary Increases[2] | General: 4.50% to 14.50%<br>Safety: 4.70% to 14.50% |
| Cost-of-Living Adjustments | Contingent upon consumer price index with a 2.00% maximum |
| Administrative Expenses | 0.70% of payroll |

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

(1) Includes inflation at 3.00% and is net of pension plan investment expense.
(2) Includes inflation at 3.00%, real "across the board" salary increases of 0.50%, plus merit and promotional increases. Amounts vary by service.

## NOTE 4 – Net Pension Liability of Participating Employers *(Continued)*

### *Mortality Rates*

Mortality rates used in the June 30, 2018 and 2017 actuarial valuations are based on the RP 2014 Healthy Annuitant Mortality Table projected generationally with the two-dimensional MP-2016 projection scale. 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.

### *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, 2018 and 2017, are summarized in the table on the next page. This information will change every three years based on the triennial actuarial experience study.

## 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, 2018 and 2017*

| Asset Class | Investment Classification | 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% |
| Small Cap U.S. Equity | Domestic Common and Preferred Stock | 2.00% | 6.37% |
| Developed International Equity | Foreign Common and Preferred Stock | 6.00% | 6.96% |
| Emerging Market Equity | Foreign Common and Preferred Stock | 6.00% | 9.28% |
| U.S. Core Fixed Income | U.S. Government and Municipals/Domestic Bonds | 2.00% | 1.06% |
| High Yield/Credit Strategies | Domestic Bonds/Foreign Bonds | 13.00% | 3.65% |
| Global Core Fixed Income | Foreign Bonds | 1.00% | 0.07% |
| Emerging Market Debt | Emerging Market Debt | 6.00% | 3.85% |
| Real Estate | Real Estate | 9.00% | 4.37% |
| International Credit | Foreign Alternatives | 11.00% | 6.75% |
| Absolute Return | Domestic Alternatives/Foreign Alternatives | 13.00% | 3.56% |
| Real Assets | Domestic Alternatives/Foreign Alternatives | 5.00% | 6.35% |
| Private Equity | Domestic Alternatives/Foreign Alternatives | 16.00% | 8.47% |
| Cash and Equivalents | Short-Term Cash Investment Funds | 2.00% | (0.17%) |
| **TOTAL** | | **100.00%** | |

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

## NOTE 4 – Net Pension Liability of Participating Employers *(Continued)*

### *Discount Rate*

The discount rate used to measure the total pension liability was 7.25% for the years ended June 30, 2018 and 2017. 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 rate. 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% was applied to all periods of projected benefit payments to determine the total pension liability as of June 30, 2018 and 2017.

The table below presents the net pension liability of participating employers calculated using the discount rate of 7.25% as of June 30, 2018 and 2017, 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, 2018 and 2017*
*(Amounts in Thousands)*

| Net Pension Liability | 1.00% Decrease 6.25% | Current Discount Rate 7.25% | 1.00% Increase 8.25% |
|---|---|---|---|
| June 30, 2018 | $ 4,267,951 | $ 2,533,580 | $ 1,110,972 |
| June 30, 2017 | 4,284,646 | 2,635,504 | 1,279,047 |

## 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.

## 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, 2018 and 2017*

*(Amounts in Thousands)*

| | 2018 | 2017 |
|---|---|---|
| **Valuation Reserves** | | |
| Member Deposit Reserve | $ 1,418,875 | $ 1,345,262 |
| Employer Current Service Reserve | 2,558,813 | 2,398,395 |
| Contra Account | (2,938,180) | (2,689,760) |
| Pension Reserve | 4,603,736 | 4,327,170 |
| Cost-of-Living Reserve | 2,080,398 | 1,913,071 |
| Annuity Reserve | 2,218,705 | 2,017,325 |
| Supplemental Disability Reserve | 7,819 | 8,194 |
| Survivor Benefit Reserve | 70,068 | 65,633 |
| **TOTAL RESERVED FOR PENSIONS** | **10,020,234** | **9,385,290** |
| **Non-Valuation Reserves** | | |
| Burial Allowance Reserve | 629 | 686 |
| **TOTAL – NON -VALUATION RESERVES** | **629** | **686** |
| **TOTAL RESERVES (SMOOTHED MARKET ACTUARIAL VALUE)** | **10,020,863** | **9,385,976** |
| **Net Unrecognized Gains/(Losses)** | **46,127** | **(97,535)** |
| **NET POSITION – RESTRICTED FOR PENSIONS INCLUDING NON-VALUATION RESERVES, AT FAIR VALUE** | **$ 10,066,990** | **$ 9,288,441** |

## NOTE 6 – Securities Lending

SBCERA, pursuant to a Securities Lending Authorization Agreement (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, 2018 and 2017.

SBCERA did not impose any restrictions during the two-year period ended June 30, 2018 on the amount of loans that State Street made on its behalf. Pursuant to the 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, 2018 and 2017, 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, 2018, the liquidity pool had an average duration of 27 days, and a weighted average final maturity of 114 days. As of June 30, 2017, the liquidity pool had an average duration of 29 days, and a weighted average final maturity of 108 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, 2018, SBCERA had no credit risk exposure to borrowers. As of June 30, 2018, the fair value of securities on loan was $119.60 million, with the fair value of cash collateral received for the securities on loan of $77.83 million, and non-cash collateral of $45.42 million. 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.

## 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 $5.77 million and $4.73 million at June 30, 2018 and 2017, 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 $9.54 million and $1.03 million at June 30, 2018 and 2017, respectively. The SBCIP is an external investment pool and is not registered with the Securities and Exchange Commission. At June 30, 2018 and 2017, the SBCIP has a weighted average maturity of 353 and 341 days, respectively. The SBCIP is rated AAA by Fitch. 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.

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*

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.

## NOTE 7 – Deposits and Investments

*Derivatives (Continued)*

The following table provides a summary of the derivative instruments outstanding as of June 30, 2018.

### Derivative Instruments Outstanding

*As of June 30, 2018*
*(Amounts in Thousands)*

| | Changes in Fair Value[4] | | Fair Value at June 30, 2018 | | |
|---|---|---|---|---|---|
| **Investment Derivatives** | **Classification** | **Amount[1]** | **Classification** | **Amount[2]** | **Notional[3]** |
| Commodity Futures Short | Investment Income[5] | $ (699) | Short-Term Cash Investment Funds | $ - | (150) |
| Credit Default Swaps Bought | Investment Income[5] | 6,765 | Domestic Alternatives | (37,982) | $ 922,000 |
| Credit Default Swaps Written | Investment Income[5] | 702 | Domestic Alternatives | 604 | $ 42,150 |
| Equity Options Bought | Investment Income[5] | 21,986 | Domestic Alternatives | - | - |
| Equity Options Written | Investment Income[5] | (11,794) | Securities Options Payable | - | - |
| Fixed Income Futures Long | Investment Income[5] | (7,437) | Domestic Alternatives | - | 374,700 |
| Fixed Income Futures Short | Investment Income[5] | (25,936) | Domestic Alternatives | - | (647,747) |
| Fixed Income Options Bought | Investment Income[5] | (2,119) | Domestic Alternatives | 22,818 | 1,077,607 |
| Foreign Currency Futures Short | Investment Income[5] | 132 | Domestic Alternatives | - | (10,875) |
| Foreign Currency Options Bought | Investment Income[5] | (1,506) | Domestic Alternatives | - | - |
| Futures Options Bought | Investment Income[5] | (5,064) | Domestic Alternatives | 1,939 | 1,898 |
| Fx Forwards | Investment Income[5] | 7,974 | Foreign Common and Preferred Stock | 2,991 | $ 368,363 |
| Index Futures Long | Investment Income[5] | 166,025 | Domestic Alternatives | - | 16,314 |
| Index Futures Short | Investment income[5] | (4,079) | Domestic Alternatives | - | (29) |
| Index Options Bought | Investment Income[5] | 11,755 | Domestic Alternatives | - | - |
| Index Options Written | Investment Income[5] | (3,404) | Securities Options Payable | - | - |
| Rights | Investment Income[5] | (196) | Domestic Alternatives | - | - |
| Total Return Swaps Bond | Investment Income[5] | (42,214) | Domestic Alternatives | 4,491 | $ 500,000 |
| Warrants | Investment Income[5] | 294 | Domestic Alternatives | 294 | $ 23 |
| **TOTAL** | | **$ 111,185** | | **$ (4,845)** | |

(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.

## 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.

## 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, 2018 and 2017 are as follows:

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

*As of June 30, 2018*
*(Amounts in Thousands)*

| Counterparty Name | Total Fair Value | S&P Credit Rating |
|---|---|---|
| Bank of America | $ 466 | A+ |
| Barclays Bank | 11,961 | A |
| BNP Paribas | 50 | A |
| Citibank | 87 | A+ |
| Commonwealth Bank of Australia Sydney | 377 | AA- |
| JP Morgan Chase | 323 | A+ |
| Royal Bank of Canada | 423 | AA- |
| State Street Bank and Trust Company | 1,036 | AA- |
| UBS AG | 369 | A+ |
| Westpac Banking Corporation | 378 | AA- |
| **TOTAL** | **$ 15,470** | |

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

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

| 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** | |

## NOTE 7 – Deposits and Investments

*Derivatives (Continued)*

The maximum exposure SBCERA would face in case of default of all counterparties is $15.47 million and $10.13 million as of June 30, 2018 and 2017, respectively. At June 30, 2018 and 2017, 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, 2018 and 2017, 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, 2018*
*(Amounts in Thousands)*

| | | Investment Maturities | | | |
|---|---|---|---|---|---|
| **Investment Type** | **Fair Value** | **Less than 1 Year** | **1-5 Years** | **6-10 Years** | **More than 10 Years** |
| Credit Default Swaps Bought | $ (37,982) | $ (4) | $ (37,978) | $ - | $ - |
| Credit Default Swaps Written | 604 | - | 604 | - | - |
| Fixed Income Options Bought | 22,818 | - | 1,849 | 11,088 | 9,881 |
| Total Return Swaps Bond | 4,491 | 4,491 | - | - | - |
| **TOTAL** | **$ (10,069)** | **$ 4,487** | **$ (35,525)** | **$ 11,088** | **$ 9,881** |

### Investment Maturities

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

| | | Investment Maturities | | | |
|---|---|---|---|---|---|
| **Investment Type** | **Fair Value** | **Less than 1 Year** | **1-5 Years** | **6-10 Years** | **More than 10 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** |

## 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

*As of June 30, 2018*
*(Amounts in Thousands)*

| | | | Forward Contracts | |
|---|---|---|---|---|
| **Currency** | **Fair Value** | **Options** | **Net Receivables** | **Net Payables** |
| Argentine Peso | $ 190 | $ - | $ 236 | $ (46) |
| Brazilian Real | (103) | - | - | (103) |
| Canadian Dollar | (233) | - | - | (233) |
| Euro Currency | 2,726 | 6 | 2,733 | (13) |
| Japanese Yen | 79 | 11 | 69 | (1) |
| Pound Sterling | 319 | 3 | 401 | (85) |
| South African Rand | 26 | - | 26 | - |
| Swiss Franc | 7 | - | 7 | - |
| **TOTAL** | **$ 3,011** | **$ 20** | **$ 3,472** | **$ (481)** |

### Net Exposure to Foreign Currency Risk for Investment Derivative Instruments

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

| | | | Forward Contracts | |
|---|---|---|---|---|
| **Currency** | **Fair Value** | **Options** | **Net Receivables** | **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)** |

At June 30, 2018 and 2017, SBCERA did not hold any positions in derivatives containing contingent features.

## 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 following tables. 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 following tables, but amount to $46.16 million and $45.61 million as of June 30, 2018 and 2017, respectively. U.S. Treasury obligations are considered obligations of the U.S. Government, are explicitly guaranteed by the U.S. Government, are not considered to have credit risk, and are not shown in the following tables, but amount to $164.50 million and $109.02 million as of June 30, 2018 and 2017, respectively.

## 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, 2018 and 2017 are as follows:

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

*As of June 30, 2018*
*(Amounts in Thousands)*

| | | S&P 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[1] | $ 184,008 | $ - | $ - | $ - | $ 1,645 | $ 8,765 | $ 11,467 | $ - | $ 3 | $ 2 | $ 162,126 |
| Corporate Bonds[2] | 45,327 | - | - | - | - | 69 | 11,132 | 2,878 | - | - | 31,248 |
| Collateralized Mortgage Obligations | 17,119 | - | 64 | - | - | - | - | 2,468 | 14 | - | 14,573 |
| Emerging Market Debt | 58,496 | - | - | - | - | - | - | - | - | - | 58,496 |
| Foreign Bonds | 48,397 | - | - | - | - | - | 307 | 4,034 | - | - | 44,056 |
| Municipals | 141 | - | 74 | - | - | - | - | - | 63 | - | 4 |
| Short-Term Cash Investment Funds | 938,199 | - | - | - | - | - | - | - | - | - | 938,199 |
| **TOTAL** | **$ 1,291,687** | **$ -** | **$ 138** | **$ -** | **$ 1,645** | **$ 8,834** | **$ 22,906** | **$ 9,380** | **$ 80** | **$ 2** | **$ 1,248,702** |

(1) Does not include private placements, which amount to $20,036.
(2) Does not include private placements, which amount to $26,123.
Note: Table above does not include U.S. Treasury obligations, which amount to $164,500, as these obligations are not subject to credit risk.

## 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, 2017*

*(Amounts in Thousands)*

| | | S&P 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 | - | 84 | - | - | - | - | 2,673 | 1,313 | 137 | 4,932 |
| Emerging Market Debt | 64,655 | - | - | - | - | - | - | - | - | - | 64,655 |
| 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** | **$ 1,580,806** | **$ 28,270** | **$ 160** | **$ 8** | **$ 2,023** | **$ 10,400** | **$ 13,978** | **$ 2,676** | **$ 1,316** | **$ 819** | **$ 1,521,156** |

## *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, 2018 and 2017, 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. SBCERA does not have a general policy relating to custodial credit risk.

(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.

## 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, 2018 and 2017, 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, 2018 and 2017, 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.

## NOTE 7 – Deposits and Investments

*Interest Rate Risk (Continued)*

As of June 30, 2018 and 2017, SBCERA had the following Fixed Income and Short-Term Cash Investments:

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

*As of June 30, 2018*
*(Amounts in Thousands)*

| | | Investment Maturities | | | |
|---|---|---|---|---|---|
| **Investment Type** | **Fair Value** | **Less than 6 Months** | **6 Months to 1 Year** | **1-5 Years** | **More than 5 Years** |
| Asset Backed[1] | $ 204,044 | $ - | $ - | $ 2,632 | $ 201,412 |
| Corporate Bonds[2] | 71,450 | 4,415 | - | 31,669 | 35,366 |
| Collateralized Mortgage Obligations | 17,119 | - | - | - | 17,119 |
| Emerging Market Debt[3] | 44,239 | 859 | - | 33,945 | 9,435 |
| Foreign Bonds | 48,397 | 2,333 | 141 | 32,334 | 13,589 |
| Municipals | 141 | - | - | - | 141 |
| Short-Term Cash Investment Funds | 938,199 | 938,199 | - | - | - |
| U.S. Treasury Obligations | 164,500 | 145,712 | 9,327 | 9,461 | - |
| **TOTAL** | **$ 1,488,089** | **$ 1,091,518** | **$ 9,468** | **$ 110,041** | **$ 277,062** |

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

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

| | | Investment Maturities | | | |
|---|---|---|---|---|---|
| **Investment Type** | **Fair Value** | **Less than 6 Months** | **6 Months to 1 Year** | **1-5 Years** | **More than 5 Years** |
| Asset Backed | $ 185,029 | $ - | $ - | $ 2,906 | $ 182,123 |
| Corporate Bonds[4] | 94,925 | 28 | 159 | 42,812 | 51,926 |
| Collateralized Mortgage Obligations | 9,139 | - | - | - | 9,139 |
| Emerging Market Debt | 64,655 | 558 | 15,252 | 13,036 | 35,809 |
| Foreign Bonds[5] | 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 Obligations | 109,019 | 69,851 | 39,168 | - | - |
| **TOTAL** | **$ 1,735,433** | **$ 1,282,026** | **$ 61,271** | **$ 92,129** | **$ 300,007** |

(1) Includes private placements, which amount to $20,036.
(2) Includes private placements, which amount to $26,123.
(3) Does not include underlying investments with no maturity date, which amount to $14,257.
(4) Includes private placements, which amount to $44,717.
(5) Includes private placements, which amount to $891.

## 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, 2018 and 2017 is as follows:

**Net Exposure to Foreign Currency Risk**

*As of June 30, 2018*

*(Amounts in Thousands)*

| | | Type | | |
|---|---|---|---|---|
| **Currency** | **Fair Value** | **Fixed Income** | **Equity** | **Cash** |
| Argentine Peso | $ 2,334 | $ 2,334 | $ - | $ - |
| Australian Dollar | 12,928 | - | 12,030 | 898 |
| Brazilian Real | 4,045 | - | 4,045 | - |
| Canadian Dollar | 27,619 | - | 26,013 | 1,606 |
| Euro Currency | 342,320 | 13,283 | 315,378 | 13,659 |
| Japanese Yen | 4,144 | - | - | 4,144 |
| Pound Sterling | 38,608 | 702 | 28,830 | 9,076 |
| Swedish Krona | 465 | - | - | 465 |
| **TOTAL** | **$ 432,463** | **$ 16,319** | **$ 386,296** | **$ 29,848** |

## NOTE 7 – Deposits and Investments

*Foreign Currency Risk (Continued)*

### Net Exposure to Foreign Currency Risk

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

| | | Type | | |
|---|---|---|---|---|
| **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** |

## *Rate of Return*

For the years ended June 30, 2018 and 2017, the annual money-weighted rate of return on the assets of the Plan, net of investment expense, was 8.64% and 13.47%, 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.

## NOTE 7 – Deposits and Investments *(Continued)*

### *Commitments to Fund Partnerships*

As of June 30, 2018 and 2017, the total capital commitments to fund partnerships were $4.63 billion and $4.47 billion, respectively. Of this amount, $985.86 million and $858.29 million, respectively, remained unfunded and is not recorded on the SBCERA Statements of Fiduciary Net Position as of June 30, 2018 and 2017. 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, 2018*
*(Amounts in Thousands)*

| Asset Class | Total Commitments | Unfunded Commitments |
|---|---|---|
| Real Estate | $ 947,718 | $ 127,474 |
| Alternatives | 3,679,667 | 858,384 |
| **TOTAL** | **$ 4,627,385** | **$ 985,858** |

**Total Commitments and Unfunded Commitments to Fund Partnerships by Asset Class**
*As of June 30, 2017*
*(Amounts in Thousands)*

| Asset Class | Total Commitments | Unfunded Commitments |
|---|---|---|
| Real Estate | $ 967,175 | $ 131,171 |
| Alternatives | 3,499,123 | 727,118 |
| **TOTAL** | **$ 4,466,298** | **$ 858,289** |

### *Fair Value Measurements*

SBCERA categorizes its fair value measurements of its investments based on the fair value hierarchy established by GAAP. 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, 2018 and 2017, respectively.

## NOTE 7 – Deposits and Investments

*Fair Value Measurements (Continued)*

### Investments and Derivative Instruments Measured at Fair Value

*As of June 30, 2018 | (Amounts in Thousands)*

| Investment Type | June 30, 2018 | Fair Value Measurements Using: Active Markets for Identical Assets (Level 1) | Significant Other Observable Inputs (Level 2) | Significant Unobservable Inputs (Level 3) |
|---|---|---|---|---|
| **Investments by Fair Value Level** | | | | |
| **Short-Term Cash Investment Funds** | **$ 938,199** | **$ 41,591** | **$ 896,608** | **$ -** |
| **Emerging Market Debt** | **44,239** | **-** | **44,239** | **-** |
| **United States Government Obligations and Other Municipals:** | | | | |
| U.S. Treasury | 164,500 | - | 164,500 | - |
| Municipals | 141 | - | 141 | - |
| **Total United States Government Obligations and Other Municipals** | **164,641** | **-** | **164,641** | **-** |
| **Domestic Bonds:** | | | | |
| Asset Backed | 204,044 | - | 204,044 | - |
| Collateralized Mortgage Obligations | 17,119 | - | 17,119 | - |
| Corporate Bonds | 71,450 | - | 71,450 | - |
| **Total Domestic Bonds** | **292,613** | **-** | **292,613** | **-** |
| **Foreign Bonds** | **48,397** | **-** | **48,397** | **-** |
| **Domestic Common and Preferred Stock** | **985,653** | **971,532** | **11,648** | **2,473** |
| **Foreign Common and Preferred Stock** | **410,737** | **305,630** | **51,957** | **53,150** |
| **Investments of Cash Collateral Received on Securities Lending** | **77,825** | **-** | **77,825** | **-** |
| **Domestic Alternatives** | **43,529** | **3,055** | **40,441** | **33** |
| **Foreign Alternatives** | **14,751** | **-** | **8,143** | **6,608** |
| **TOTAL INVESTMENTS BY FAIR VALUE LEVEL** | **$ 3,020,584** | **$ 1,321,808** | **$ 1,636,512** | **$ 62,264** |
| **Investment Derivative Instruments** | | | | |
| Swaps | $ (32,887) | $ - | $ (32,887) | $ - |
| Options | 25,051 | - | 25,051 | - |
| Forward Contracts | 2,991 | 2,991 | - | - |
| **TOTAL INVESTMENT DERIVATIVE INSTRUMENTS** | **$ (4,845)** | **$ 2,991** | **$ (7,836)** | **$ -** |
| **Investments Measured at the Net Asset Value (NAV)** | | | | |
| **Emerging Market Debt** | **$ 14,257** | | | |
| **Domestic Common and Preferred Stock** | **315,423** | | | |
| **Foreign Common and Preferred Stock** | **425,724** | | | |
| **Real Estate** | **414,468** | | | |
| **Domestic Alternatives:** | | | | |
| Absolute Return Composite | 1,000,465 | | | |
| Non-U.S. Developed Credit | 296,934 | | | |
| Private Equity - Commodities | 223,410 | | | |
| Private Equity - Composite | 1,353,718 | | | |
| Private Equity - Infrastructure | 77,511 | | | |
| Private Equity - Real Assets | 112,634 | | | |
| U.S. Credit Strategies | 892,294 | | | |
| **Total Domestic Alternatives** | **3,956,966** | | | |
| **Foreign Alternatives:** | | | | |
| Absolute Return Composite | 2,910 | | | |
| Non-U.S. Developed Credit | 1,679,908 | | | |
| Private Equity - Composite | 280,276 | | | |
| **Total Foreign Alternatives** | **1,963,094** | | | |
| **TOTAL INVESTMENTS MEASURED AT THE NAV** | **$ 7,089,932** | | | |
| **TOTAL INVESTMENTS MEASURED AT FAIR VALUE** | **$ 10,105,671** | | | |

# 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)*

| | | Fair Value Measurements Using | | |
|---|---|---|---|---|
| **Investment Type** | **June 30, 2017** | **Active Markets for Identical Assets (Level 1)** | **Significant Other Observable Inputs (Level 2)** | **Significant Unobservable Inputs (Level 3)** |
| **Investments by Fair Value Level** | | | | |
| **Short-Term Cash Investment Funds** | **$ 1,211,562** | **$ 21,612** | **$ 1,189,950** | **$ -** |
| **Emerging Market Debt** | **53,462** | **-** | **53,462** | **-** |
| **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** | **-** |
| **Domestic Bonds:** | | | | |
| Asset Backed | 185,029 | - | 185,029 | - |
| Collateralized Mortgage Obligations | 9,139 | - | 9,139 | - |
| Corporate Bonds | 94,925 | - | 94,925 | - |
| **Total Domestic Bonds** | **289,093** | **-** | **289,093** | **-** |
| **Foreign Bonds** | **60,345** | **-** | **60,345** | **-** |
| **Domestic Common and Preferred Stock** | **695,860** | **703,665** | **(8,525)** | **720** |
| **Foreign Common and Preferred Stock** | **845,729** | **492,151** | **80,563** | **273,015** |
| **Investments of Cash Collateral Received on Securities Lending** | **103,709** | **-** | **103,709** | **-** |
| **Domestic Alternatives** | **36,097** | **1,327** | **34,753** | **17** |
| **Foreign Alternatives** | **5,416** | **-** | **2,731** | **2,685** |
| **TOTAL INVESTMENTS BY FAIR VALUE LEVEL** | **$ 3,411,051** | **$ 1,218,755** | **$ 1,915,859** | **$ 276,437** |
| **Investment Derivative Instruments** | | | | |
| Swaps | $ (41,062) | $ - | $ (41,062) | $ - |
| Options | 59,677 | - | 59,677 | - |
| Forward Contracts | (794) | (794) | - | - |
| **TOTAL INVESTMENT DERIVATIVE INSTRUMENTS** | **$ 17,821** | **$ (794)** | **$ 18,615** | **$ -** |
| **Investments measured at the Net Asset Value (NAV)** | | | | |
| **Emerging Market Debt** | **$ 11,193** | | | |
| **Domestic Common and Preferred Stock** | **43,401** | | | |
| **Foreign Common and Preferred Stock** | **147,988** | | | |
| **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 | 1,423,759 | | | |
| Private Equity - Composite | 253,145 | | | |
| **Total Foreign Alternatives** | **1,680,381** | | | |
| **TOTAL INVESTMENTS MEASURED AT THE NAV** | **$ 5,951,703** | | | |
| **TOTAL INVESTMENTS MEASURED AT FAIR VALUE** | **$ 9,380,575** | | | |

## 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, domestic 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. Alternative securities classified in Level 3 of the fair value hierarchy are valued using the discounted cash flow method or proprietary pricing information.

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.

## 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, 2018 and 2017.

### Investments Measured at the NAV

*As of June 30, 2018*
*(Amounts in Thousands)*

| Investment Type | Fair Value | Unfunded Commitments | Redemption Frequency (if Currently Eligible)[1] | Redemption Notice Period |
|---|---|---|---|---|
| **Emerging Market Debt** | **$ 14,257** | **$ -** | N/A | N/A |
| **Domestic Common and Preferred Stock** | **315,423** | **-** | N/A | 30 days |
| **Foreign Common and Preferred Stock** | **425,724** | **-** | N/A | 30 days |
| **Real Estate** | **414,468** | **127,474** | D,Q | 30-90 days |
| **Domestic Alternatives:** | | | | |
| Absolute Return Composite | 1,000,465 | 81,600 | D,Q | 65 days |
| Non-U.S. Developed Credit | 296,934 | - | D,M | 20 days |
| Private Equity - Commodities | 223,410 | 4,188 | A | 180 days |
| Private Equity - Composite | 1,353,718 | 566,565 | SA | 185 days |
| Private Equity - Infrastructure | 77,511 | - | D | 3 days |
| Private Equity - Real Assets | 112,634 | - | N/A | N/A |
| U.S. Credit Strategies | 892,294 | - | D,Q,SA | 3-180 days |
| **Total Domestic Alternatives** | **3,956,966** | **652,353** | | |
| **Foreign Alternatives:** | | | | |
| Absolute Return Composite | 2,910 | 8,592 | N/A | N/A |
| Non-U.S. Developed Credit | 1,679,908 | - | D,Q | 3-90 days |
| Private Equity - Composite | 280,276 | 197,439 | N/A | N/A |
| **Total Foreign Alternatives** | **1,963,094** | **206,031** | | |
| **TOTAL INVESTMENTS MEASURED AT THE NAV** | **$ 7,089,932** | **$ 985,858** | | |

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

## NOTE 7 – Deposits and Investments

*Fair Value Measurements (Continued)*

### Investments Measured at the NAV

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

| Investment Type | Fair Value | Unfunded Commitments | Redemption Frequency (if Currently Eligible)[1] | Redemption Notice Period |
|---|---|---|---|---|
| **Emerging Market Debt** | **$ 11,193** | **$ -** | N/A | N/A |
| **Domestic Common and Preferred Stock** | **43,401** | **-** | N/A | 30 days |
| **Foreign Common and Preferred Stock** | **147,988** | **-** | N/A | 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 | 1,423,759 | - | D | 3 days |
| Private Equity - Composite | 253,145 | 150,234 | N/A | N/A |
| **Total Foreign Alternatives** | **1,680,381** | **158,748** | | |
| **TOTAL INVESTMENTS MEASURED AT THE NAV** | **$ 5,951,703** | **$ 858,289** | | |

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 in this category are not redeemable as of June 30, 2018 and 2017.

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

## 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. As of June 30, 2018 and 2017, investments in this category cannot be redeemed because the investments include restrictions that do not allow for redemption.

Foreign common and preferred stock includes investments in equities that invest in assets that focus on global 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. As of June 30, 2018 and 2017, investments in this category 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 32% and 50% of the value of the investments as of June 30, 2018 and 2017, respectively, cannot be redeemed with the funds. It is expected that the underlying assets of the funds will be liquidated over the next one to eight 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 43% and 69% of the value of the investments as of June 30, 2018 and 2017, respectively, cannot be redeemed.

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. Investments representing approximately 69% and 100% of the value of the investments as of June 30, 2018 and 2017, respectively, 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 one to ten years.

## 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 one to ten 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% of the value of the investments at June 30, 2018 and 2017, respectively, cannot be redeemed with the funds. It is expected that the underlying assets of the funds will be liquidated over the next five to nine 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 six to nine 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 8% and 3% of the value of the investments as of June 30, 2018 and 2017, 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 four 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.

## 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 six to ten 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, 2018 and 2017 were $314 thousand and $316 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.

section

# 2.2

# FINANCIAL

## *Required Supplementary Information*

*(Unaudited)*

Little Canyon Loop

*Chino Hills State Park*

*(Elevation Gain: 400 feet)*

# Section 2.2

## FINANCIAL

### *Required Supplementary Information*

*(Unaudited)*

## Little Canyon Loop

*(Chino Hills State Park)*

For those who love biking, hiking, camping, or all of the above, Chino Hills State Park is a local treasure. The park features a variety of microclimates and a diverse collection of native wildlife species.

A popular trail within the park is the Little Canyon Loop. After sufficient rainfall, hikers can walk along lush green rolling hills and see mountainscapes in the distance.

At times, retirement can feel far off in the distance. However, it is not out of reach when planning and goal setting is applied. SBCERA's Retirement Specialists provide members with benefit estimates and retirement checklists to help them reach their destination.

Sources:

http://www.parks.ca.gov/pages/648/files/ChinoHillsFinalWebLayout2016.pdf

https://www.alltrails.com/trail/us/california/little-canyon-loop--2

# 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 |
|---|---|---|---|---|---|
| 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% |
| 2018 | 378,668 | 378,668 | - | 1,406,470 | 26.92% |

# 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% |
| 2018 | 8.64% |

(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.

(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, 2009 through 2012 is not available in a comparable format.

See accompanying notes to the Required Supplementary Information.

# Schedule of Changes in Net Pension Liability of Participating Employers and Related Ratios

*(Amounts in Thousands)*

| | | June 30, 2018 | June 30, 2017 | June 30, 2016 |
|---|---|---|---|---|
| **Total Pension Liability** | | | | |
| Service Cost | | $ 321,931 | $ 300,779 | $ 295,458 |
| Interest | | 868,277 | 803,778 | 770,842 |
| Liability Transfer from an Outside Plan | | 5,923 | - | - |
| Differences Between Expected and Actual Experience | | 19,791 | (10,634) | (151,493) |
| Changes of Assumptions | | - | 662,714 | - |
| Benefit Payments, Including Refunds of Member Contributions | | (539,297) | (497,904) | (464,068) |
| **NET CHANGE IN TOTAL PENSION LIABILITY** | | **676,625** | **1,258,733** | **450,739** |
| **Total Pension Liability – Beginning** | | **11,923,945** | **10,665,212** | **10,214,473** |
| **TOTAL PENSION LIABILITY – ENDING** | **a** | **$ 12,600,570** | **$ 11,923,945** | **$ 10,665,212** |
| **Plan Fiduciary Net Position** | | | | |
| Contributions – Employers[1] | | $ 378,668 | $ 360,478 | $ 340,512 |
| Contributions – Members[1] | | 149,478 | 143,858 | 139,132 |
| Transfer from an Outside Plan | | 4,312 | - | - |
| Net Investment Income/(Loss) | | 797,480 | 1,098,198 | (80,028) |
| Benefit Payments, Including Refunds of Member Contributions | | (539,297) | (497,904) | (464,068) |
| Administrative Expenses | | (8,752) | (9,961) | (7,569) |
| Other Expenses | | (3,340) | (3,202) | (2,664) |
| **NET CHANGE IN PLAN FIDUCIARY NET POSITION** | | **778,549** | **1,091,467** | **(74,685)** |
| **Plan Fiduciary Net Position – Beginning** | | **9,288,441** | **8,196,974** | **8,271,659** |
| **PLAN FIDUCIARY NET POSITION – ENDING** | **b** | **$ 10,066,990** | **$ 9,288,441** | **$ 8,196,974** |
| **NET PENSION LIABILITY** | **a-b=c** | **$ 2,533,580** | **$ 2,635,504** | **$ 2,468,238** |
| **PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY** | **b/a** | **79.89%** | **77.90%** | **76.86%** |
| **COVERED PAYROLL[2]** | **d** | **$ 1,406,470** | **$ 1,346,408** | **$ 1,309,095** |
| **NET PENSION LIABILITY AS A PERCENTAGE OF COVERED PAYROLL** | **c/d** | **180.14%** | **195.74%** | **188.55%** |

(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, 2009 through June 30, 2012 is not available in a comparable format.

See accompanying notes to the Required Supplementary Information.

# Schedule of Changes in Net Pension Liability of Participating Employers and Related Ratios

*(Amounts in Thousands)*
*(Continued)*

| | | June 30, 2015 | June 30, 2014 | June 30, 2013 |
|---|---|---|---|---|
| **Total Pension Liability** | | | | |
| Service Cost | | $ 290,642 | $ 271,473 | $ 273,020 |
| Interest | | 732,842 | 709,993 | 673,932 |
| Liability Transfer from an Outside Plan | | - | - | - |
| Differences Between Expected and Actual Experience | | (75,362) | (306,201) | (97,497) |
| Changes of Assumptions | | - | 328,748 | - |
| Benefit Payments, Including Refunds of Member Contributions | | (428,475) | (397,823) | (367,396) |
| **NET CHANGE IN TOTAL PENSION LIABILITY** | | **519,647** | **606,190** | **482,059** |
| **Total Pension Liability – Beginning** | | **9,694,826** | **9,088,636** | **8,606,577** |
| **TOTAL PENSION LIABILITY – ENDING** | **a** | **$ 10,214,473** | **$ 9,694,826** | **$ 9,088,636** |
| | | | | |
| **Plan Fiduciary Net Position** | | | | |
| Contributions – Employers[1] | | $ 303,244 | $ 330,330 | $ 303,080 |
| Contributions – Members[1] | | 129,895 | 89,861 | 91,056 |
| Transfer from an Outside Plan | | - | - | - |
| Net Investment Income/(Loss) | | 280,842 | 877,018 | 912,310 |
| Benefit Payments, Including Refunds of Member Contributions | | (428,475) | (397,823) | (367,396) |
| Administrative Expenses | | (6,710) | (6,386) | (6,258) |
| Other Expenses | | (2,208) | (2,483) | (1,572) |
| **NET CHANGE IN PLAN FIDUCIARY NET POSITION** | | **276,588** | **890,517** | **931,220** |
| **Plan Fiduciary Net Position – Beginning** | | **7,995,071** | **7,104,554** | **6,173,334** |
| **PLAN FIDUCIARY NET POSITION – ENDING** | **b** | **$ 8,271,659** | **$ 7,995,071** | **$ 7,104,554** |
| | | | | |
| **NET PENSION LIABILITY** | **a-b=c** | **$ 1,942,814** | **$ 1,699,755** | **$ 1,984,082** |
| | | | | |
| **PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY** | **b/a** | **80.98%** | **82.47%** | **78.17%** |
| **COVERED PAYROLL[2]** | **d** | **$ 1,267,667** | **$ 1,262,752** | **$ 1,260,309** |
| **NET PENSION LIABILITY AS A PERCENTAGE OF COVERED PAYROLL** | **c/d** | **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, 2009 through June 30, 2012 is not available in a comparable format.
See accompanying notes to the Required Supplementary Information.

# 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 2018 and determined based upon the total pension liability from actuarial valuations as of June 30, 2013 through 2018, 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 2018.

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 2018, 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 2018. See schedules of changes to actuarial methods and assumptions shown on pages 88 and 89 for actuarial methods and assumptions used for the years ended June 30, 2013 through 2018. Note: The discount rate of return used for the years ended June 30, 2013 through 2018 is equal to the investment rate of return shown on page 88.

## ***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, 2009 through 2018 (adjustments were made to more closely reflect actual experience unless indicated otherwise):

### Schedule of Actuarial Experience Studies

*For the Years Ended June 30, 2009 through 2018*

| Years Ended June 30 | Date of Actuarial Experience Study | Periods Covered in Actuarial Experience Study |
|---|---|---|
| 2009 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 to 2018 | 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, 2009 through 2018*

| 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 |
|---|---|---|---|---|---|---|---|
| 2009 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 to 2018 | 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, 2009 through 2018*

| Years Ended June 30 | Actuarial Cost Method | Amortization Method[3] | Remaining Amortization Period[4] | Asset Valuation Method |
|---|---|---|---|---|
| 2009 to 2018 | 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 temporary 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, 2009 through 2018*

| Years Ended June 30 | Marriage Assumption[1] | Mortality Rates[2] (General) | Mortality Rates[2] (Safety) | Reciprocity Assumption | Deferral Age for Vested Terminations |
|---|---|---|---|---|---|
| 2009 to 2010 | Male members 75%<br>Female members 55% | RP-2000 Combined Healthy Mortality Table:<br>M - SB one year<br>DML - SF five years<br>DFL - SF six years | RP-2000 Combined Healthy Mortality Table:<br>M - SB one year | 40% | General members Age 57<br>Safety members Age 53 |
| 2011 to 2013 | Male members 70%<br>Female members 55% | RP-2000 Combined Healthy Mortality Table:<br>M - SB two years<br>DML - SF four years<br>DFL - SF five years | RP-2000 Combined Healthy Mortality Table:<br>M - SB three years<br>DM - SF one year | 40% | General members Age 58<br>Safety members Age 52 |
| 2014 to 2016 | Male members 70%<br>Female members 55% | RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020:<br>DML - SF seven years<br>DFL - SF eight years | RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020:<br>ML - SB two years<br>FL - SB one year<br>DM - SF two years | General members 40%<br>Safety members 50% | General members Age 58<br>Safety members Age 52 |
| 2017 to 2018 | Male members 65%<br>Female members 55% | RP-2014 Healthy Annuitant Mortality Table:<br>ML - SF one year<br>DM - SF seven years; projected generationally with two-dimensional MP-2016 projection scale | RP-2014 Healthy Annuitant Mortality Table:<br>M - SB one year<br>DM - SB one year; projected generationally with two-dimensional MP-2016 projection scale | General members 40%<br>Safety members 60% | General members Age 59<br>Safety members Age 53 |

(1) Assumed married at retirement or pre-retirement death.
(2) Type of Member: M = Member; ML = Male Member; FL = Female Member; DM = Disabled Member; DML = Disabled Male Member; DFL = Disabled Female Member.
Mortality Table Type: SB = Set Back; SF = Set Forward.

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

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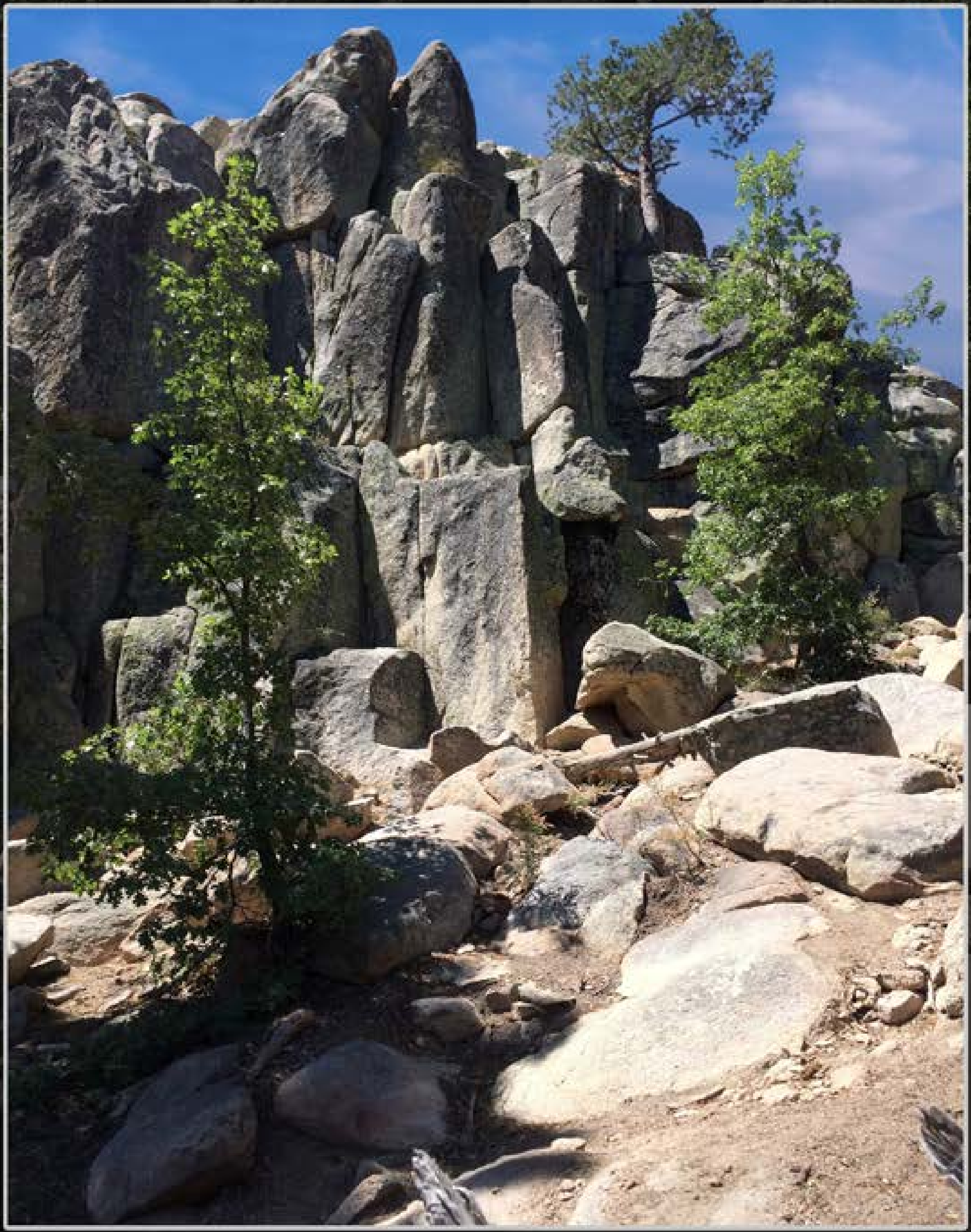
section

# 2.3

# FINANCIAL

## *Other Supplementary Information*



Castle Rock Trail

*Big Bear Lake*

*(Elevation Gain: 833 feet)*

# Section 2.3

## FINANCIAL

## *Other Supplementary Information*

## Castle Rock Trail

*(Big Bear Lake)*

One of San Bernardino County's most popular hikes is Castle Rock. On weekends, the trail is full of hiking enthusiasts, joggers, and those simply seeking a pleasant stroll. Dog lovers also frequent the trail with their four-legged friends. With beautiful Big Bear Lake bordering the trail, Castle Rock has something for practically everyone.

At SBCERA, we have made retirement possible for individuals from all walks of life and various professions, from nurses to accountants, secretaries to social workers, and firefighters to deputies. Any SBCERA Member who continues in the Plan long enough can eventually reach eligibility to collect a lifetime monthly benefit.

Source:
https://www.alltrails.com/trail/us/california/castle-rock-trail

# Schedule of Administrative and Other Expenses

*For the Years Ended June 30, 2018 and 2017*
*(Amounts in Thousands)*

| | 2018 | 2017 |
|---|---|---|
| **Actuarial Accrued Liability (AAL)[1]** | **$ 10,669,688** | **$ 10,214,473** |
| **Statutory Limit for Administrative Expenses (AAL x 0.21%)** | **22,406** | **21,450** |
| | | |
| **Administrative Expenses Subject to Statutory Limit** | | |
| Personnel Services | $ 6,268 | $ 6,357 |
| Professional Services | 941 | 1,062 |
| Operational Miscellaneous | 1,543 | 2,542 |
| **TOTAL ADMINISTRATIVE EXPENSES SUBJECT TO STATUTORY LIMIT** | **8,752** | **9,961** |
| | | |
| **Other Expenses Not Subject to Statutory Limit** | | |
| Actuarial Services[2] | 138 | 253 |
| Legal Services (Non-Investment) | 1,303 | 1,226 |
| Technology Infrastructure | 1,899 | 1,723 |
| **TOTAL OTHER EXPENSES NOT SUBJECT TO STATUTORY LIMIT** | **3,340** | **3,202** |
| **TOTAL ADMINISTRATIVE AND OTHER EXPENSES[3]** | **$ 12,092** | **$ 13,163** |

(1) Refer to Note 2 – Summary of Significant Accounting Policies (see section for Administrative Expenses), for further information.
(2) Actuarial Services expenditure for the year ending June 30, 2017 includes triennial actuarial assumption study.
(3) Does not include investment expenses, see Schedule of Investment Expenses.

# Schedule of Investment Expenses

*For the Years Ended June 30, 2018 and 2017*
*(Amounts in Thousands)*

| Type of Investment Expense | 2018 | 2017 |
|---|---|---|
| **Investment Manager's Advisement Fees** | | |
| **Equity Managers** | | |
| Domestic | $ 2,050 | $ 548 |
| International | 5,720 | 15,272 |
| **TOTAL EQUITY MANAGERS** | **7,770** | **15,820** |
| **Fixed Income Managers** | | |
| Domestic | 3,849 | 3,878 |
| International | 2,269 | 3,185 |
| **TOTAL FIXED INCOME MANAGERS** | **6,118** | **7,063** |
| Alternative Managers | 78,449 | 77,199 |
| Real Estate Managers | 7,912 | 6,777 |
| **TOTAL INVESTMENT MANAGER'S ADVISEMENT FEES** | **100,249** | **106,859** |
| **Other Investment Advisement Fees** | | |
| Consultant Fees | 2,423 | 2,361 |
| Custodian Fees | 708 | 668 |
| Legal Fees | 154 | 140 |
| **TOTAL INVESTMENT ADVISEMENT FEES[1]** | **103,534** | **110,028** |
| **Other Investment Expenses** | | |
| Other Investment Expenses[2] | 54,878 | 51,904 |
| Investment Department Expenses | 2,254 | 2,058 |
| **TOTAL OTHER INVESTMENT EXPENSES** | **57,132** | **53,962** |
| **SECURITIES LENDING REBATES & BANK CHARGES** | **1,131** | **699** |
| **TOTAL INVESTMENT EXPENSES** | **$ 161,797** | **$ 164,689** |

(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, 2018 and 2017*
*(Amounts in Thousands)*

| Type of Service | 2018 | 2017 |
|---|---|---|
| **Payments to Consultants Subject to the Statutory Limit** | | |
| Actuarial Services | $ 5 | $ 7 |
| Audit Services | 59 | 52 |
| Benchmarking Services | 20 | 20 |
| Communication Services | 63 | 62 |
| Human Resource Services | 132 | 23 |
| Medical/Disability Services | 433 | 621 |
| **TOTAL PAYMENTS TO CONSULTANTS SUBJECT TO THE STATUTORY LIMIT[1]** | **712** | **785** |
| | | |
| **Payments to Consultants Not Subject to the Statutory Limit** | | |
| Actuarial Services | 138 | 253 |
| Custodian Services | 708 | 668 |
| Information Technology Services | 107 | 40 |
| Investment Services | 2,423 | 2,361 |
| Legal Services | 397 | 338 |
| **TOTAL PAYMENTS TO CONSULTANTS NOT SUBJECT TO THE STATUTORY LIMIT** | **3,773** | **3,660** |
| **TOTAL PAYMENTS TO CONSULTANTS** | **$ 4,485** | **$ 4,445** |

(1) 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.

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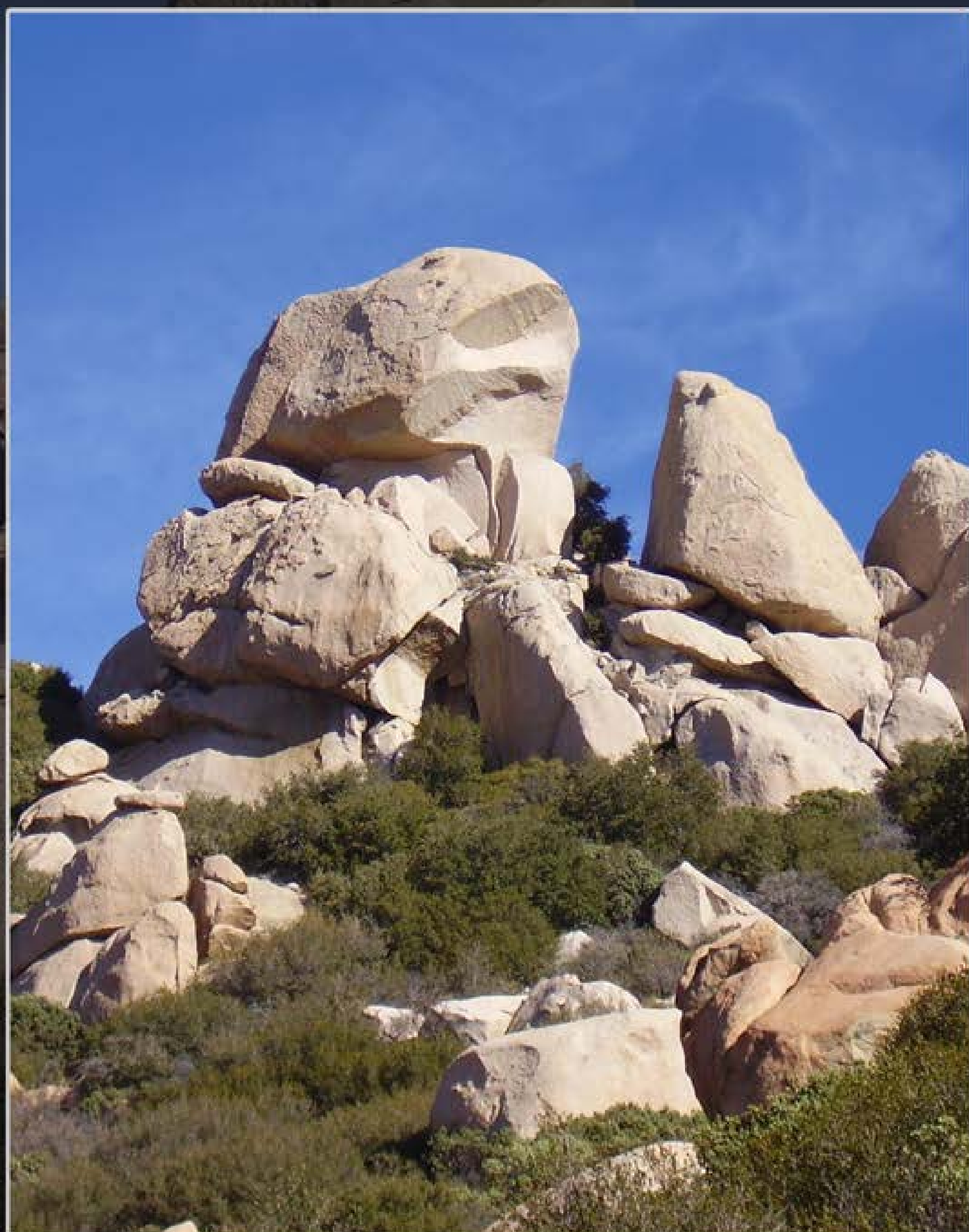
section

# 3.0

# INVESTMENTS

*(Unaudited)*

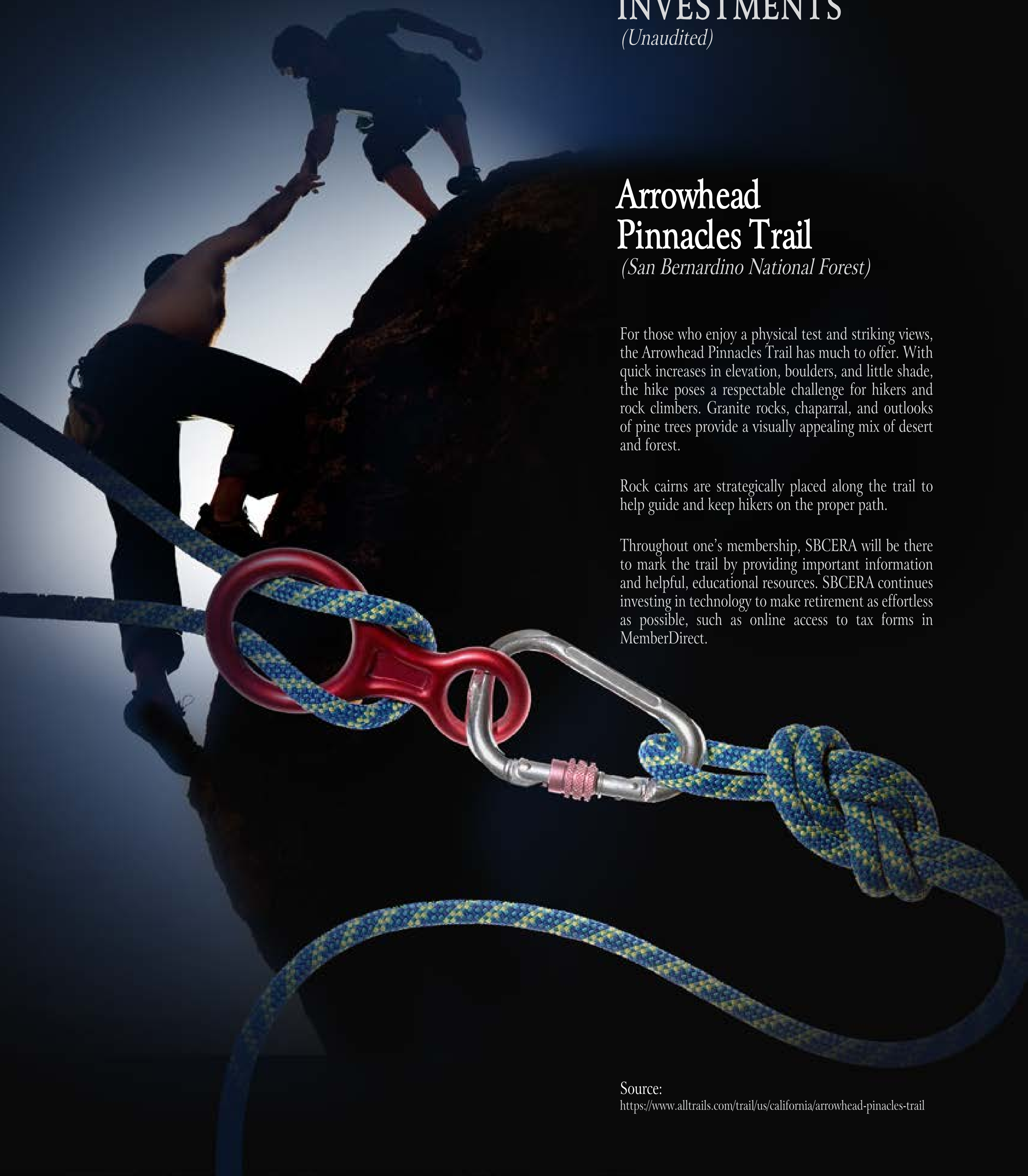


## Arrowhead Pinnacles Trail

*San Bernardino National Forest*

*(Elevation Gain: 1,099 feet)*

# Section 3.0
## INVESTMENTS
*(Unaudited)*



## Arrowhead Pinnacles Trail
*(San Bernardino National Forest)*

For those who enjoy a physical test and striking views, the Arrowhead Pinnacles Trail has much to offer. With quick increases in elevation, boulders, and little shade, the hike poses a respectable challenge for hikers and rock climbers. Granite rocks, chaparral, and outlooks of pine trees provide a visually appealing mix of desert and forest.

Rock cairns are strategically placed along the trail to help guide and keep hikers on the proper path.

Throughout one's membership, SBCERA will be there to mark the trail by providing important information and helpful, educational resources. SBCERA continues investing in technology to make retirement as effortless as possible, such as online access to tax forms in MemberDirect.

Source:
https://www.alltrails.com/trail/us/california/arrowhead-pinacles-trail

# Report on Investment Activity

NEPC, LLC

**Allan Martin**
Partner

November 27, 2018

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 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, 2018 with background on the underlying market environment.

**Market Review for the Year Ended June 30, 2018**

The U.S. economic expansion entered its ninth year, approaching a record for duration, powered by fiscal stimulus from the Tax Cuts and Jobs Act of 2017, corporate earnings growth, and investment of repatriated cash. Although the Federal Reserve Bank maintained its path of methodically normalizing monetary policy through increasing interest rates, US market volatility remained relatively placid with equities appearing to price in near-term expectation of further economic growth. U.S. stocks, as a result, posted their ninth consecutive year of positive returns and outperformed international equities. Global capital markets continued to be largely driven by accommodative Central Bank policy with the European Central Bank and Bank of Japan, suggesting that stimulative monetary policy may persist into 2019 and perhaps beyond. Volatile global markets became a mainstay in the year ending June 30, 2018 as concerns over anti-establishment political change, historically low and broadly negative real interest rates, and fears over U.S. trade policy caused uncertainty to impact investor sentiment. Uncertainty related to these risks was reflected in market volatility, yet these risks were largely shrugged off by markets, resulting in U.S. equities posting a robust 14.4% return as measured by the S&P 500 Index. International developed-markets equities (6.8% for the year) performed well but lagged domestic equities by 7.6%. Underperformance in international developed-markets was driven by political and economic growth uncertainty in Europe. Emerging markets equities underperformed the U.S. and outperformed developed-international equities, though volatility saw an uptick toward the end of the year as markets reacted to U.S. Dollar strength and trade policy uncertainty. Driven by increasing interest rates, U.S. high quality fixed income investments generated a negative return for the second consecutive year, returning -0.4% as measured by the Bloomberg Barclays U.S. Aggregate Bond Index.

**The SBCERA Investment Portfolio**

The SBCERA total investment portfolio return, gross of fees, was 9.0% (8.8% net of fees) for the year ended June 30, 2018. By comparison, the median fund in the Investor Force peer group universe of large Public Funds returned 8.3% 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, 2018 was 7.6% per year, gross of fees (7.3% net of fees), outperforming the actuarial assumed rate of 7.25% and ranking below median in the peer group. SBCERA has chosen an asset allocation policy which reduces

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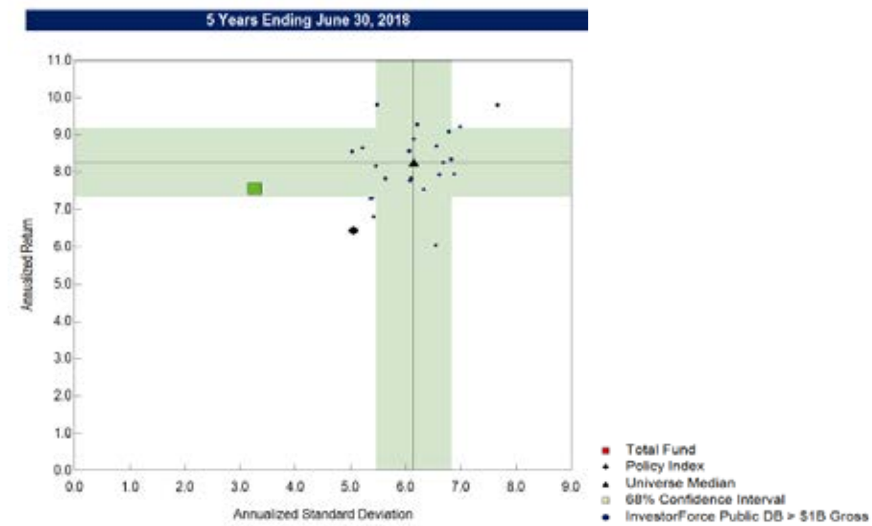
BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | SAN FRANCISCO

NEPC, LLC

the Fund's volatility risk 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 2.2, which ranked in the first percentile of its peers.

**IF Public Funds Greater than $1 Billion Universe[1] Risk-Return Comparison (Gross of Fees)**
**5 Years Ended June 30, 2018**




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 Martin, Partner

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[1] Universe rankings are based on gross of fee performance unless otherwise noted.

# Outline of Investment Policies

*As of June 30, 2018*

## General

The overall goal of SBCERA's investment program is to provide members with retirement benefits as required by the California County Employees Retirement Law of 1937 (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, 2018*
*(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 July 6, 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 asests 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.

# Investment Professionals

*As of June 30, 2018*

## *INVESTMENT MANAGERS*

### Short-Term Cash Investment Funds

Apollo Global Management, LLC
Ares Management, LLC
Ashmore Investment Management Limited
GoldenTree Asset Management, LP
Gramercy Funds Management, LLC
Industry Ventures, LLC
Kayne Anderson Capital Advisors, LP
Mondrian Investment Partners, Ltd
Russell Investment Group
State Street Global Advisors
Zais Group, LLC

### Emerging Market Debt

GoldenTree 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

### Domestic Bonds

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

### Foreign Bonds

GoldenTree Asset Management, LP
Gramercy Funds Management, LLC

### Domestic Common and Preferred Stock

Alcentra Capital Corporation
Apollo Global Management, LLC
GoldenTree Asset Management, LP
Kayne Anderson Capital Advisors, LP
State Street Global Advisors
TOBAM
Waterfall Asset Management, LLC

### Foreign Common and Preferred Stock

Ares Management, LLC
Ashmore Investment Management Limited
GoldenTree Asset Management, LP
Gramercy Funds Management, LLC
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
Fillmore Capital Partners, LLC
Fortress Investment Group, LLC
Invesco Real Estate Management
Kayne Anderson Capital Advisors, LP
Morgan Stanley Real Estate Fund
Oaktree Capital Management, LP
Partners Group
PGIM Fund Management Limited
PGIM Real Estate
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 Global Management, LLC
Ares Management, LLC
Aurora Capital Group
Beach Point Capital Management, LP
Birch Grove Capital, LP
The Catalyst Capital Group, Inc.
Crescent Capital Group, LP
Crestline Management, LP
Corrum Capital
Declaration Management & Research, LLC
Domain Timber Advisors, 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 Advisors, LP
King Street Capital Management, LLC
Lexington Partners
MacKay Shields, LLC
Mondrian Investment Partners, Ltd
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
Tricadia Capital Management, LLC
Waterfall Asset Management, LLC
Zais Group, LLC

### Foreign Alternatives

Aberdeen Asset Management, PLC
Apollo Global Management, LLC
Alcentra Limited
Cairn Capital Limited
GoldenTree Asset Management, LP
Gramercy Funds Management, LLC
Halcyon Diversified Management, LLC
Marathon Asset Management, LP
Partners Group
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

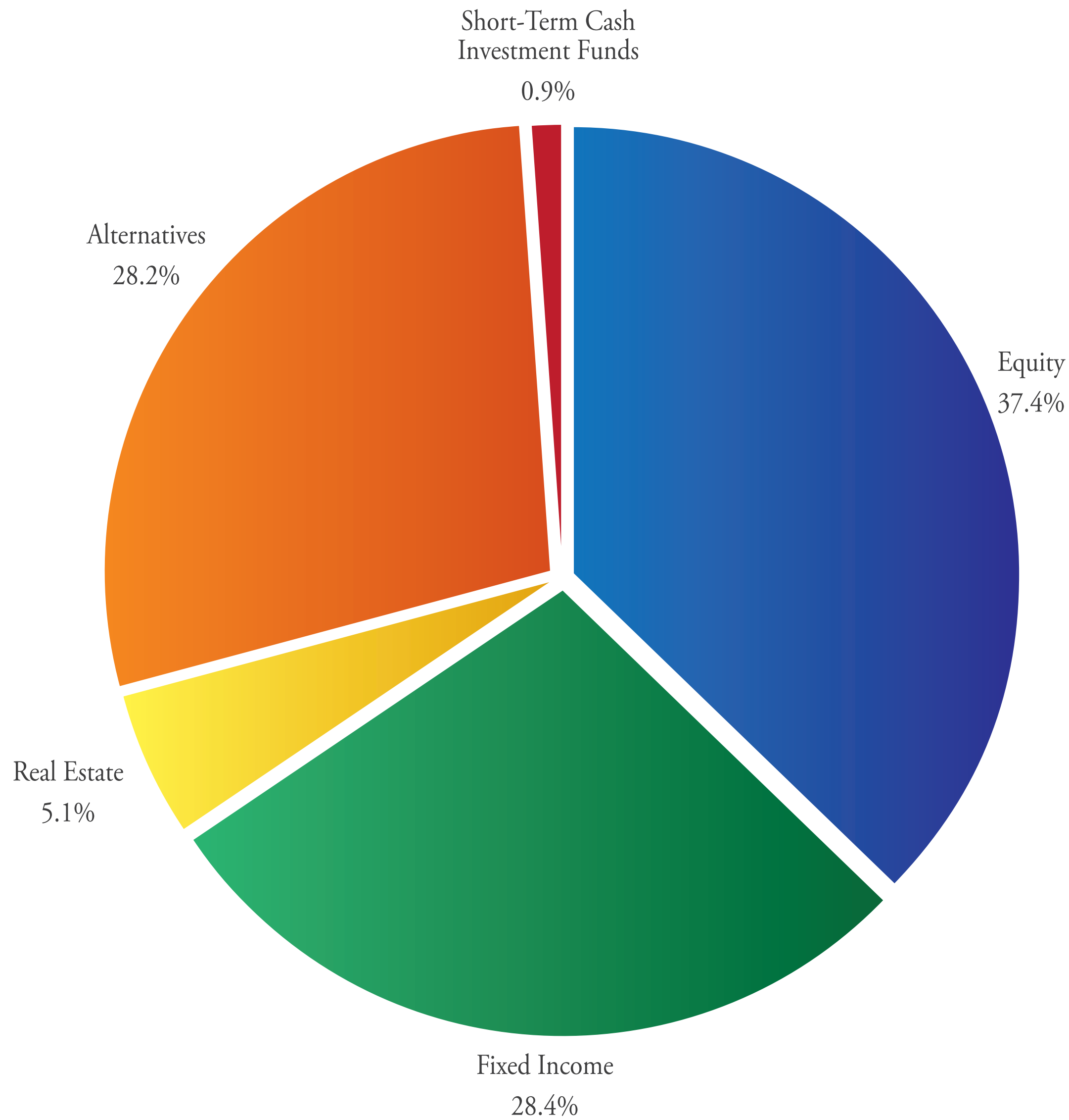
*As of June 30, 2018*

| | Current Year 2018 | Annualized 3-year | Annualized 5-year |
|---|---|---|---|
| **Total Portfolio** | 8.76% | 6.91% | 7.30% |
| SB Policy Benchmark | 6.77% | 6.02% | 6.49% |
| | | | |
| **Cash Equivalents** | 0.94% | (0.24%) | (3.89%) |
| 91 Day T-Bill Benchmark | 1.36% | 0.68% | 0.42% |
| | | | |
| **Equity Segment** | | | |
| Domestic Equity | 5.95% | 3.45% | 0.79% |
| Russell 3000 Benchmark | 14.78% | 11.58% | 13.29% |
| Emerging Markets Equity | 9.76% | 3.63% | 2.68% |
| MSCI Emerging Markets Benchmark | 8.20% | 5.60% | 5.01% |
| International Equity | 8.04% | 3.62% | 4.54% |
| MSCI EAFE Benchmark | 6.84% | 4.90% | 6.44% |
| | | | |
| **Fixed Income Segment** | | | |
| Domestic Fixed Income | 9.13% | 6.79% | 7.82% |
| BofAML High Yield Master II Benchmark | 2.53% | 5.55% | 5.51% |
| Global and Emerging Market Fixed Income | 6.08% | 7.85% | 6.49% |
| SBCERA Custom BC Global Benchmark | 2.78% | 3.23% | 0.88% |
| | | | |
| **Real Asset Segment** | | | |
| Real Estate | 8.45% | 9.05% | 9.70% |
| NCREIF Property Benchmark | 7.12% | 8.72% | 10.00% |
| Timber | 1.52% | (0.05%) | 2.06% |
| NCREIF Timberland Benchmark | 3.79% | 3.44% | 6.10% |
| Infrastructure | 10.06% | 3.13% | 1.31% |
| CPI + 600BPS Benchmark | 9.03% | 7.93% | 7.62% |
| Commodities | 12.77% | 2.73% | 2.18% |
| Bloomberg Commodity Benchmark | 7.35% | (4.54%) | (6.40%) |
| | | | |
| **Other Alternative Segment** | | | |
| Private Equity/Venture Capital | 14.55% | 12.07% | 13.38% |
| State Street Private Equity Benchmark | 15.88% | 11.27% | 11.94% |
| Alpha Pool | 6.05% | 4.65% | 4.98% |
| HFRI Fund of Funds Composite Benchmark | 5.49% | 2.05% | 3.53% |

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

# Asset Allocation

*As of June 30, 2018*

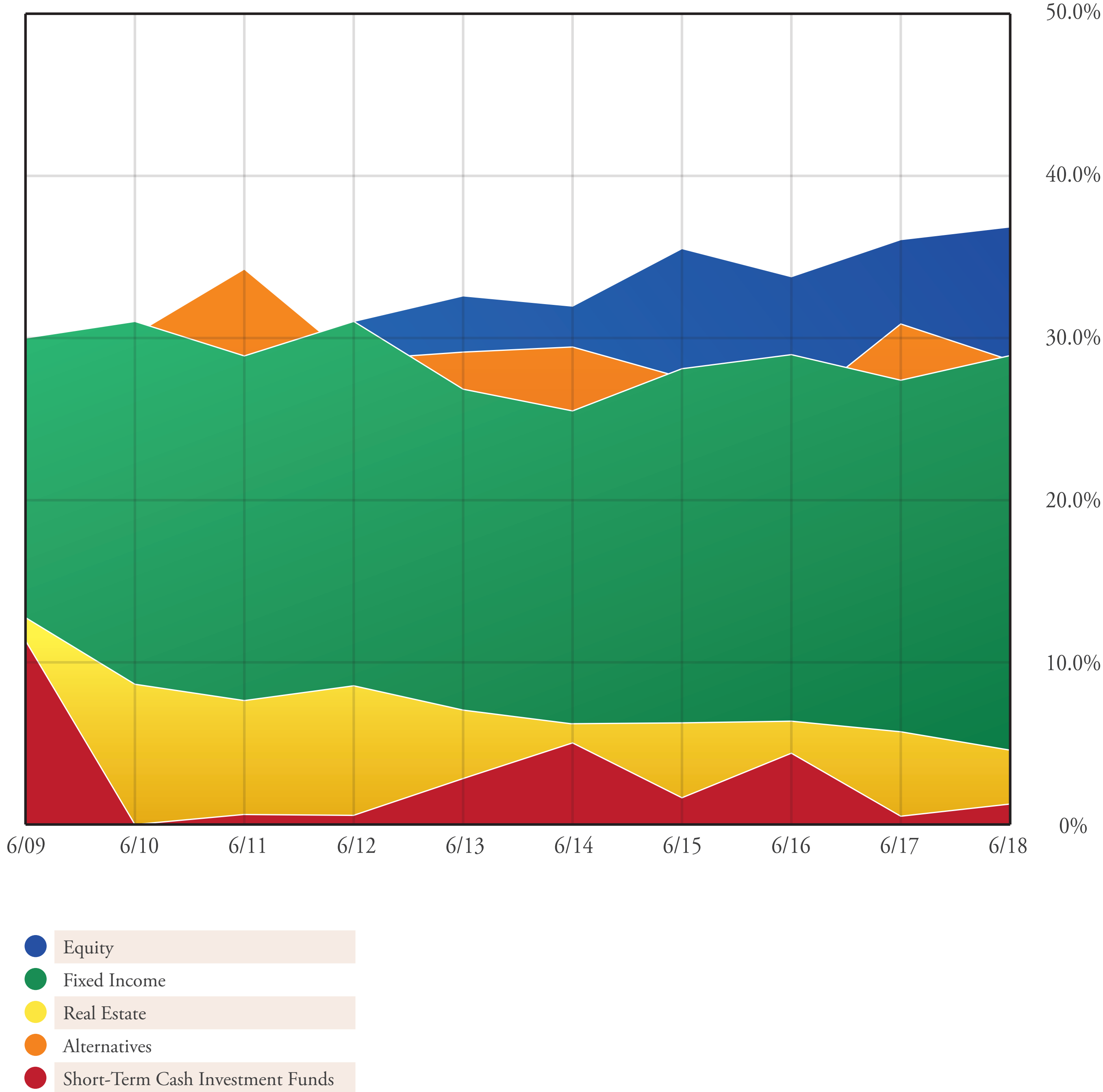



| | |
|---|---|
| Equity | 37.4% |
| Fixed Income | 28.4% |
| Real Estate | 5.1% |
| Alternatives | 28.2% |
| Short-Term Cash Investment Funds | 0.9% |
| **TOTAL** | **100.0%** |

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 107, for further information.

# Historical Asset Allocation

*June 2009 through June 2018*




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 107, for further information.

# Target vs. Actual Asset Allocation Percentages

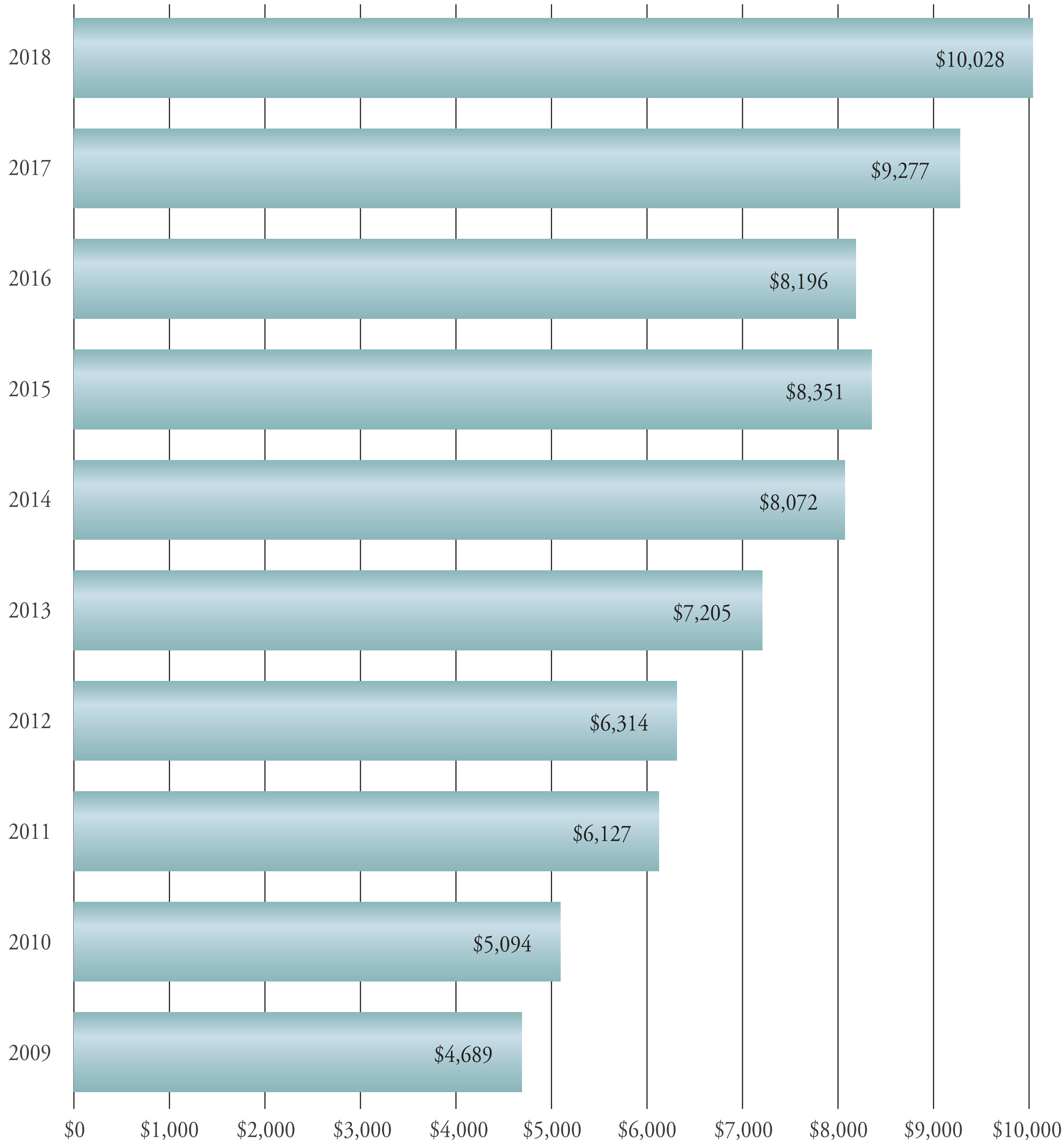
*As of June 30, 2018*

| | Actual | Target | Target Ranges: Minimum | Target Ranges: Maximum |
|---|---|---|---|---|
| Domestic Equity | 17.9% | 13.0% | 8.0% | 18.0% |
| International Equity | 19.5% | 15.0% | 10.0% | 20.0% |
| Domestic Fixed Income | 15.1% | 15.0% | 10.0% | 20.0% |
| Global Fixed Income | 13.3% | 18.0% | 13.0% | 23.0% |
| Private Equity | 12.5% | 16.0% | 6.0% | 21.0% |
| Absolute Return | 10.3% | 7.0% | 0.0% | 12.0% |
| Timber | 1.3% | 2.0% | 0.0% | 7.0% |
| Infrastructure | 2.1% | 1.0% | 0.0% | 6.0% |
| Commodities | 2.0% | 2.0% | (1.0%) | 7.0% |
| Real Estate | 5.1% | 9.0% | 0.0% | 14.0% |
| Short-Term Cash Investment Funds | 0.9% | 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 112.

# Fair Value Growth of Plan Assets Held for Investments

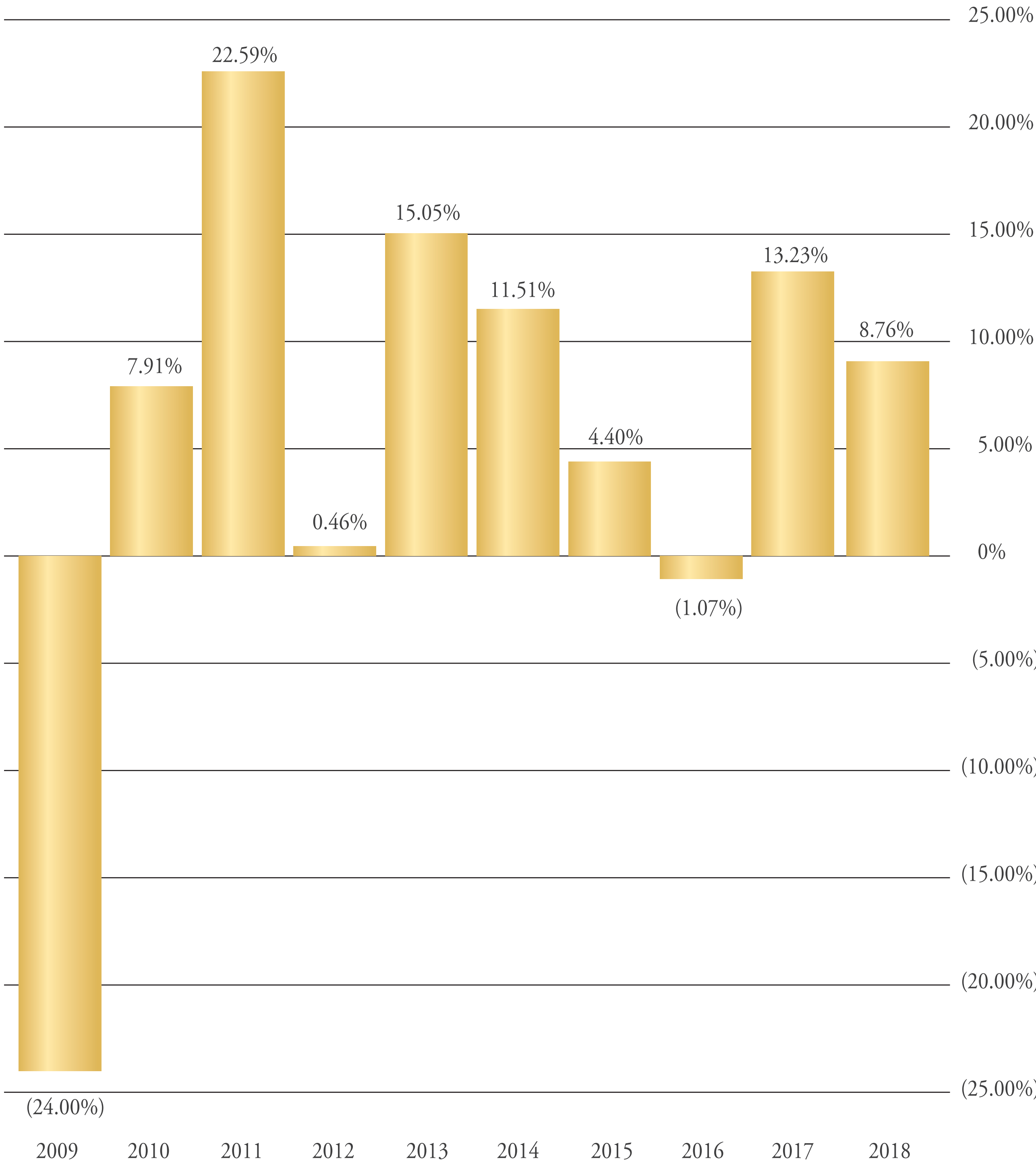
*For 10 Years Ended June 30, 2018*
*(Amounts in Millions)*




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, 2018, investments of cash collateral received on securities lending amount to $77.83 million.

# History of Investment Performance

*For 10 Years Ended June 30, 2018*
*(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, 2018*
*(Amounts in Thousands)*

## Largest Equity Holdings

*(By Fair Value)*

| Description | | Shares | Fair Value |
|---|---|---|---|
| 1. | Bawag Group AG | 1,106 | $ 50,691 |
| 2. | Sutherland Asset Management REIT | 2,043 | 33,194 |
| 3. | Frontera Energy Corp Common Stock | 1,789 | 26,013 |
| 4. | VICI Properties Inc REIT | 790 | 16,306 |
| 5. | LTBI Holdings Common Stock | 9,023 | 14,594 |
| 6. | Enterprise Products Partners MLP | 479 | 13,246 |
| 7. | Williams Partners LP MLP | 315 | 12,786 |
| 8. | Targa Resources Corp Common Stock | 254 | 12,570 |
| 9. | Western Gas Partners LP MLP | 256 | 12,393 |
| 10. | MPLX LP MLP | 362 | 12,348 |
| **TOTAL OF LARGEST EQUITY HOLDINGS** | | | **$ 204,141** |
| | | | |
| **TOTAL EQUITY HOLDINGS** | | | **$ 2,140,528** |

## Largest Fixed Income Holdings

*(By Fair Value)*

| Description | | Par | Fair Value |
|---|---|---|---|
| 1. | Treasury Bill 11/18 | $ 73,400 | $ 72,910 |
| 2. | Apollo Craft Mid Cap Trade | 25,000 | 26,120 |
| 3. | Craft Ltd 2017 1A CLN 144A | 20,000 | 20,036 |
| 4. | Treasury Bill 11/18 | 19,400 | 19,236 |
| 5. | Digicel Group Ltd Sr Unsecured | 28,950 | 18,962 |
| 6. | Banro Corporation Sr Secured | 1,701 | 15,185 |
| 7. | Peruvian Agrarian Land Reform | 4 | 14,258 |
| 8. | EB Holdings EUR PIK Term Loan | 30,411 | 12,988 |
| 9. | Treasury Bill 10/18 | 12,000 | 11,940 |
| 10. | Zais CLO 2 Ltd | 16,725 | 10,956 |
| **TOTAL OF LARGEST FIXED INCOME HOLDINGS** | | | **$ 222,591** |
| | | | |
| **TOTAL FIXED INCOME HOLDINGS** | | | **$ 564,147** |

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, 2018*
*(Amounts in Thousands)*

## Fees

| Type of Fees | Assets Under Management at Fair Value | Fees[1] |
|---|---|---|
| **Investment Managers' Advisement Fees** | | |
| Equity Managers | $ 2,140,528 | $ 7,770 |
| Fixed Income Managers | 564,147 | 6,118 |
| Real Estate Managers | 414,468 | 7,912 |
| Alternative Managers | 5,970,504 | 78,449 |
| Short-Term Cash & Securities Lending Collateral | 1,016,024 | - |
| **TOTAL INVESTMENT MANAGERS' ADVISEMENT FEES** | **$ 10,105,671** | **100,249** |
| | | |
| **Other Investment Advisement Fees** | | |
| Consultant Fees | | 2,423 |
| Custodian Fees | | 708 |
| Legal Services | | 154 |
| **TOTAL INVESTMENT ADVISEMENT FEES** | | **103,534** |
| **SECURITIES LENDING FEES** | | **1,131** |
| **TOTAL FEES** | | **$ 104,665** |

## Commissions

| Brokerage Firm | Total Shares Traded (Actual Shares) | Commissions Per Share (Actual Dollars) | Total Commissions | % of Total Commissions[3] |
|---|---|---|---|---|
| Morgan Stanley | 373,572 | $ 2.33658 | $ 873 | 59.43% |
| Pershing LLC | 2,152,521 | 0.03338 | 72 | 4.90% |
| The Hongkong and Shanghai Bank | 211,350 | 0.29428 | 62 | 4.22% |
| Merrill Lynch, Pierce, Fenner & Smith Inc. | 1,923,585 | 0.02620 | 50 | 3.40% |
| Wells Fargo Securities LLC | 1,236,695 | 0.03520 | 44 | 3.00% |
| National Financial Services Corporation | 1,433,311 | 0.02604 | 37 | 2.52% |
| Barclays Capital Inc. | 970,791 | 0.03552 | 34 | 2.31% |
| Goldman Sachs + Co | 1,252,637 | 0.02480 | 31 | 2.11% |
| J.P. Morgan Clearing Corp. | 704,454 | 0.04255 | 30 | 2.04% |
| Other[2] | 73,734,742 | Various[2] | 236 | 16.07% |
| **TOTAL** | **83,993,658** | | **$ 1,469** | **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 57 additional firms, each with less than 2.00% of total commissions. The average commission per share is 0.00320.
(3) Results are adjusted for rounding.
Note: SBCERA has commission recapture arrangements with Russell Investment Group.

# Investment Summary

*As of June 30, 2018*
*(Amounts in Thousands)*

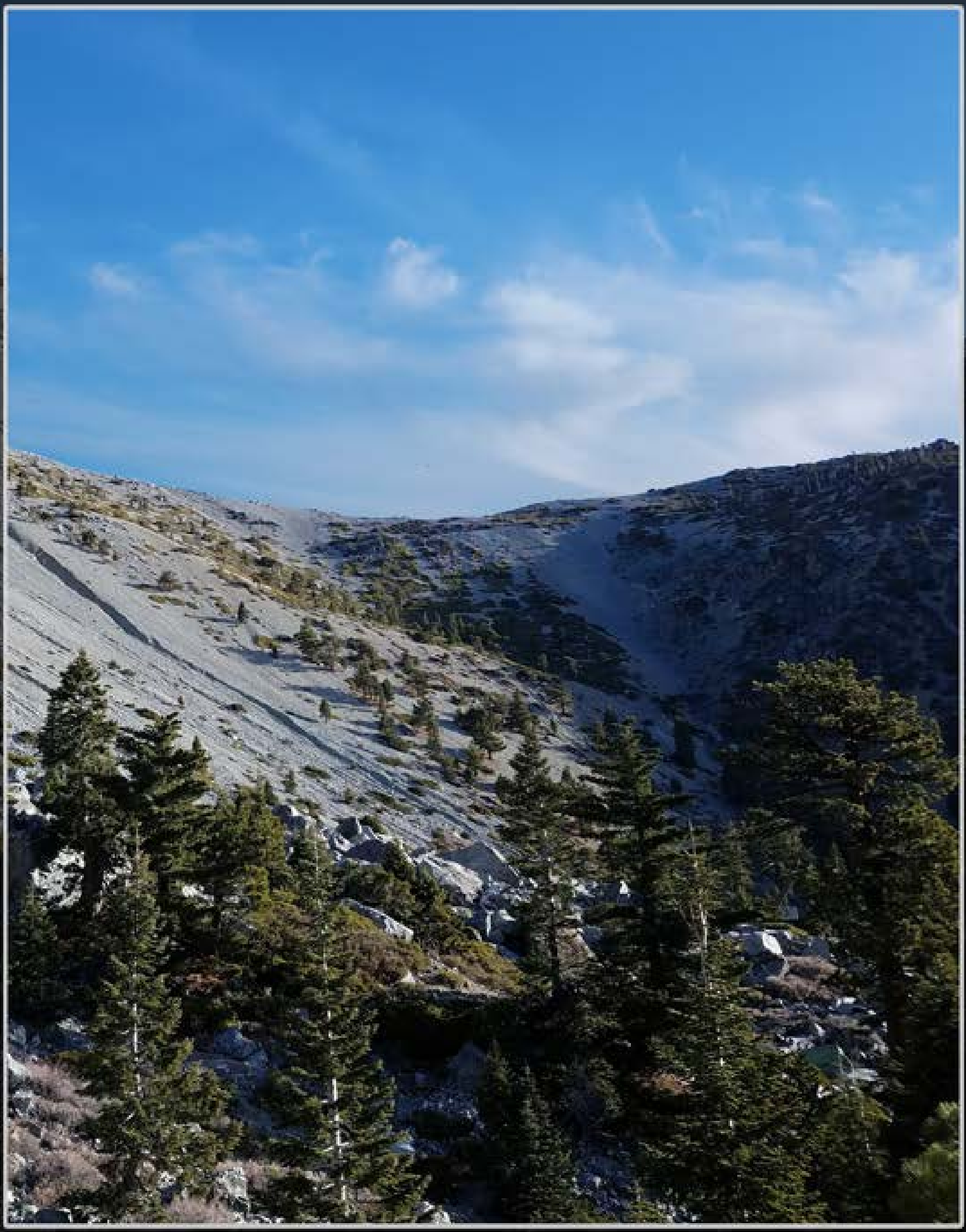
| Type of Investment | Fair Value | Percent of Total Fair Value |
|---|---|---|
| Short-Term Cash Investment Funds | $ 938,199 | 9.28% |
| Emerging Market Debt | 58,496 | 0.58% |
| United States Government Obligations and Other Municipals | 164,641 | 1.63% |
| Domestic Bonds | 292,613 | 2.90% |
| Foreign Bonds | 48,397 | 0.48% |
| Domestic Common and Preferred Stock | 1,301,076 | 12.87% |
| Foreign Common and Preferred Stock | 839,452 | 8.31% |
| Investments of Cash Collateral Received on Securities Lending | 77,825 | 0.77% |
| Real Estate | 414,468 | 4.10% |
| Domestic Alternatives | 3,992,659 | 39.51% |
| Foreign Alternatives | 1,977,845 | 19.57% |
| **TOTAL INVESTMENTS, AT FAIR VALUE** | **$ 10,105,671** | **100.00%** |

section

4.0

# ACTUARIAL

*(Unaudited)*



## Baldy Bowl Trail

*Mt. San Antonio, San Gabriel Mountains*

*(Elevation Gain: 1,300 feet)*

# Section 4.0
## ACTUARIAL
*(Unaudited)*

## Baldy Bowl Trail
*(Mt. San Antonio, San Gabriel Mountains)*

Mt. San Antonio, also known as "Mt. Baldy," is the highest peak of the San Gabriel Mountains. On a clear day, hikers can see Catalina Island from *Top of the Notch* restaurant, accessible via the lower portion of Baldy Bowl Trail. For those not wanting to hike to see the great views, the ski lifts offer a convenient alternative.

Once at the restaurant, hikers can choose to hike the daunting Devil's Backbone Trail to reach the Baldy summit at 10,064 feet.

Some SBCERA Members are eligible to take a "ski lift" to retirement. For those with past work history for an SBCERA-covered employer, members may be able to purchase service credit that brings them closer to retirement eligibility.

Source:
https://mtbaldyresort.com

# Actuary Certification Letter

Segal Consulting

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

November 27, 2018

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, 2018 Actuarial Valuation for Funding Purposes**

Dear Members of the Board:

Segal Consulting (Segal) prepared the June 30, 2018 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, 2018 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 valuation after June 30, 2002 is amortized over its own declining (or closed) 20-year period.

Board of Retirement
San Bernardino County Employees' Retirement Association
November 27, 2018

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, 2018 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, 2018 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, 2018 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
- Schedule of Funded Liabilities by Type
- 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

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Board of Retirement
San Bernardino County Employees' Retirement Association
November 27, 2018

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, 2018 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, 2018 valuation, the ratio of the valuation assets to actuarial accrued liabilities (funded percentage) increased from 78.69% to 79.50%. The average employer contribution rate has increased from 30.91% of payroll to 31.09% of payroll, while the average member contribution rate has decreased from 11.32% of payroll to 11.21% of payroll.

Under the asset smoothing method, the total unrecognized investment gain is $46 million as of June 30, 2018. This investment gain will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years. The deferred gain of $46 million represents about 0.5% of the market value of assets as of June 30, 2018. Unless offset by future investment losses or other unfavorable experience, the recognition of the $46 million market gain 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 gains were recognized immediately in the actuarial value of assets, the funded ratio would increase from 79.50% to 79.87%.

- If the deferred gains were recognized immediately in the actuarial value of assets, the average employer contribution rate would decrease from 31.09% to 30.87% 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 | John Monroe, ASA, MAAA, EA |
| Senior Vice President and Actuary | Vice President and Actuary |

AW/bbf

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# Schedule of Funding Progress

*For the Years Ended June 30, 2009 through 2018*
*(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 Covered Payroll | [(b-a)/c] UAAL as a Percentage of Projected Total Compensation |
|---|---|---|---|---|---|---|
| 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% |
| 6/30/2017[5] | 9,385,977 | 11,928,310 | 2,542,333 | 78.69% | 1,406,470 | 180.76% |
| 6/30/2018[5] | 10,020,863 | 12,604,942 | 2,584,079 | 79.50% | 1,477,131 | 174.94% |

(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 liabilities 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.
(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, the City of Big Bear Lake, and Big Bear Fire Authority.
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, 2018*

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, 2018 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 129 |
| 5. Asset Valuation | Smoothed market (five-year average) valuation; see Development of Actuarial Value of Assets on page 120 which shows the development of the assets. As of June 30, 2018, the net unrecognized deferred gain is $46.13 million. |
| 6. Gains and Losses | Gains and losses are reflected in the UAAL, and are funded over the period described above. |
| 7. Spouses and Dependents | 65% of male members and 55% of female members are 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 130 |
| 9. Years of Life Expectancy After Retirement | As shown in Table on page 132 |
| 10. Years of Life Expectancy After Disability | As shown in Table on page 132 |
| 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 is 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, 2018 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, 2018.

# Development of Actuarial Value of Assets

*As of June 30, 2018*
*(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.

| | | Original Amount | Unrecognized Return | |
|---|---|---|---|---|
| **1.** | **Fair value of assets** | | | **$ 10,066,990** |
| **2.** | **Calculation of unrecognized return** | | | |
| | a) Year ended June 30, 2018[1] | $ 124,860 | $ 99,888 | |
| | b) Year ended June 30, 2017[1] | 483,677 | 290,206 | |
| | c) Year ended June 30, 2016[1] | (700,602) | (280,241) | |
| | d) Year ended June 30, 2015[1] | (318,629) | (63,726) | |
| | **e) TOTAL UNRECOGNIZED RETURN[2]** | | | **46,127** |
| **3.** | **Actuarial value of assets (1) - (2e)** | | | **10,020,863 [4]** |
| **4.** | **Actuarial value as a percentage of fair value (3) / (1)** | | | 99.5% |
| **5.** | **Non-valuation reserves** | | | |
| | a) Burial allowance reserve | | | 629 |
| | **b) TOTAL** | | | **629** |
| **6.** | **PRELIMINARY VALUATION VALUE OF ASSETS (3) - (5b)** | | | **$ 10,020,234 [3]** |
| **7.** | **VALUATION VALUE OF ASSETS[4]** | | | **$ 10,036,803** |

(1) Recognition at 20% per year over five years.
(2) Deferred (unrecognized) return amount as of June 30, 2018 recognized in each of the next four years as follows:

| | |
|---|---|
| (a) Amount recognized during 2018/2019 | $ (82,139) |
| (b) Amount recognized during 2019/2020 | (18,413) |
| (c) Amount recognized during 2020/2021 | 121,707 |
| (d) Amount recognized during 2021/2022 | 24,972 |
| Total | $ 46,127 |

(3) Results are adjusted for rounding.
(4) Includes $16.6 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.

# Schedule of Active Member Valuation Data

*For the Years Ended June 30, 2009 through 2018*

| Valuation Date | Number of Participating Employers[1] | Number of Active Members | Annual Payroll | Annual Average Payroll | % Increase/(Decrease) in Average Payroll |
|---|---|---|---|---|---|
| **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%** |
| **6/30/2018** | | | | | |
| General | 16 | 18,798 | $ 1,217,602,722 | $ 64,773 | 3.07% |
| Safety | 4 | 2,667 | 259,528,542 | 97,311 | 2.53% |
| **TOTAL** | **18** | **21,465** | **$ 1,477,131,264** | **$ 68,816** | **3.29%** |

(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 Retirees and Beneficiaries

*For the Years Ended June 30, 2009 through 2018*

| | Number of Members | | | | 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 | Average Monthly Allowance[2] | Average Annual Allowance[2] |
| 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 |
| 7/17 to 6/18 | 12,179 | 850 | (313) | 12,716 | 505,462,000 | 49,124,000 | (9,688,000) | 544,898,000 | 7.80% | 3,571 | 42,851 |

| | Retired 7/1/17 to 6/30/18 | | Total Retirees | |
|---|---|---|---|---|
| | General | Safety | General | Safety |
| Average age at retirement | 61.82 | 53.44 | 59.01 | 50.83 |
| Average years of credited service at retirement | 22.51 | 23.86 | 18.85 | 21.30 |
| Average final average salary | $ 6,266 | $ 9,269 | $ 5,467 | $ 7,262 |
| Average monthly benefit | $ 4,292 | $ 7,543 | $ 3,375 | $ 6,189 |

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

# Schedule of Funded Liabilities by Type

*For the Years Ended June 30, 2009 through 2018*
*(Amounts in Thousands)*

| | Aggregate Accrued Liabilities for | | | | Portion of Accrued Liability Covered by Valuation Assets | | |
|---|---|---|---|---|---|---|---|
| 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) |
| 6/30/2009 | $ 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% |
| 6/30/2018 | 1,151,640 | 7,211,256 | 4,242,046 | 10,020,863 | 100% | 100% | 39.08% |

Note: In prior years, this schedule was referred to as Solvency Test.

# Summary of Major Plan Provisions

*As of June 30, 2018*

| | TIER 1 *(SBCERA membership date is prior to January 1, 2013)* | TIER 2 *(SBCERA membership date is on or after January 1, 2013)* |
|---|---|---|
| ***1. Eligibility*** | First day of employment[1] | First day of employment[1] |
| ***2. Definition of Salary*** | Highest 12 consecutive months of compensation earnable | Highest 36 consecutive months of pensionable compensation |
| ***3. Service Retirement*** | **Normal Retirement Age**<br>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**<br>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 |
| | **Early Retirement**<br>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**<br>Age 70 (regardless of service credit) or age 52 and 5 years of service credit for General members or age 50 and 5 years of service credit for Safety members |
| | **Benefit**<br>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**<br>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**<br>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**<br>Reduced for retirement before age 67 for General members (age 57 for Safety members) |
| ***4. Disability Retirement*** | **Non-Service Connected**<br>*(must have five years of service credit to be eligible)*<br>*Members entering on or before December 31, 1980:*<br>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)<br>*Members entering on or after January 1, 1981:*<br>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) | **Non-Service Connected**<br>*(must have five years of service credit to be eligible)*<br>*Members entering on or after January 1, 2013:*<br>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 Connected**<br>Greater of 50% of final average compensation or service retirement benefit (if eligible) | **Service Connected**<br>Greater of 50% of final average compensation or service 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: SBCERA is a cost-sharing multiple-employer defined pension plan. Refer to Note 1 - Significant Provisions of the Plan, for further information.

For funding and accounting purposes, SBCERA uses the same actuarial assumptions, except 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, 2018*
*(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]* | **Fewer Than Five Years of Service Credit** Refund of contributions plus 1/12 of compensation per year of service credit up to 50% of annual compensation<br>**Five 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<br>**Optional Death Allowance** *(If eligible for disability or service retirement):*<br>Monthly payment equal to 60% of member's accrued allowance<br>**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<br>**If Service Connected** Monthly payment equal to 50% of final monthly compensation<br>**If Service Connected and Safety Member** Additional lump sum payment of one-year compensation plus a monthly benefit for minor children | **Fewer Than Five Years of Service Credit** Refund of contributions plus 1/12 of compensation per year of service credit up to 50% of annual compensation<br>**Five 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<br>**Optional Death Allowance** *(If eligible for disability or service retirement):*<br>Monthly payment equal to 60% of member's accrued allowance<br>**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<br>**If Service Connected** Monthly payment equal to 50% of final monthly compensation<br>**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)<br>**Service Retirement or Non-Service Disability[2]** Monthly payment equal to 60% of member's allowance<br>**Service Disability[2]** Monthly payment equal to 100% of member's allowance | $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)<br>**Service Retirement or Non-Service Disability[2]** Monthly payment equal to 60% of member's allowance<br>**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<br>Must leave contributions on deposit | After five years of service<br>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<br>A non-compounding 7% increase is payable at retirement for members hired on or before August 18, 1975 | "Automatic" not to exceed 2% compounding COLA |
| *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) 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, 2009 through 2018*
*(Amounts in Thousands)*

The following are the gains and losses in accrued liabilities during the years ended June 30, 2009 through 2018 resulting from the differences between assumed experience and actual experience.

| | Type of Activity | | | | |
|---|---|---|---|---|---|
| Year Ended | Pay Increases[1] | Investment Income[2] | Death After Retirement[3] | Other[4] | Composite Gain/(Loss) During the Year |
| 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)[5] | 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) |
| 6/30/2018 Gain/(Loss)[5] | 28,311 | (25,827) | (17,763) | (111,271) | (126,550) |

(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.
(5) The June 30, 2013 and June 30, 2018 actuarial valuations, prepared by SBCERA's independent actuary, Segal Consulting, were audited by independent actuaries, Milliman and Cheiron, respectively. The valuations 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.

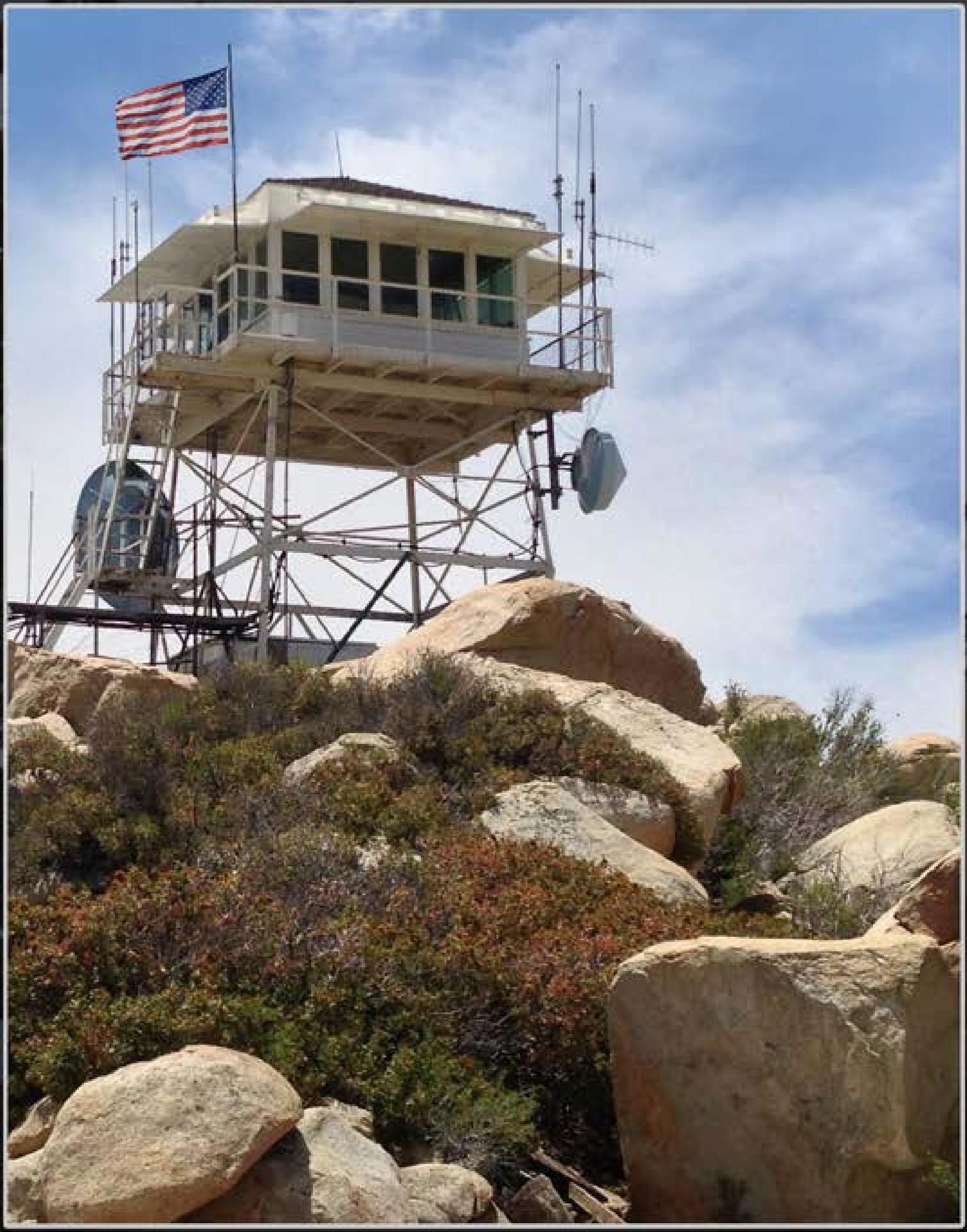
section

# 4.1

# ACTUARIAL

## *Supporting Schedules*

*(Unaudited)*



Keller Peak

*Near Running Springs*

*(Elevation Gain: 2,267 feet)*

# Section 4.1
## ACTUARIAL
*Supporting Schedules*
*(Unaudited)*

## Keller Peak
*(Near Running Springs)*

Serving as one of the best lookout points in the region, Keller Peak allows hikers to appreciate an expansive view of the Inland Empire.

Like several other trails featured in this CAFR, the trail can be formidable, and it is wise to hike in a group should one sustain an injury.

SBCERA provides a Special Durable Power of Attorney (POA) form for members who wish to designate a trustworthy person to manage their SBCERA affairs should they become incapacitated. The POA allows members to have the peace of mind knowing that important SBCERA tasks and activities can be performed should a debilitating injury or illness occur.

Source:
https://www.alltrails.com/trail/us/california/keller-peak

# Ratio of Current Compensation-to-Compensation Anticipated at Retirement

*As of June 30, 2018*

| 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, 2018*

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, 2018*
*(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.

| Age | Death[1] | Disability[2] | Tier 1 Service Retirement | Tier 2 Service Retirement |
|---|---|---|---|---|
| **General Members – 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 Members – Female** | | | | |
| 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 Members – 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 Members – Female** | | | | |
| 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.

| | General Members | | Safety 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 |

(1) 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.
(2) 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. 100% of Safety member disabilities are assumed to be service connected (duty) 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, 2018*
*(Amounts in Years)*

## General Service Retirees[1]

| Age | Male[2] | Female |
|---|---|---|
| 50 | 32.67 | 36.77 |
| 60 | 23.66 | 27.33 |
| 70 | 15.56 | 18.47 |
| 80 | 8.73 | 10.84 |

## Safety Service Retirees[1]

| Age | Male[3] | Female[3] |
|---|---|---|
| 50 | 34.47 | 37.67 |
| 60 | 25.37 | 28.23 |
| 70 | 17.09 | 19.29 |
| 80 | 9.93 | 11.50 |

## General Disabled Retirees[1]

| Age | Male[4] | Female[4] |
|---|---|---|
| 20 | 54.41 | 58.28 |
| 30 | 45.45 | 49.06 |
| 40 | 36.49 | 39.79 |
| 50 | 27.29 | 30.27 |
| 60 | 18.63 | 21.09 |
| 70 | 11.29 | 13.10 |
| 80 | 5.68 | 6.75 |

## Safety Disabled Retirees[1]

| Age | Male[3] | Female[3] |
|---|---|---|
| 20 | 60.87 | 64.91 |
| 30 | 52.17 | 55.95 |
| 40 | 43.53 | 46.98 |
| 50 | 34.47 | 37.67 |
| 60 | 25.37 | 28.23 |
| 70 | 17.09 | 19.29 |
| 80 | 9.93 | 11.50 |

(1) The expectation of life was determined by SBCERA's independent actuary, Segal Consulting, using the Headcount-Weighted RP-2014 Healthy Annuitant Mortality Tables, projected generationally with the two-dimensional MP-2016 projection scale, for the above ages as of 2018.
(2) The table is set forward one year.
(3) The table is set back one year.
(4) The table is set forward seven years.

# History of Total Employer Contribution Rates

*For Actuarial Valuation Years Ended June 30, 2009 through 2018*

| | Valuation Date - 6/30/2009 | Valuation Date - 6/30/2010 | Valuation Date - 6/30/2011 | Valuation Date - 6/30/2012 |
|---|---|---|---|---|
| **County General** | | | | |
| Normal Cost | 9.25% | 9.27% | 9.41% | 9.94% |
| UAAL | 3.07% | 5.23% | 7.71% | 9.02% |
| **Total** | **12.32%** | **14.50%** | **17.12%** | **18.96%** |
| **County Safety** | | | | |
| Normal Cost | 19.21% | 19.16% | 19.24% | 19.73% |
| UAAL | 7.61% | 11.73% | 17.15% | 20.26% |
| **Total** | **26.82%** | **30.89%** | **36.39%** | **39.99%** |
| **SCAQMD** | | | | |
| Normal Cost | 9.72% | 9.72% | 9.98% | 9.87% |
| UAAL | 6.36% | 9.61% | 13.17% | 15.35% |
| **Total** | **16.08%** | **19.33%** | **23.15%** | **25.22%** |
| **Superior Court** | | | | |
| Normal Cost | 9.25% | 9.27% | 9.41% | 9.94% |
| UAAL | 6.29% | 7.61% | 9.15% | 9.93% |
| **Total** | **15.54%** | **16.88%** | **18.56%** | **19.87%** |
| **Other General** | | | | |
| Normal Cost | 10.58% | 10.57% | 10.66% | 11.37% |
| UAAL | 9.81% | 11.81% | 15.11% | 16.32% |
| **Total** | **20.39%** | **22.38%** | **25.77%** | **27.69%** |
| **Other Safety** | | | | |
| Normal Cost | 20.22% | 20.24% | 20.35% | 19.59% |
| UAAL | 24.48% | 26.67% | 31.38% | 38.23% |
| **Total** | **44.70%** | **46.91%** | **51.73%** | **57.82%** |

Note: See Note on page 135, for further information.

# History of Total Employer Contribution Rates

*For Actuarial Valuation Years Ended June 30, 2009 through 2018*

*(Continued)*

| Valuation Date - 6/30/2013 | |
|---|---|
| **County General - Tier 1** | |
| Normal Cost | 10.10% |
| UAAL | 10.14% |
| **Total** | **20.24%** |
| **County General - Tier 2** | |
| Normal Cost | 7.88% |
| UAAL | 10.14% |
| **Total** | **18.02%** |
| **County Safety - Tier 1** | |
| Normal Cost | 19.88% |
| UAAL | 23.27% |
| **Total** | **43.15%** |
| **County Safety - Tier 2** | |
| Normal Cost | 13.75% |
| UAAL | 23.27% |
| **Total** | **37.02%** |
| **SCAQMD - Tier 1** | |
| Normal Cost | 10.23% |
| UAAL | 17.53% |
| **Total** | **27.76%** |
| **SCAQMD - Tier 2** | |
| Normal Cost | 7.83% |
| UAAL | 17.53% |
| **Total** | **25.36%** |
| **Superior Court - Tier 1** | |
| Normal Cost | 10.10% |
| UAAL | 11.65% |
| **Total** | **21.75%** |
| **Superior Court - Tier 2** | |
| Normal Cost | 7.88% |
| UAAL | 11.65% |
| **Total** | **19.53%** |
| **Other General - Tier 1** | |
| Normal Cost | 11.67% |
| UAAL | 18.24% |
| **Total** | **29.91%** |
| **Other General - Tier 2** | |
| Normal Cost | 7.20% |
| UAAL | 18.24% |
| **Total** | **25.44%** |
| **Other Safety - Tier 1** | |
| Normal Cost | 20.48% |
| UAAL | 39.17% |
| **Total** | **59.65%** |
| **Other Safety - Tier 2** | |
| Normal Cost | 11.56% |
| UAAL | 39.17% |
| **Total** | **50.73%** |

| Valuation Date - 6/30/2014 | |
|---|---|
| **County General - Tier 1** | |
| Normal Cost | 11.50% |
| UAAL | 10.99% |
| **Total** | **22.49%** |
| **County General - Tier 2** | |
| Normal Cost | 8.40% |
| UAAL | 10.99% |
| **Total** | **19.39%** |
| **County Safety - Tier 1** | |
| Normal Cost | 22.06% |
| UAAL | 27.03% |
| **Total** | **49.09%** |
| **County Safety - Tier 2** | |
| Normal Cost | 15.22% |
| UAAL | 27.03% |
| **Total** | **42.25%** |
| **SCAQMD - Tier 1** | |
| Normal Cost | 11.73% |
| UAAL | 18.46% |
| **Total** | **30.19%** |
| **SCAQMD - Tier 2** | |
| Normal Cost | 7.97% |
| UAAL | 18.46% |
| **Total** | **26.43%** |
| **Superior Court - Tier 1** | |
| Normal Cost | 11.50% |
| UAAL | 12.39% |
| **Total** | **23.89%** |
| **Superior Court - Tier 2** | |
| Normal Cost | 8.40% |
| UAAL | 12.39% |
| **Total** | **20.79%** |
| **Other General - Tier 1** | |
| Normal Cost | 12.83% |
| UAAL | 20.48% |
| **Total** | **33.31%** |
| **Other General - Tier 2** | |
| Normal Cost | 9.29% |
| UAAL | 20.48% |
| **Total** | **29.77%** |
| **Other Safety - Tier 1** | |
| Normal Cost | 23.22% |
| UAAL | 45.79% |
| **Total** | **69.01%** |
| **Other Safety - Tier 2** | |
| Normal Cost | 12.82% |
| UAAL | 45.79% |
| **Total** | **58.61%** |

| Valuation Date - 6/30/2015 | |
|---|---|
| **County General - Tier 1** | |
| Normal Cost | 11.50% |
| UAAL | 10.83% |
| **Total** | **22.33%** |
| **County General - Tier 2** | |
| Normal Cost | 8.37% |
| UAAL | 10.83% |
| **Total** | **19.20%** |
| **County Safety - Tier 1** | |
| Normal Cost | 22.10% |
| UAAL | 28.88% |
| **Total** | **50.98%** |
| **County Safety - Tier 2** | |
| Normal Cost | 14.03% |
| UAAL | 28.88% |
| **Total** | **42.91%** |
| **SCAQMD - Tier 1** | |
| Normal Cost | 11.69% |
| UAAL | 21.24% |
| **Total** | **32.93%** |
| **SCAQMD - Tier 2** | |
| Normal Cost | 7.66% |
| UAAL | 21.24% |
| **Total** | **28.90%** |
| **Superior Court - Tier 1** | |
| Normal Cost | 11.50% |
| UAAL | 12.40% |
| **Total** | **23.90%** |
| **Superior Court - Tier 2** | |
| Normal Cost | 8.37% |
| UAAL | 12.40% |
| **Total** | **20.77%** |
| **Other General - Tier 1** | |
| Normal Cost | 12.88% |
| UAAL | 20.17% |
| **Total** | **33.05%** |
| **Other General - Tier 2** | |
| Normal Cost | 9.33% |
| UAAL | 20.17% |
| **Total** | **29.50%** |
| **Other Safety - Tier 1** | |
| Normal Cost | 22.35% |
| UAAL | 49.96% |
| **Total** | **72.31%** |
| **Other Safety - Tier 2** | |
| Normal Cost | 13.21% |
| UAAL | 49.96% |
| **Total** | **63.17%** |

| Valuation Date - 6/30/2016 | |
|---|---|
| **County General - Tier 1** | |
| Normal Cost | 11.50% |
| UAAL | 10.91% |
| **Total** | **22.41%** |
| **County General - Tier 2** | |
| Normal Cost | 8.45% |
| UAAL | 10.91% |
| **Total** | **19.36%** |
| **County Safety - Tier 1** | |
| Normal Cost | 22.14% |
| UAAL | 28.06% |
| **Total** | **50.20%** |
| **County Safety - Tier 2** | |
| Normal Cost | 15.15% |
| UAAL | 28.06% |
| **Total** | **43.21%** |
| **SCAQMD - Tier 1** | |
| Normal Cost | 11.68% |
| UAAL | 23.25% |
| **Total** | **34.93%** |
| **SCAQMD- Tier 2** | |
| Normal Cost | 7.66% |
| UAAL | 23.25% |
| **Total** | **30.91%** |
| **Superior Court - Tier 1** | |
| Normal Cost | 11.50% |
| UAAL | 13.20% |
| **Total** | **24.70%** |
| **Superior Court - Tier 2** | |
| Normal Cost | 8.45% |
| UAAL | 13.20% |
| **Total** | **21.65%** |
| **Other General - Tier 1** | |
| Normal Cost | 13.18% |
| UAAL | 21.35% |
| **Total** | **34.53%** |
| **Other General - Tier 2** | |
| Normal Cost | 8.74% |
| UAAL | 21.35% |
| **Total** | **30.09%** |
| **Other Safety - Tier 1** | |
| Normal Cost | 22.52% |
| UAAL | 60.67% |
| **Total** | **83.19%** |
| **Other Safety - Tier 2** | |
| Normal Cost | 13.06% |
| UAAL | 60.67% |
| **Total** | **73.73%** |

Note: See Note on page 135, for further information.

# History of Total Employer Contribution Rates

*For Actuarial Valuation Years Ended June 30, 2009 through 2018*

*(Continued)*

| | Valuation Date - 6/30/2017 | | Valuation Date - 6/30/2018 |
|---|---|---|---|
| **County General - Tier 1** | | **County General - Tier 1** | |
| Normal Cost | 11.70% | Normal Cost | 11.63% |
| UAAL | 13.57% | UAAL | 13.76% |
| **Total** | **25.27%** | **Total** | **25.39%** |
| **County General - Tier 2** | | **County General - Tier 2** | |
| Normal Cost | 9.16% | Normal Cost | 9.10% |
| UAAL | 13.57% | UAAL | 13.76% |
| **Total** | **22.73%** | **Total** | **22.86%** |
| **County Safety - Tier 1** | | **County Safety - Tier 1** | |
| Normal Cost | 21.81% | Normal Cost | 21.66% |
| UAAL | 33.76% | UAAL | 33.42% |
| **Total** | **55.57%** | **Total** | **55.08%** |
| **County Safety - Tier 2** | | **County Safety - Tier 2** | |
| Normal Cost | 16.54% | Normal Cost | 16.19% |
| UAAL | 33.76% | UAAL | 33.42% |
| **Total** | **50.30%** | **Total** | **49.61%** |
| **SCAQMD - Tier 1** | | **SCAQMD - Tier 1** | |
| Normal Cost | 11.84% | Normal Cost | 12.45% |
| UAAL | 28.50% | UAAL | 29.86% |
| **Total** | **40.34%** | **Total** | **42.31%** |
| **SCAQMD - Tier 2** | | **SCAQMD - Tier 2** | |
| Normal Cost | 8.39% | Normal Cost | 8.18% |
| UAAL | 28.50% | UAAL | 29.86% |
| **Total** | **36.89%** | **Total** | **38.04%** |
| **Superior Court - Tier 1** | | **Superior Court - Tier 1** | |
| Normal Cost | 11.70% | Normal Cost | 11.63% |
| UAAL | 16.47% | UAAL | 16.73% |
| **Total** | **28.17%** | **Total** | **28.36%** |
| **Superior Court - Tier 2** | | **Superior Court - Tier 2** | |
| Normal Cost | 9.16% | Normal Cost | 9.10% |
| UAAL | 16.47% | UAAL | 16.73% |
| **Total** | **25.63%** | **Total** | **25.83%** |
| **Other General - Tier 1** | | **Other General - Tier 1** | |
| Normal Cost | 11.78% | Normal Cost | 11.48% |
| UAAL | 25.25% | UAAL | 26.54% |
| **Total** | **37.03%** | **Total** | **38.02%** |
| **Other General - Tier 2** | | **Other General - Tier 2** | |
| Normal Cost | 9.05% | Normal Cost | 9.07% |
| UAAL | 25.25% | UAAL | 26.54% |
| **Total** | **34.30%** | **Total** | **35.61%** |

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, 2009 through 2018*
*For General and Safety Members (Dollars in Thousands)*

| | Added to Rolls | | Removed from Rolls | | Net Added/ Removed from Rolls | | Rolls- End of Year | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Year Ended** | **No.** | **Annual Allowances[1]** | **No.** | **Annual Allowances** | **No.** | **Annual Allowances** | **No.** | **Annual Allowances** | **% Increase in Annual Allowances** | **Average Annual Allowances (Actual Dollars)** |
| **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** | **690** | **$ 35,576** | **219** | **$ 4,309** | **471** | **$ 31,267** | **9,736** | **$ 339,823** | **10.13%** | **$ 34,904** |
| **6/30/2013** | | | | | | | | | | |
| 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** | **755** | **$ 38,851** | **318** | **$ 7,910** | **437** | **$ 30,941** | **10,173** | **$ 370,764** | **9.11%** | **$ 36,446** |
| **6/30/2014** | | | | | | | | | | |
| 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** | **756** | **$ 35,254** | **311** | **$ 7,407** | **445** | **$ 27,847** | **10,618** | **$ 398,611** | **7.51%** | **$ 37,541** |
| **6/30/2015** | | | | | | | | | | |
| 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 | 10,665 | 32 | 1,637 | 90 | 9,028 | 1,919 | 121,918 | 8.00% | 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 | $ 38,025 | 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** |
| **6/30/2018** | | | | | | | | | | |
| General | 720 | $ 37,229 | 289 | $ 8,619 | 431 | $ 28,610 | 10,593 | $ 401,816 | 7.67% | $ 37,932 |
| Safety | 130 | 11,895 | 24 | 1,069 | 106 | 10,826 | 2,123 | 143,082 | 8.19% | 67,396 |
| **TOTAL** | **850** | **$ 49,124** | **313** | **$ 9,688** | **537** | **$ 39,436** | **12,716** | **$ 544,898** | **7.80%** | **$ 42,851** |

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

section

5.0

# STATISTICAL

*(Unaudited)*

## Icehouse Canyon Trail

*Mt. San Antonio (Mt. Baldy)*

*(Elevation Gain: 2,555 feet)*

# Section 5.0
## STATISTICAL
*(Unaudited)*

## Icehouse Canyon
*(Mt. San Antonio, "Mt. Baldy")*

Icehouse Canyon Trail is a local favorite favorite for those seeking a forested escape. The approximately eight mile loop, featuring several old cabins, leads into Cucamonga Wilderness and ultimately to Timber Mountain and Telegraph Peak. It is common for hikers to find snow along the trail, and many will choose to bring dogs with them for a high-altitude exercise.

A must-have for this hike is a dependable backpack with water, food, a first-aid kit, and other necessary resources.

Retired Members of SBCERA also have important resources for a sustainable retirement such as newsletters, forms for updating personal information, and the convenience of having taxes withheld from their benefit payments. All members have online access to their retirement information through their MemberDirect account.

Source:
https://www.alltrails.com/trail/us/california/ice-house-canyon-trail

# Statistical Changes in Fiduciary Net Position

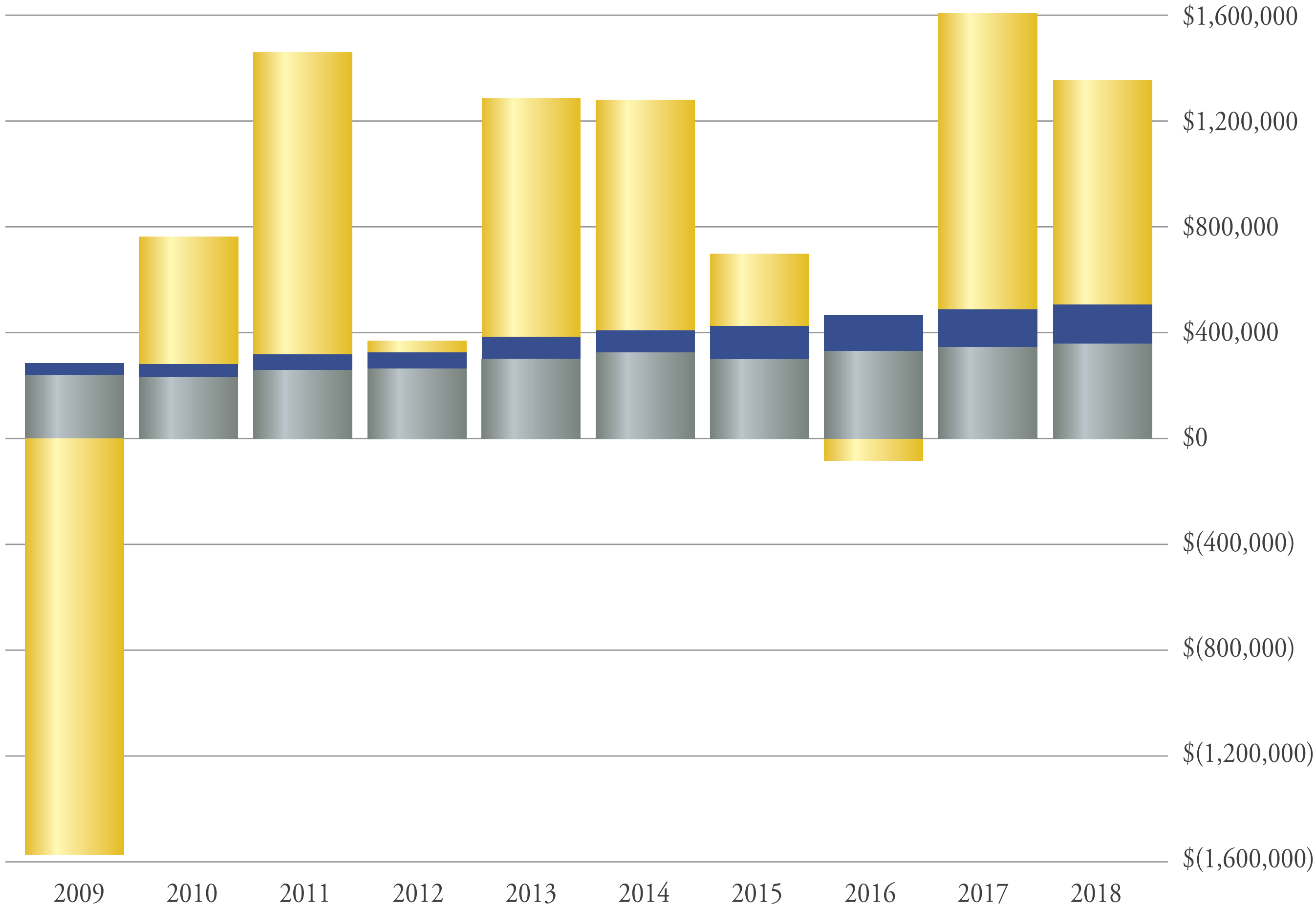
*For the Years Ended June 30, 2009 through 2018*
*(Amounts in Thousands)*


| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Additions** | | | | | | | | | | |
| Employer Contributions[1] | $ 246,232 | $ 243,773 | $ 258,128 | $ 278,091 | $ 303,080 | $ 330,330 | $ 303,244 | $ 340,512 | $ 360,478 | $ 381,452 |
| Member Contributions[2] | 49,550 | 56,986 | 59,612 | 68,630 | 91,056 | 89,861 | 129,895 | 139,132 | 143,858 | 151,006 |
| Investment Income/(Loss)[3] | (1,583,833) | 486,433 | 1,117,138 | 39,786 | 912,310 | 877,018 | 280,842 | (80,028) | 1,098,198 | 797,480 |
| **TOTAL ADDITIONS** | **(1,288,051)** | **787,192** | **1,434,878** | **386,507** | **1,306,446** | **1,297,209** | **713,981** | **399,616** | **1,602,534** | **1,329,938** |
| **Deductions** | | | | | | | | | | |
| Benefits and Refunds | 262,779 | 292,677 | 320,514 | 341,728 | 367,396 | 397,823 | 428,475 | 464,068 | 497,904 | 539,297 |
| Administrative Expenses | 8,939 | 7,226 | 5,599 | 6,205 | 6,258 | 6,386 | 6,710 | 7,569 | 9,961 | 8,752 |
| Other Expenses | 1,292 | 2,234 | 1,665 | 1,814 | 1,572 | 2,483 | 2,208 | 2,664 | 3,202 | 3,340 |
| **TOTAL DEDUCTIONS** | **273,010** | **302,137** | **327,778** | **349,747** | **375,226** | **406,692** | **437,393** | **474,301** | **511,067** | **551,389** |
| **TOTAL CHANGE IN FIDUCIARY NET POSITION** | **$ (1,561,061)** | **$ 485,055** | **$ 1,107,100** | **$ 36,760** | **$ 931,220** | **$ 890,517** | **$ 276,588** | **$ (74,685)** | **$ 1,091,467** | **$ 778,549** |

(1) For the year ended June 30, 2018: Includes $2,784 thousand in Employer Contributions from a Plan asset transfer from an outside plan.
(2) For the year ended June 30, 2018: Includes $1,528 thousand in Member Contributions from a Plan asset transfer from an outside plan.
(3) Net of investment expenses and includes net securities lending income of $238 thousand for the year ended June 30, 2018.

# Additions by Source

*For the Years Ended June 30, 2009 through 2018*
*(Amounts in Thousands)*

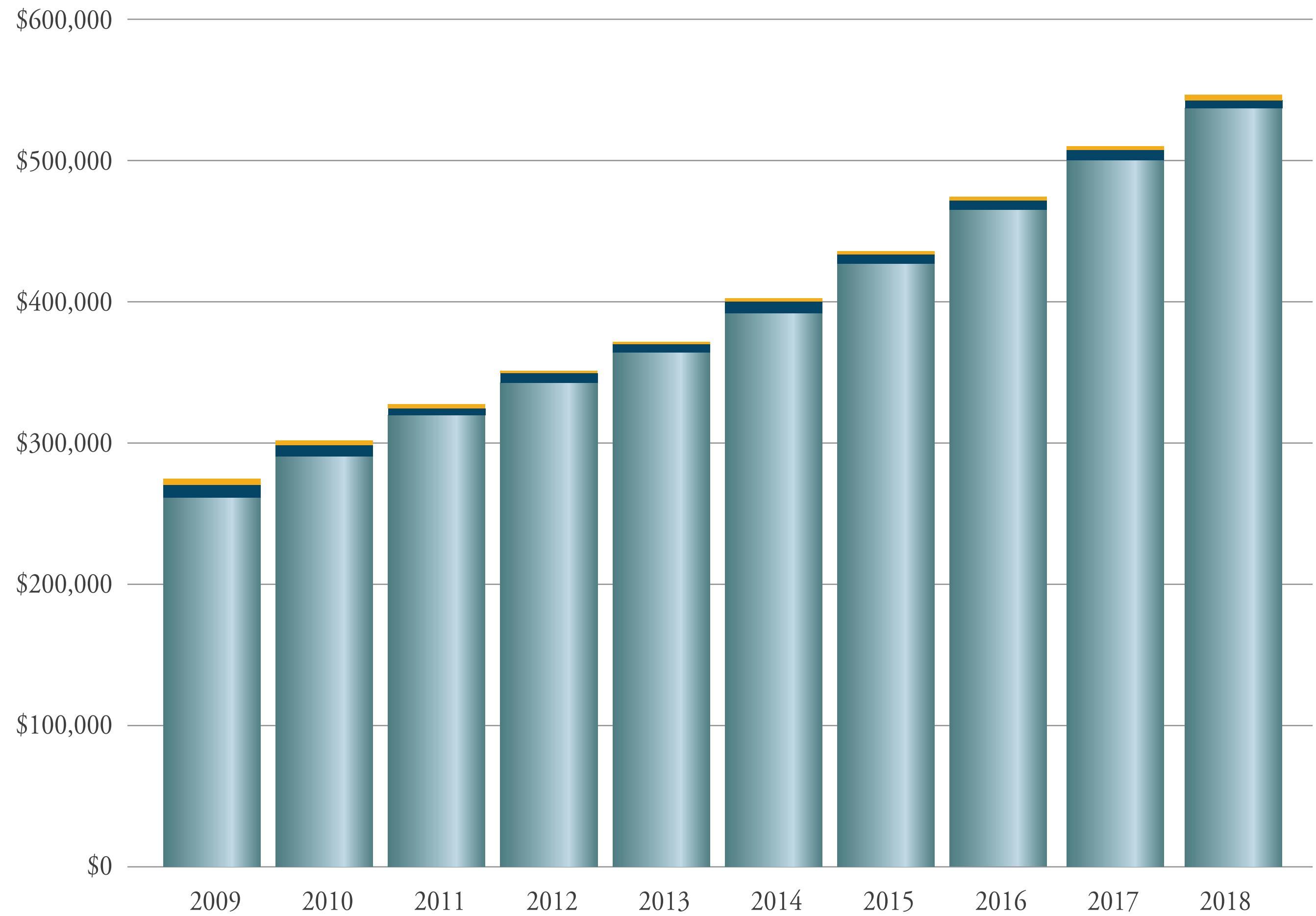



| Additions | | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Employer Contributions[1] | a | $ 246,232 | $ 243,773 | $ 258,128 | $ 278,091 | $ 303,080 | $ 330,330 | $ 303,244 | $ 340,512 | $ 360,478 | $ 381,452 |
| Member Contributions[2] | | 49,550 | 56,986 | 59,612 | 68,630 | 91,056 | 89,861 | 129,895 | 139,132 | 143,858 | 151,006 |
| Investment Income/ (Loss)[3] | | (1,583,833) | 486,433 | 1,117,138 | 39,786 | 912,310 | 877,018 | 280,842 | (80,028) | 1,098,198 | 797,480 |
| **TOTAL ADDITIONS** | | **$ (1,288,051)** | **$ 787,192** | **$ 1,434,878** | **$ 386,507** | **$ 1,306,446** | **$ 1,297,209** | **$ 713,981** | **$ 399,616** | **$ 1,602,534** | **$ 1,329,938** |
| **Covered Payroll[4]** | **b** | **1,219,562** | **1,226,431** | **1,250,193** | **1,244,555** | **1,260,309** | **1,262,752** | **1,267,667** | **1,309,095** | **1,346,408** | **1,406,470** |
| **EMPLOYER CONTRIBUTION AS A PERCENTAGE OF COVERED PAYROLL[4]** | **a/b** | **20.19%** | **19.88%** | **20.65%** | **22.34%** | **24.05%** | **26.16%** | **23.92%** | **26.01%** | **26.77%** | **27.12%** |

(1) For the year ended June 30, 2018: Includes $2,784 thousand in Employer Contributions from a Plan Asset transfer from an outside plan.
(2) For the year ended June 30, 2018: Includes $1,528 thousand in Member Contributions from a Plan Asset transfer from an outside plan.
(3) Net of investment expenses and includes net securities lending income.
(4) 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 year shown.

# Deductions by Type

*For the Years Ended June 30, 2009 through 2018*
*(Amounts in Thousands)*




| Deductions | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| Benefits and Refunds | $ 262,779 | $ 292,677 | $ 320,514 | $ 341,728 | $ 367,396 | $ 397,823 | $ 428,475 | $ 464,068 | $ 497,904 | $ 539,297 |
| Administrative Expenses | 8,939 | 7,226 | 5,599 | 6,205 | 6,258 | 6,386 | 6,710 | 7,569 | 9,961 | 8,752 |
| Other Expenses | 1,292 | 2,234 | 1,665 | 1,814 | 1,572 | 2,483 | 2,208 | 2,664 | 3,202 | 3,340 |
| **TOTAL DEDUCTIONS** | **$ 273,010** | **$ 302,137** | **$ 327,778** | **$ 349,747** | **$ 375,226** | **$ 406,692** | **$ 437,393** | **$ 474,301** | **$ 511,067** | **$ 551,389** |

# Benefit Expenses by Type

*For the Years Ended June 30, 2009 through 2018*
*(Amounts in Thousands)*

| Type of Benefit Expense | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Age & Service Benefits** | | | | | | | | | | |
| Retirees | $ 190,105 | $ 217,241 | $ 238,775 | $ 256,160 | $ 276,360 | $ 300,482 | $ 327,541 | $ 354,650 | $ 384,184 | $ 418,274 |
| Survivors | 9,452 | 10,396 | 11,427 | 12,259 | 13,230 | 14,293 | 15,314 | 16,817 | 18,428 | 20,151 |
| Death in Service Benefits | 332 | 313 | 388 | 341 | 315 | 424 | 247 | 590 | 421 | 466 |
| **Disability Benefits** | | | | | | | | | | |
| Duty | 37,473 | 39,858 | 42,230 | 44,080 | 47,137 | 50,325 | 52,722 | 55,037 | 58,519 | 61,904 |
| Non-Duty | 8,125 | 8,642 | 9,156 | 9,557 | 10,220 | 10,911 | 11,431 | 11,933 | 12,688 | 13,422 |
| Survivor | 6,512 | 6,926 | 7,613 | 7,947 | 8,576 | 9,265 | 9,927 | 10,902 | 11,946 | 13,064 |
| **TOTAL BENEFIT PAYMENTS** | **251,999** | **283,376** | **309,589** | **330,344** | **355,838** | **385,700** | **417,182** | **449,929** | **486,186** | **527,281** |
| **Refunds** | | | | | | | | | | |
| Death | 538 | 1,462 | 925 | 717 | 826 | 1,016 | 1,106 | 1,678 | 1,563 | 1,463 |
| Separation | 10,242 | 7,839 | 10,000 | 10,667 | 10,732 | 11,107 | 10,187 | 12,461 | 10,155 | 10,553 |
| **TOTAL REFUNDS** | **10,780** | **9,301** | **10,925** | **11,384** | **11,558** | **12,123** | **11,293** | **14,139** | **11,718** | **12,016** |
| **TOTAL BENEFIT AND REFUND PAYMENTS** | **$ 262,779** | **$ 292,677** | **$ 320,514** | **$ 341,728** | **$ 367,396** | **$ 397,823** | **$ 428,475** | **$ 464,068** | **$ 497,904** | **$ 539,297** |

# Retired Members by Type of Benefit

*As of June 30, 2018*

| Amount of Monthly Benefit[2] | Number of Retirees | Type of Retirement[1] A | B | C |
|---|---|---|---|---|
| **General Members** | | | | |
| $0 - $999 | 1,874 | 1,271 | 89 | 514 |
| $1,000 - $1,999 | 2,735 | 1,990 | 309 | 436 |
| $2,000 - $2,999 | 1,948 | 1,467 | 260 | 221 |
| $3,000 - $3,999 | 1,249 | 1,061 | 97 | 91 |
| $4,000 - $4,999 | 863 | 780 | 40 | 43 |
| $5,000 - $5,999 | 573 | 538 | 15 | 20 |
| $6,000 - $6,999 | 364 | 349 | 5 | 10 |
| $7,000 - $7,999 | 299 | 287 | 3 | 9 |
| $8,000 - $8,999 | 214 | 209 | 3 | 2 |
| $9,000 - $9,999 | 141 | 137 | 2 | 2 |
| Over $10,000 | 333 | 328 | 1 | 4 |
| **TOTAL** | **10,593** | **8,417** | **824** | **1,352** |

| Amount of Monthly Benefit[2] | Number of Retirees | Type of Retirement[1] A | B | C |
|---|---|---|---|---|
| **Safety Members** | | | | |
| $0 - $999 | 118 | 35 | 19 | 64 |
| $1,000 - $1,999 | 209 | 55 | 53 | 101 |
| $2,000 - $2,999 | 234 | 75 | 99 | 60 |
| $3,000 - $3,999 | 407 | 79 | 277 | 51 |
| $4,000 - $4,999 | 201 | 89 | 78 | 34 |
| $5,000 - $5,999 | 155 | 95 | 44 | 16 |
| $6,000 - $6,999 | 157 | 107 | 41 | 9 |
| $7,000 - $7,999 | 141 | 110 | 23 | 8 |
| $8,000 - $8,999 | 124 | 97 | 24 | 3 |
| $9,000 - $9,999 | 100 | 70 | 28 | 2 |
| Over $10,000 | 277 | 188 | 83 | 6 |
| **TOTAL** | **2,123** | **1,000** | **769** | **354** |

| | Number of Retirees | Type of Retirement[1] A | B | C |
|---|---|---|---|---|
| **GRAND TOTAL** | **12,716** | **9,417** | **1,593** | **1,706** |

(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.

# History of Membership by Participating Employer

*For the Years Ended June 30, 2009 through 2018*

| Participating Employer | 2009 Number of Members | 2009 % of Total | 2010 Number of Members | 2010 % of Total | 2011 Number of Members | 2011 % of Total | 2012 Number of Members | 2012 % of Total |
|---|---|---|---|---|---|---|---|---|
| Barstow Fire Protection District | 23 | 0.12% | 23 | 0.12% | 21 | 0.11% | 20 | 0.10% |
| Big Bear Fire Authority | - | 0.00% | - | 0.00% | - | 0.00% | - | 0.00% |
| California Electronic Recording Transaction Network Authority | 1 | 0.01% | 1 | 0.01% | 1 | 0.01% | 1 | 0.01% |
| California State Association of Counties | 125 | 0.66% | 118 | 0.60% | 108 | 0.56% | 105 | 0.54% |
| City of Big Bear Lake | 119 | 0.63% | 116 | 0.59% | 83 | 0.43% | 77 | 0.40% |
| City of Chino Hills | 172 | 0.91% | 172 | 0.88% | 168 | 0.87% | 168 | 0.87% |
| County of San Bernardino | 16,563 | 87.38% | 17,142 | 87.81% | 16,882 | 87.66% | 16,963 | 87.87% |
| Crest Forest Fire Protection District | 27 | 0.14% | 27 | 0.14% | 26 | 0.13% | 29 | 0.15% |
| Crestline Sanitation District | - | 0.00% | - | 0.00% | 20 | 0.10% | 20 | 0.10% |
| Department of Water and Power of the City of Big Bear Lake | - | 0.00% | - | 0.00% | - | 0.00% | 33 | 0.17% |
| Hesperia Recreation and Park District | 17 | 0.09% | 19 | 0.10% | 17 | 0.09% | 18 | 0.09% |
| Inland Library System | 2 | 0.01% | 2 | 0.01% | 1 | 0.01% | 1 | 0.01% |
| Inland Valley Development Agency | 18 | 0.09% | 14 | 0.07% | 8 | 0.04% | - | 0.00% |
| Law Library for San Bernardino County | 9 | 0.05% | 8 | 0.04% | 8 | 0.04% | 8 | 0.04% |
| Local Agency Formation Commission | 6 | 0.03% | 5 | 0.03% | 4 | 0.02% | 4 | 0.02% |
| Mojave Desert Air Quality Management District | 35 | 0.18% | 37 | 0.19% | 38 | 0.20% | 38 | 0.20% |
| Rim of the World Recreation & Park District | 2 | 0.01% | 2 | 0.01% | 1 | 0.01% | 1 | 0.01% |
| San Bernardino County Transportation Authority | 38 | 0.20% | 38 | 0.19% | 39 | 0.20% | 41 | 0.21% |
| San Bernardino County Employees' Retirement Association (SBCERA) | 13 | 0.07% | 20 | 0.10% | 42 | 0.22% | 48 | 0.25% |
| San Bernardino International Airport Authority | 17 | 0.09% | 15 | 0.08% | 6 | 0.03% | - | 0.00% |
| South Coast Air Quality Management District | 796 | 4.20% | 780 | 4.00% | 767 | 3.98% | 740 | 3.83% |
| Superior Court of California County of San Bernardino | 972 | 5.13% | 981 | 5.03% | 1,018 | 5.29% | 991 | 5.13% |
| **TOTAL MEMBERS** | **18,955** | **100.00%** | **19,520** | **100.00%** | **19,258** | **100.00%** | **19,306** | **100.00%** |

Note: See Note on page 145, for further information.

# History of Membership by Participating Employer

*For the Years Ended June 30, 2009 through 2018*

*(Continued)*

| 2013 | | 2014 | | 2015 | | 2016 | | 2017 | | 2018 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of Members | % of Total | Number of Members | % of Total | Number of Members | % of Total | Number of Members | % of Total | Number of Members | % of Total | Number of Members | % of Total |
| 20 | 0.10% | 27 | 0.14% | 28 | 0.14% | 18 | 0.09% | 20 | 0.09% | 23 | 0.11% |
| - | 0.00% | - | 0.00% | - | 0.00% | - | 0.00% | - | 0.00% | 32 | 0.15% |
| 1 | 0.01% | 1 | 0.01% | 2 | 0.01% | 2 | 0.01% | 2 | 0.01% | 2 | 0.01% |
| 94 | 0.47% | 83 | 0.43% | 94 | 0.47% | 94 | 0.46% | 100 | 0.47% | 106 | 0.49% |
| 71 | 0.37% | 66 | 0.34% | 65 | 0.33% | 67 | 0.33% | 67 | 0.32% | 51 | 0.24% |
| 161 | 0.83% | 148 | 0.76% | 152 | 0.76% | 153 | 0.74% | 153 | 0.72% | 152 | 0.71% |
| 17,230 | 88.81% | 17,341 | 88.93% | 17,718 | 88.87% | 18,319 | 89.19% | 18,797 | 89.05% | 19,096 | 88.96% |
| - | 0.00% | - | 0.00% | - | 0.00% | - | 0.00% | - | 0.00% | - | 0.00% |
| 18 | 0.09% | 19 | 0.10% | 20 | 0.10% | 19 | 0.09% | 19 | 0.09% | 19 | 0.09% |
| 33 | 0.17% | 32 | 0.16% | 32 | 0.16% | 31 | 0.15% | 31 | 0.15% | 35 | 0.16% |
| 18 | 0.09% | 44 | 0.23% | 49 | 0.24% | 40 | 0.19% | 24 | 0.11% | 24 | 0.11% |
| 1 | 0.01% | 1 | 0.01% | 1 | 0.01% | 1 | 0.01% | 1 | 0.01% | 1 | 0.00% |
| - | 0.00% | - | 0.00% | - | 0.00% | - | 0.00% | - | 0.00% | - | 0.00% |
| 8 | 0.04% | 8 | 0.04% | 8 | 0.04% | 8 | 0.04% | 6 | 0.03% | 6 | 0.03% |
| 4 | 0.02% | 5 | 0.03% | 5 | 0.02% | 5 | 0.02% | 5 | 0.02% | 5 | 0.02% |
| 42 | 0.22% | 41 | 0.21% | 41 | 0.21% | 39 | 0.19% | 39 | 0.18% | 42 | 0.20% |
| - | 0.00% | - | 0.00% | - | 0.00% | - | 0.00% | - | 0.00% | - | 0.00% |
| 48 | 0.25% | 45 | 0.23% | 50 | 0.25% | 55 | 0.27% | 60 | 0.28% | 57 | 0.27% |
| 47 | 0.24% | 50 | 0.26% | 48 | 0.24% | 55 | 0.27% | 64 | 0.30% | 60 | 0.28% |
| - | 0.00% | - | 0.00% | - | 0.00% | - | 0.00% | - | 0.00% | - | 0.00% |
| 713 | 3.68% | 697 | 3.57% | 695 | 3.49% | 682 | 3.32% | 702 | 3.33% | 723 | 3.37% |
| 892 | 4.60% | 889 | 4.55% | 930 | 4.66% | 950 | 4.63% | 1,020 | 4.84% | 1,031 | 4.80% |
| **19,401** | **100.00%** | **19,497** | **100.00%** | **19,938** | **100.00%** | **20,538** | **100.00%** | **21,110** | **100.00%** | **21,465** | **100.00%** |

Note: For the year ended June 30, 2018. On June 23, 2018, Big Bear Fire Authority joined SBCERA as a participating employer. A portion of the new membership resulted from a Plan transfer from an outside plan as if those members were always members of SBCERA. 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.

# Average Benefit Payments

*Retirement Effective Dates July 1, 2008 to June 30, 2018*

| | Service Years Credited | | | | | | |
|---|---|---|---|---|---|---|---|
| | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30+ |
| **Period 7/1/08 to 6/30/09** | | | | | | | |
| Average Monthly Benefit | $ 787 | $ 1,453 | $ 1,818 | $ 2,806 | $ 3,666 | $ 4,767 | $ 6,134 |
| Monthly Final Average Comp.[1] | $ 3,370 | $ 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 | $ 1,229 | $ 1,656 | $ 1,929 | $ 3,269 | $ 4,878 | $ 6,328 | $ 8,936 |
| Monthly Final Average Comp.[1] | $ 4,272 | $ 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 | $ 1,399 | $ 1,887 | $ 1,989 | $ 3,694 | $ 4,588 | $ 6,638 | $ 8,449 |
| Monthly Final Average Comp.[1] | $ 5,979 | $ 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 | $ 832 | $ 1,821 | $ 2,085 | $ 2,786 | $ 4,506 | $ 5,282 | $ 8,395 |
| Monthly Final Average Comp.[1] | $ 4,425 | $ 5,084 | $ 4,805 | $ 5,092 | $ 6,901 | $ 6,906 | $ 9,021 |
| Number of Active Retirees | 3 | 45 | 96 | 57 | 107 | 70 | 97 |
| **Period 7/1/12 to 6/30/13** | | | | | | | |
| Average Monthly Benefit | $ 2,696 | $ 1,871 | $ 2,006 | $ 3,405 | $ 4,119 | $ 6,005 | $ 8,223 |
| Monthly Final Average Comp.[1] | $ 9,857 | $ 4,645 | $ 5,369 | $ 6,426 | $ 6,479 | $ 7,969 | $ 8,771 |
| Number of Active Retirees | 6 | 45 | 112 | 72 | 92 | 92 | 93 |
| **Period 7/1/13 to 6/30/14** | | | | | | | |
| Average Monthly Benefit | $ 1,568 | $ 1,836 | $ 2,124 | $ 2,724 | $ 4,137 | $ 5,714 | $ 6,549 |
| Monthly Final Average Comp.[1] | $ 3,907 | $ 5,148 | $ 5,402 | $ 5,274 | $ 6,343 | $ 7,216 | $ 6,878 |
| Number of Active Retirees | 2 | 24 | 129 | 77 | 117 | 90 | 92 |
| **Period 7/1/14 to 6/30/15** | | | | | | | |
| Average Monthly Benefit | $ 1,111 | $ 1,713 | $ 1,983 | $ 2,804 | $ 4,521 | $ 5,708 | $ 7,713 |
| Monthly Final Average Comp.[1] | $ 5,347 | $ 5,293 | $ 5,112 | $ 5,527 | $ 6,685 | $ 6,837 | $ 7,473 |
| Number of Active Retirees | 4 | 46 | 92 | 81 | 96 | 110 | 114 |
| **Period 7/1/15 to 6/30/16** | | | | | | | |
| Average Monthly Benefit | $ 350 | $ 1,669 | $ 2,215 | $ 2,913 | $ 3,886 | $ 5,576 | $ 7,764 |
| Monthly Final Average Comp.[1] | $ 7,685 | $ 4,803 | $ 5,795 | $ 5,456 | $ 5,657 | $ 6,613 | $ 8,041 |
| Number of Active Retirees | 1 | 54 | 80 | 97 | 91 | 104 | 107 |
| **Period 7/1/16 to 6/30/17** | | | | | | | |
| Average Monthly Benefit | $ 574 | $ 2,042 | $ 2,239 | $ 3,306 | $ 4,470 | $ 6,253 | $ 7,770 |
| Monthly Final Average Comp.[1] | $ 3,227 | $ 5,955 | $ 5,187 | $ 6,294 | $ 6,493 | $ 7,224 | $ 7,793 |
| Number of Active Retirees | 3 | 63 | 103 | 90 | 86 | 107 | 145 |
| **Period 7/1/17 to 6/30/18** | | | | | | | |
| Average Monthly Benefit | $ 1,591 | $ 1,742 | $ 2,273 | $ 3,236 | $ 4,228 | $ 6,692 | $ 7,852 |
| Monthly Final Average Comp.[1] | $ 6,706 | $ 6,122 | $ 5,675 | $ 5,840 | $ 6,237 | $ 7,196 | $ 8,069 |
| Number of Active Retirees | 11 | 49 | 84 | 110 | 66 | 120 | 128 |
| **Total Retirees** | | | | | | | |
| Average Monthly Benefit | $ 787 | $ 1,511 | $ 1,957 | $ 2,799 | $ 3,873 | $ 5,723 | $ 8,048 |
| Monthly Final Average Comp.[1] | $ 5,436 | $ 4,755 | $ 4,825 | $ 5,175 | $ 5,571 | $ 6,610 | $ 7,488 |
| Number of Active Retirees[2] | 532 | 1,357 | 2,298 | 1,786 | 1,655 | 1,486 | 1,896 |

(1) Comp. = Compensation

(2) Active Retiree count does not include beneficiary payments. See page 149 for further information.

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.

section

# 5.1

# STATISTICAL

## *Membership Information*

*(Unaudited)*


**Vivian Creek Trail**

*San Gorgonio Peak*

*(Elevation Gain: 5,452 feet)*

# Section 5.1

## STATISTICAL

### *Membership Information*

*(Unaudited)*

## Vivian Creek Trail

*(San Gorgonio Peak)*

Mt. San Gorgonio is Southern California's tallest mountain and is a common "warm-up" for those training to hike the summit of California's highest peak, Mt. Whitney. San Gorgonio offers breathtaking, panoramic views of the entire region.

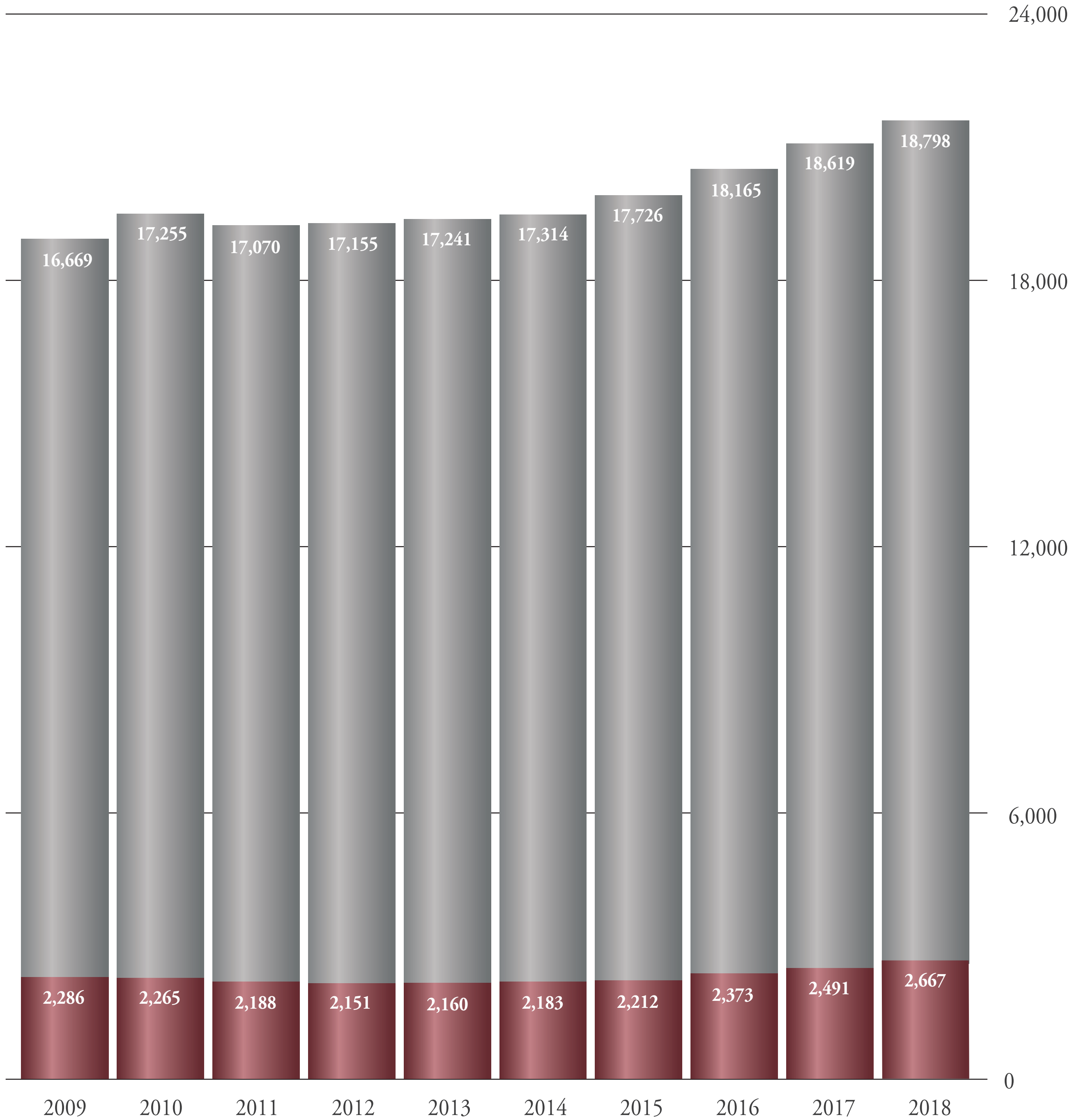
The Vivian Creek Trail, which leads to the peak, is approximately 17 miles round-trip, and is intended for experienced hikers with adequate supplies and a comprehensive array of tools.

As much as SBCERA offers in retirement, it is important for members to know that a defined benefit is just one piece of their total retirement picture. During our Pre-Retirement Seminars, we bring together deferred compensation providers, San Bernardino County's Employee Benefits & Services Division, and the Social Security Administration to speak to our members about additional income and insurance plans they may be able to access during their golden years.

Source:
https://www.alltrails.com/trail/us/california/vivian-creek-trail-to-san-gorgonio-peak

# Active Membership Classification

*For the Years Ended June 30, 2009 through 2018*

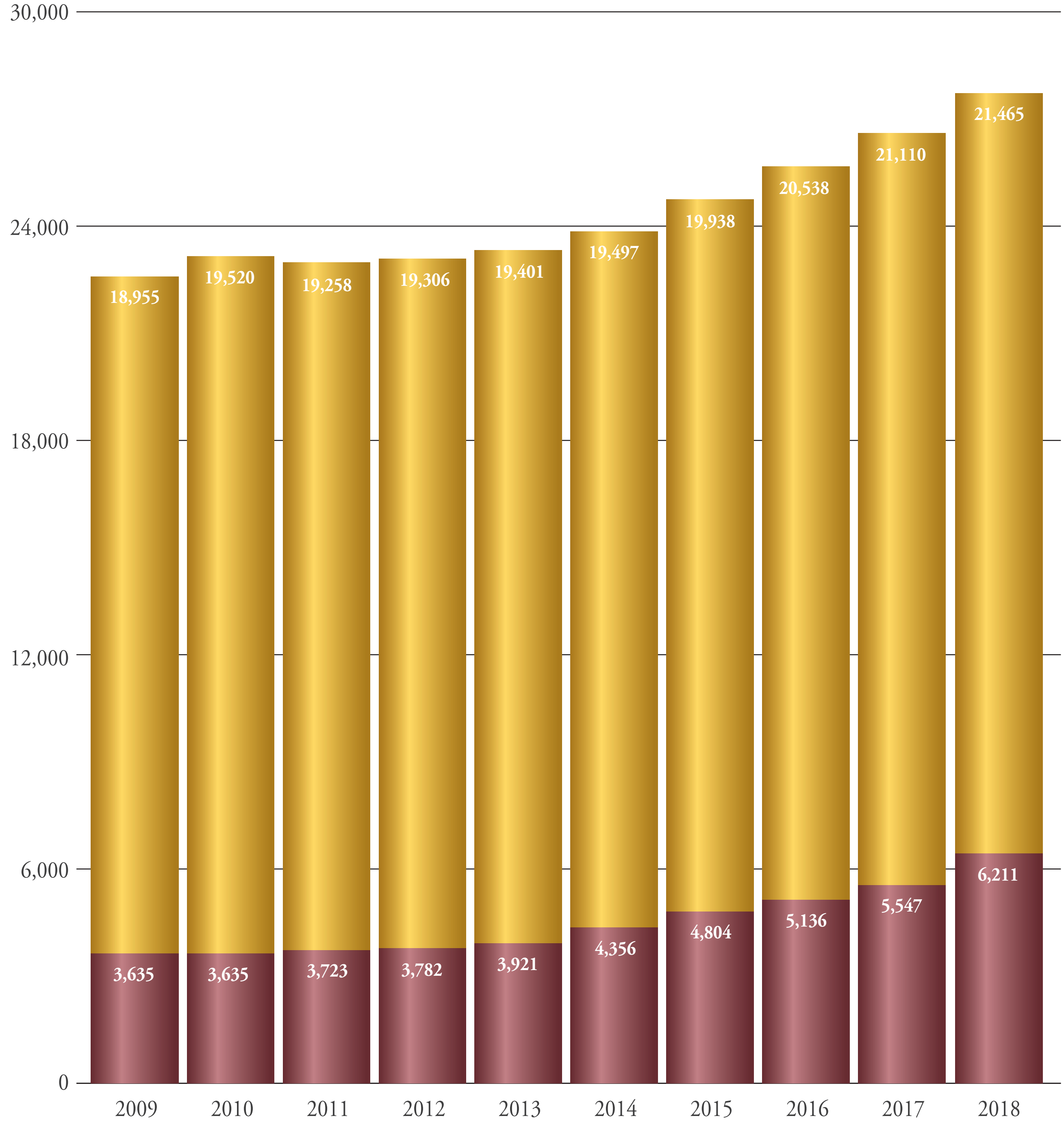



| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| **General** | 16,669 | 17,255 | 17,070 | 17,155 | 17,241 | 17,314 | 17,726 | 18,165 | 18,619 | 18,798 |
| **Safety** | 2,286 | 2,265 | 2,188 | 2,151 | 2,160 | 2,183 | 2,212 | 2,373 | 2,491 | 2,667 |
| **TOTAL** | **18,955** | **19,520** | **19,258** | **19,306** | **19,401** | **19,497** | **19,938** | **20,538** | **21,110** | **21,465** |

Note: Membership is presented for active members only.

# Membership History (Active and Deferred)

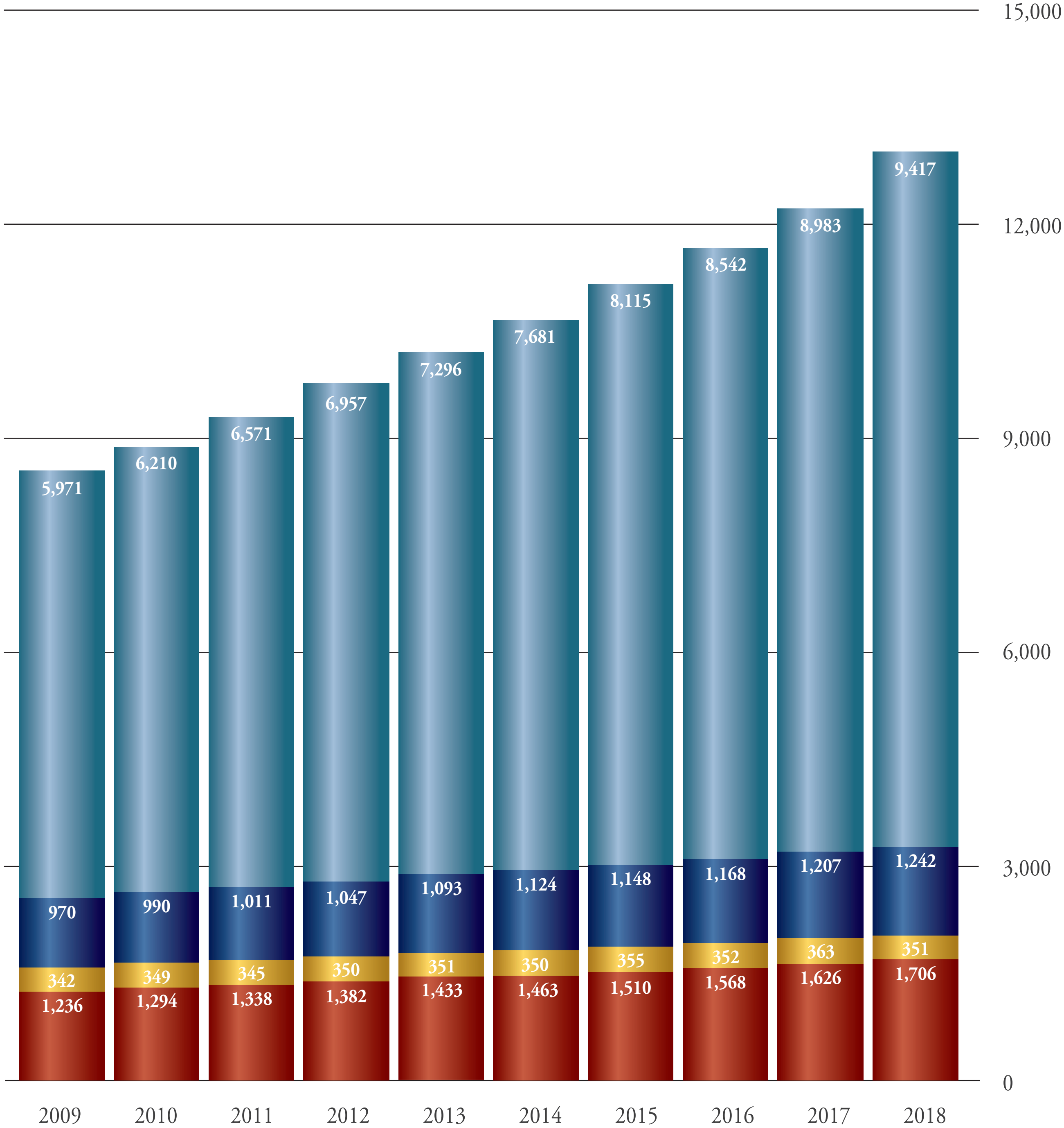
*For the Years Ended June 30, 2009 through 2018*




| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Active** | 18,955 | 19,520 | 19,258 | 19,306 | 19,401 | 19,497 | 19,938 | 20,538 | 21,110 | 21,465 |
| **Deferred** | 3,635 | 3,635 | 3,723 | 3,782 | 3,921 | 4,356 | 4,804 | 5,136 | 5,547 | 6,211 |
| TOTAL | **22,590** | **23,155** | **22,981** | **23,088** | **23,322** | **23,853** | **24,742** | **25,674** | **26,657** | **27,676** |

# Membership History (Retired)

*For the Years Ended June 30, 2009 through 2018*

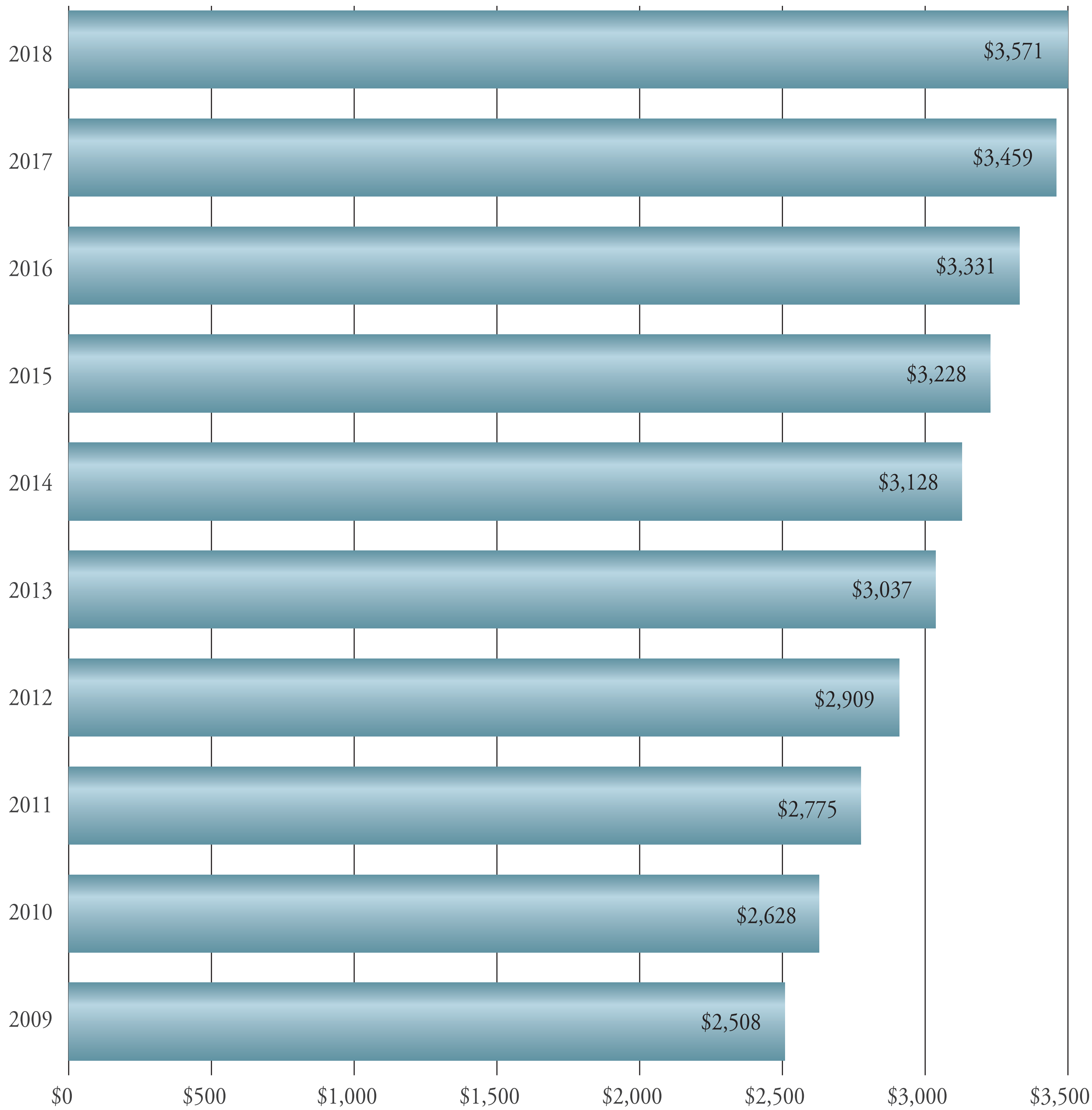



| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Service Retirement** | 5,971 | 6,210 | 6,571 | 6,957 | 7,296 | 7,681 | 8,115 | 8,542 | 8,983 | 9,417 |
| **Service Connected Disability** | 970 | 990 | 1,011 | 1,047 | 1,093 | 1,124 | 1,148 | 1,168 | 1,207 | 1,242 |
| **Non-Service Connected Disability** | 342 | 349 | 345 | 350 | 351 | 350 | 355 | 352 | 363 | 351 |
| **Survivors** | 1,236 | 1,294 | 1,338 | 1,382 | 1,433 | 1,463 | 1,510 | 1,568 | 1,626 | 1,706 |
| TOTAL | **8,519** | **8,843** | **9,265** | **9,736** | **10,173** | **10,618** | **11,128** | **11,630** | **12,179** | **12,716** |

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, 2009 through 2018*

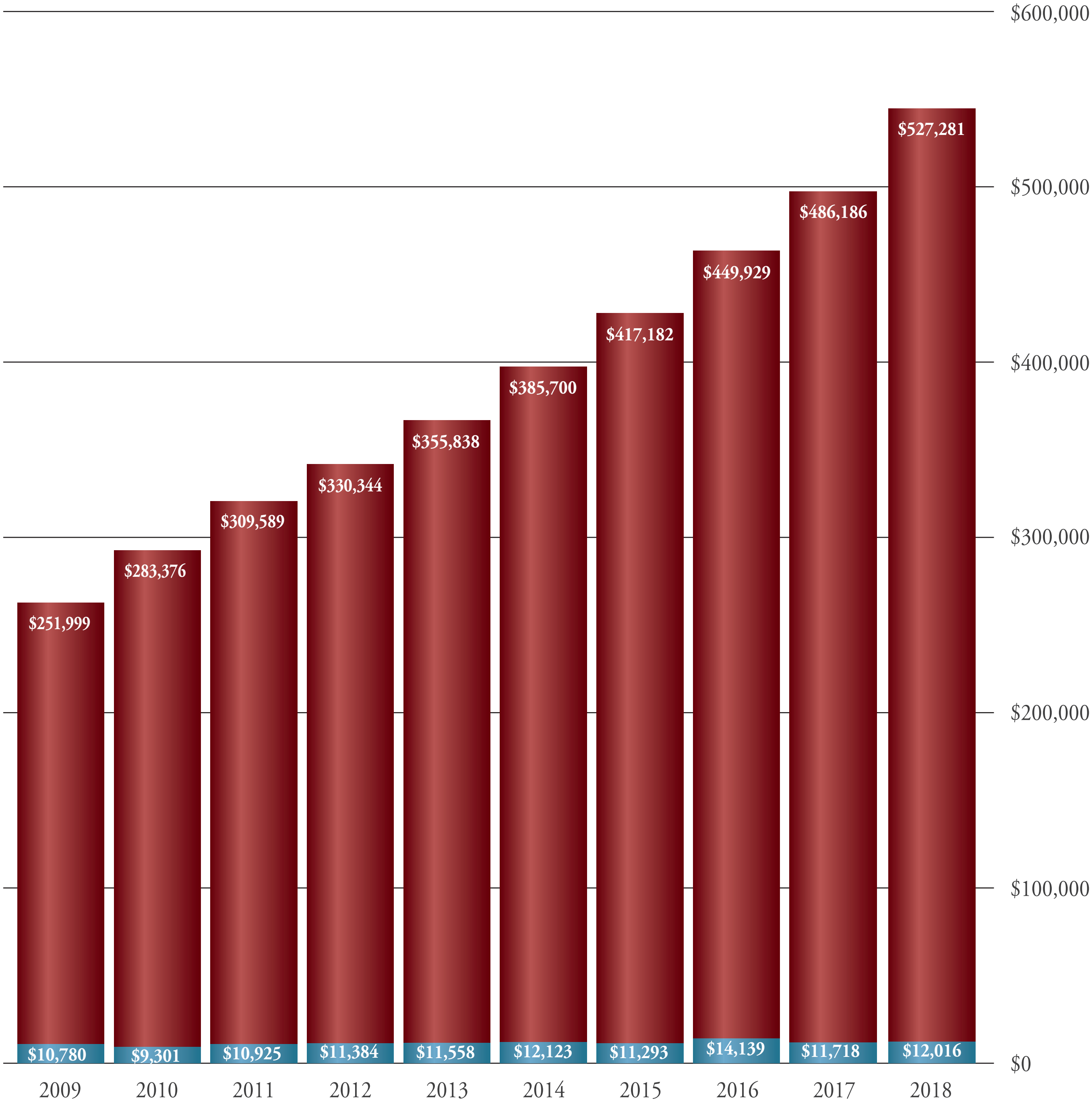



| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Average Monthly Benefit** | $2,508 | $2,628 | $2,775 | $2,909 | $3,037 | $3,128 | $3,228 | $3,331 | $3,459 | $3,571 |

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, 2009 through 2018*
*(Amounts in Thousands)*




| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| Benefits | $251,999 | $283,376 | $309,589 | $330,344 | $355,838 | $385,700 | $417,182 | $449,929 | $486,186 | $ 527,281 |
| Refunds | 10,780 | 9,301 | 10,925 | 11,384 | 11,558 | 12,123 | 11,293 | 14,139 | 11,718 | 12,016 |
| **TOTAL** | **$262,779** | **$292,677** | **$320,514** | **$341,728** | **$367,396** | **$397,823** | **$428,475** | **$464,068** | **$497,904** | **$ 539,297** |

# 2018

## Comprehensive Annual Financial Report

*For the Years Ended June 30, 2018 and 2017*

*A Multiple-Employer Pension Trust Fund | San Bernardino, California*

SB | cera
San Bernardino
County Employees' Retirement Association

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