# 2018 ANNUAL REPORT

Ventura County Employees' Retirement Association



# INDUSTRY IN VENTURA COUNTY

Pension Trust Fund for the County of Ventura, California Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2018



# COMPREHENSIVE ANNUAL FINANCIAL REPORT FOR THE FISCAL YEAR ENDED JUNE 30, 2018

Pension Trust Fund for the County of Ventura, Ventura County Superior Court, Ventura County Air Pollution Control District, Ventura Regional Sanitation District and VCERA

Issued by: Linda Webb, Retirement Administrator

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Industry in Ventura County



Endowed with numerous natural and developed resources, Ventura County boasts several industries that are critical to the stability, wellbeing and future of its residents. Each featured industry in this report uniquely shapes the culture and character of the county in ways that make it a great place to live and work.

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Perhaps the most well-known industry in Ventura County, both among locals and visitors, is tourism. Featuring 22 miles of uninterrupted coastline, a mild Mediterranean climate, diverse arts and culture, abundant food and wine, outdoor activities and scenic islands, Ventura County is a go-to locale for leisure-seekers. The City of Ventura alone attracts more per-capita "leisure spending" than California as a whole, although many visitors opt for the no-cost beaches that face the majestic Channel Islands sitting 11 miles offshore.



Life guard station overlooking beachgoers (photo by Kamilo Bustamante)

> Kayakers approach Channel Islands (photo by Doug Mangum)

# LETTER OF TRANSMITTAL



1190 S. VICTORIA AVENUE, SUITE 200 • VENTURA, CA 93003 PHONE: 805-339-4250 • FAX: 805-339-4269 • WWW.VCERA.ORG

December 31, 2018

Board of Retirement Ventura County Employees' Retirement Association 1190 South Victoria Avenue, Suite 200 Ventura, CA 93003

Dear Board of Retirement Trustees:

It is with pleasure that I submit to you the Comprehensive Annual Financial Report (CAFR) of the Ventura County Employees' Retirement Association (VCERA, Association, Fund, or Plan) for the fiscal year ended June 30, 2018. The report is intended to provide a detailed review of the Association's financial, actuarial, and investment status. VCERA has the duty and authority to administer plan benefits for employees of the County of Ventura, Ventura County Superior Court, Ventura County Air Pollution Control District, Ventura Regional Sanitation District and VCERA.

### VCERA AND ITS SERVICES

VCERA was established by the County of Ventura in 1947, administered by the Board of Retirement (the Board), and governed by the County Employees' Retirement Law of 1937 ("CERL," California Government Code Section 31450 et. seq.) and the California Public Employees' Pension Reform Act of 2013 ("PEPRA," California Government Code Section 7522 et seq.).

The Board is responsible for the general management of VCERA and for determining VCERA's investment objectives, strategies, and policies. The Board appoints a Retirement Administrator to whom is delegated the responsibility for overseeing day-to-day management of VCERA and developing its annual budget. Adoption of the budget is subject to approval by the Board.

VCERA is a public employee retirement system whose main function is to provide service retirement, disability, death, and survivor benefits to general and safety members employed by the County of Ventura and participating special districts.

### FINANCIAL INFORMATION

The financial attest audit performed by Brown Armstrong Accountancy Corporation states that VCERA's financial statements are prepared by management, presented in conformity with Generally Accepted Accounting Principles (GAAP), and free of material misstatement. Management acknowledges it is responsible for the entire contents of this CAFR.

Maintaining appropriate internal controls is the responsibility of management. However, management recognizes that no control or combination of controls can entirely free an organization from all error or misstatement. At their best, controls provide reasonable assurance such failings do not occur. The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits likely to be derived; the valuation of cost and benefits requires estimates and judgments by management. VCERA's management believes it has sufficient controls in place to mitigate the inherent risk within its financial reporting and accounting systems.

2018 COMPREHENSIVE ANNUAL FINANCIAL REPORT PAGE 1

### LETTER OF TRANSMITTAL

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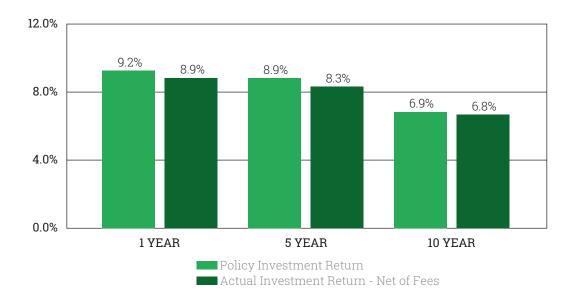
An overview of VCERA's fiscal operations is presented in the Management Discussion & Analysis (MD&A) section preceding the financial statements. This transmittal letter, when taken into consideration with the MD&A, provides an enhanced picture of the activities of the Association.

### **INVESTMENT ACTIVITIES**

The Board of Retirement's (the Board) Investment Policy provides the framework for the management and oversight of VCERA's investments. The Investment Policy establishes VCERA's investment objectives and defines the principal duties of the Board, staff, custodian, investment managers, and consultants. The Board adopted a new Asset Allocation in May 2018.

A pension fund's asset allocation policy implemented in a consistent and disciplined manner is generally recognized to have the most impact on a fund's performance. The asset allocation process determines a fund's optimal long-term asset class mix (target allocation), which is expected to achieve a specific set of investment objectives. The most current asset allocation plan and corresponding implementation plan was approved by the Board in May 2018.

For the one-year period ended June 30, 2018, VCERA's portfolio's asset classes' investment net-of-fees returns versus their respective benchmarks were mixed. The publicly-traded U.S. equity portfolio returned 14.8%, matching its benchmark. The non-U.S. equity portfolio returned 8.1%, outperforming its benchmark by 0.8%. Global equity returned 11.2%, outperforming its benchmark by 0.5%. Private equity returned 17.9%, underperforming its public market benchmark by 0.3%. Fixed income returned 0.1%, outperforming its policy benchmark by 0.5%. Performance returns for the newly adopted asset classes were not readily available as of June 30, 2018. The Total Fund returned 8.9% for the year, underperforming its policy benchmark by 0.3%. Over the five-year and ten-year periods ended June 30, 2018, the Total Fund's annualized returns were 8.3% and 6.8%, underperforming policy benchmarks by 0.6% and 0.1% respectively. The chart below compares the Total Fund's actual and policy investment returns for one, five and ten years.



### LETTER OF TRANSMITTAL

CONTINUED

### **ACTUARIAL FUNDING STATUS**

Pursuant to provisions in the CERL, VCERA engages an independent actuarial firm to perform annual actuarial valuations. A systemwide actuarial valuation (i.e., Experience Study) is performed every three years, at which time VCERA's economic and non-economic assumptions are updated. Triennial Experience Studies serve as the basis for the underlying assumptions that ultimately trigger changes in member and employer contribution rates necessary to properly fund the system. The latest triennial Experience Study was conducted as of June 30, 2017.

VCERA is funded by member and employer contributions and investment earnings on those contributions. Normal member contributions are those required to fund a specific annuity at a specified age. Member contribution rates for members who entered VCERA membership prior to January 1, 2013, vary according to the member's benefit tier. The CERL also requires members to pay half the contributions required to fund the cost-of-living adjustment (COLA) benefit, which is affected by changes in both economic and non-economic assumptions.

Liabilities not funded through member contributions are the responsibility of the employer. Changes to any of the economic and non-economic assumptions impact employer contribution rates. The employer is responsible for contributing to cover the cost of benefits expected to be accrued in the future and half of the COLA benefit. These are "normal cost" contributions. The employer is also responsible for making additional contributions to eliminate any shortfalls in funding (i.e., liabilities) that have accrued in the past, which is known as the Unfunded Actuarial Accrued Liability (UAAL).

Provisions of PEPRA require equal sharing of normal costs between employers and employees. In January 2013, VCERA established new PEPRA benefit tiers for general and safety members with membership dates on or after January 1, 2013. Contributions for these tiers are based on a single flat-rate percentage and are structured in accordance with the required 50/50 cost sharing. A member's age at first membership is not considered.

The June 30, 2018 valuation, determining the funded ratio to be 87.8%, a recognized UAAL of \$747 million. The employer contribution rate will therefore be set equal to 19.7% of payroll for the amortization of the UAAL, plus the normal cost rate of 9.8%, for a total contribution rate of 28.5% of payroll for the 2019-20 fiscal year.

### SIGNIFICANT EVENTS, ACCOMPLISHMENTS, AND OBJECTIVES

The 2017-18 fiscal year (FY) saw changes in the operation and administration of the retirement system by the Board and staff. Some of the more significant events and accomplishments of the past year are summarized below:

- Completed an Actuarial Audit of the Actuarial Valuation.
- Completed triennial Actuarial Experience Study.
- Implemented advanced programming in pension administration system to accommodate IRS model regulations.
- Launched redesigned VCERA Website.
- Issued revised member handbook.

### LETTER OF TRANSMITTAL

CONTINUED

### **OBJECTIVES FOR THE COMING YEAR:**

- Launch the Member Self Service (MSS) portal of the new pension system.
- Expand member education resources and materials.
- Launch redesigned VCERA newsletter (VCERA Vibes).
- Hire Chief Technology Officer.
- Hire Communications Officer.

### CERTIFICATE OF ACHIEVEMENT

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Ventura County Employees' Retirement Association for its CAFR for the fiscal year ended June 30, 2017. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized CAFR.

A Certificate of Achievement is valid for a period of one year only. Management believes 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.

### ACKNOWLEDGEMENTS

The preparation of this CAFR in a timely manner is made possible by the dedicated teamwork of VCERA staff under the leadership, dedication, and support of the VCERA Board. I am sincerely grateful to the VCERA Board and staff, as well as our professional service providers, who perform so diligently to ensure the successful operation and financial soundness of VCERA.

Respectfully submitted,

udall)

Linda Webb Retirement Administrator



Government Finance Officers Association

# Certificate of Achievement for Excellence in Financial Reporting

Presented to

**Ventura County** 

**Employees' Retirement Association** 

California

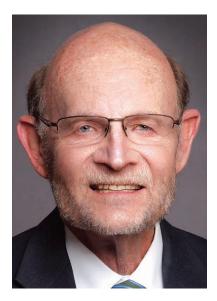
For its Comprehensive Annual Financial Report for the Fiscal Year Ended

June 30, 2017

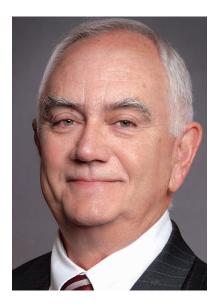
Christophen P. Morrill

Executive Director/CEO

# INTRODUCTORY SECTION MEMBERS OF THE BOARD OF RETIREMENT



WILLIAM W. WILSON Vice-Chair Appointed by Board of Supervisors



STEVEN HINTZ Ex-Officio Member Treasurer-Tax Collector County of Ventura

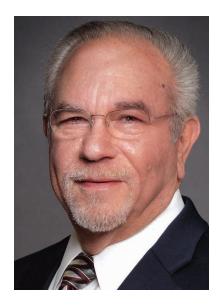


**Chair (vacant)** Alternate Elected by Safety Members

PETER C. FOY Appointed by Board of Supervisors



**ROBERT BIANCHI** Appointed by Board of Supervisors



MICHAEL SEDELL Appointed by Board of Supervisors

# MEMBERS OF THE BOARD OF RETIREMENT

CONTINUED



**CRAIG WINTER** Elected by General Members



**MAEVE FOX** Elected by General Members



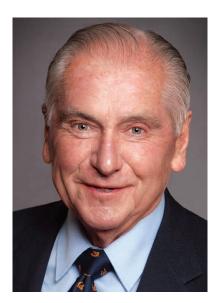
**ARTHUR E. GOULET** Elected by Retired Members



**CHRIS JOHNSTON** Elected by Safety Members

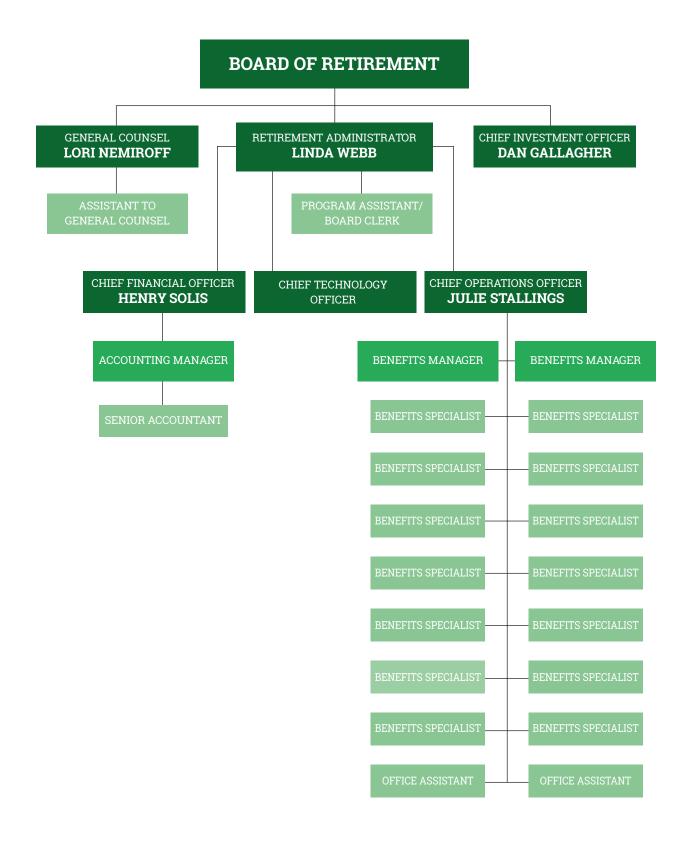


WILLIAM HOAG Alternate Elected by Retired Members



**ED McCOMBS** Alternate Appointed by Board of Supervisors

# INTRODUCTORY SECTION 2018 ORGANIZATION CHART



## LIST OF PROFESSIONAL CONSULTANTS

### ACTUARY

Segal Consulting

### CUSTODIAN

State Street Bank and Trust

### INDEPENDENT AUDITOR

Brown Armstrong Accountancy Corporation

#### INVESTMENT CONSULTANT

NEPC, LLC Abbott Capital Management, LLC

### LEGAL COUNSEL

Nossaman, LLP Hanson Bridgett LLP

#### **TECHNICAL SUPPORT**

Automatic Data Processing Information Technology Services of the County of Ventura Brentwood IT Velosio Vitech Systems, Inc.

Please refer to the Schedule of Investment Managers on page 58 for investment professionals who provide services to VCERA.



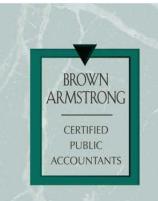


Agriculture is a thriving industry with deep historical roots in Ventura County. Despite residential and commercial development in the cities, major farming areas remain in rural Moorpark, rural Ventura, the Oxnard Plain and the Santa Clara River Valley. Valued at \$2.1 billion in 2017, Ventura County agriculture is led by its chief product, strawberries—a \$654 million crop—followed by lemons, celery, nursery stock, raspberries and avocados. Unfortunately, future avocado harvests will suffer due to recent fires that charred local fields.



Lettuce field in Oxnard (photo by fiveeightfour)

Freshly picked, local strawberry (photo by Benjamin44)



# BROWN ARMSTRONG

Certified Public Accountants

#### INDEPENDENT AUDITOR'S REPORT

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

#### Report on the Financial Statements and the Other Information

We have audited the accompanying Statement of Fiduciary Net Position of Ventura County Employees' Retirement Association (VCERA) as of June 30, 2018, the related Statement of Changes in Fiduciary Net Position for the year then ended, and the related notes to the financial statements, which collectively comprise VCERA's basic financial statements as listed in the table of contents. We have also audited the Schedule of Cost Sharing Employer Allocations of VCERA and the Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total employer pension expense (other information) as of and for the year ended June 30, 2018 (specified column totals), listed as other information in the table of contents.

### Management's Responsibility for the Financial Statements and the Other Information

Management is responsible for the preparation and the fair presentation of these financial statements and the other information 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 and the other information that are free from material misstatement, whether due to fraud or error.

#### Auditor's Responsibility

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

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements and other information. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements and other information, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to VCERA's preparation and fair presentation of the financial statements and other information 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 VCERA's internal control. Accordingly, we express no such

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REGISTERED with the Public Company Accounting Oversight Board and MEMBER of the American Institute of Certified Public Accountants 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 basic financial statements and other information.

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

#### Opinions

In our opinion, the basic financial statements and other information referred to above present fairly, in all material respects, the fiduciary net position of VCERA as of June 30, 2018, and the respective changes in fiduciary net position for the year then ended, and the Schedule of Cost Sharing Employer Allocations of VCERA for the year ended June 30, 2018; and the Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total employer pension expense (specified column totals), listed as other information in the table of contents, in accordance with accounting principles generally accepted in the United States of America.

#### **Other Matters**

#### Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the required supplemental information (RSI), as noted in the table of contents, be presented to supplement the basic financial statements. Such information, although not part of the basic financial statements, is required by the Governmental Accounting Standards Board (GASB), who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the RSI 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 Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise VCERA's basic financial statements. The other supplementary information and the introductory, investment, actuarial, and statistical sections, as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The other supplementary information, as noted in the table of contents, is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplementary information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

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

#### Report on Summarized Comparative Information

We have previously audited VCERA's June 30, 2017 financial statements, and our report dated December 20, 2017, expressed an unmodified opinion on those audited financial statements. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2017, is consistent in all material respects, with the audited financial statements from which it has been derived.

#### Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated December 31, 2018, on our consideration of VCERA's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering VCERA's internal control over financial reporting and compliance.

BROWN ARMSTRONG ACCOUNTANCY CORPORATION

Brown Armstrong Secountancy Corporation

Bakersfield, California December 31, 2018

# MANAGEMENT'S DISCUSSION AND ANALYSIS

The following review of the results of Ventura County Employees' Retirement Association's (VCERA or the Plan) operations and financial condition for the fiscal year ended June 30, 2018, should be read in conjunction with the Letter of Transmittal found in the Introductory Section of the report and with the required financial statements that follow this discussion and analysis.

### HIGHLIGHTS

- The Net Position Restricted for Pensions (Net Position) at the close of June 30, 2018 was \$5.4 billion. All of the net position is available to meet VCERA's ongoing obligations to plan participants and their beneficiaries.
- VCERA's total Net Position Restricted for Pensions increased by \$432.2 million, or 8.7%. The increase for the fiscal year ended June 30, 2018 continues to be primarily driven by positive investment returns.
- Total additions, as reflected in the Statement of Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2018 are \$717.6 million. This total is comprised of employer and plan member contributions of \$271.7 million, net investment gain of \$445.7 million and net securities lending income of \$180 thousand.
- Total deductions, as reflected in the Statement of Changes in Fiduciary Net Position, increased to \$285.4 million, or 7.2%, from the prior year.
- VCERA's funded status, as measured by the actuarial value of assets divided by the actuarial value of accrued liabilities, improved from 86.9% to 87.8%.

### OVERVIEW OF THE FINANCIAL STATEMENTS

The following discussion and analysis are intended to serve as an introduction to VCERA'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 VCERA to report using the full accrual basis of accounting. VCERA complies with all material requirements of these pronouncements. VCERA's basic financial statements are comprised of the following components:

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

The **Statement of Fiduciary Net Position** is 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.

The **Statement 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 VCERA's financial position over time.

The Statement of Fiduciary Net Position and the Statement of Changes in Fiduciary Net Position report information about VCERA's activities. These statements include all assets and liabilities using the full accrual basis 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, both realized and unrealized, are included in the "Investments" line item.

The Statement of Fiduciary Net Position and Statement of Changes in Fiduciary Net Position report VCERA's net position - restricted for pensions as one way to measure the Plan's financial position. ("Net position" is the difference between assets and liabilities.) Over time, increases and decreases in VCERA's net position are an indicator of whether its financial health is improving or deteriorating. Other factors, such as market conditions, should also be considered in measuring VCERA's overall financial health. Refer to VCERA's basic financial statements following this analysis.

### MANAGEMENT'S DISCUSSION AND ANALYSIS

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 VCERA'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 method and assumptions used to determine the required "actuarially determined contributions." This information is based on actuarial valuations and contributes to the understanding of the changes in the net pension liability of participating employers.

**Other Supplemental Information** includes the schedules of Administrative Expenses, Investment Expenses and Payments to Consultants. Refer to Other Supplemental Information section of this report.

**Other Information** includes schedules of Employer Pension Amounts Allocated by Cost Sharing Plan and Cost Sharing Employer Allocations of Net Pension Liability, which are presented immediately following the Other Supplemental Information section of this report.

### FINANCIAL ANALYSIS

During the fiscal year, the Plan's assets returned 8.9% (net of fees), higher than the Plan's 7.50% assumed rate of return (7.25% for periods after June 30, 2018). The private equity portfolio outperformed all other VCERA asset classes with a return of 17.9%. The U.S. equity portfolio gained 14.8%, the global equity portfolio gained 11.2%, and the non-U.S. equity portfolio gained 8.1%. The fixed income portfolio returned 0.1%. For other asset class returns refer to the Schedule of Investment Returns on page 55.

### RESERVES

Reserves are not required, nor recognized, under GAAP. These are not shown separately on the Statement of Fiduciary Net Position, but they equate to, and are accounts within, the Fiduciary Net Position restricted for pension benefits and are vital to VCERA's operations.

VCERA's reserves are established from contributions and the accumulation of investment income, after satisfying investment and administrative expenses (see Table on page that follows). Furthermore, VCERA has in place a five-year smoothing methodology for investment gains/(losses). Under GAAP, investments are stated at fair value instead of cost and include the recognition of the unrealized gains and losses in the current period. The difference between the fair value of assets inclusive of the cumulative unrealized gains and losses and the amounts reported from the five-year smoothing methodology (or actuarial value) comprises the Market Stabilization Reserve.

The Board has adopted an interest crediting and excess earning policy for the Plan to credit semi-annual interest to reserves and to determine the use of excess earnings, if any. On December 31, 2017 and June 30, 2018, all reserve accounts except for Member, Non-Vested Supplemental and Contingency reserve accounts are credited interest at a rate of one half of the actuarial assumption rate adopted by the Board, currently set at 3.75% (7.50% divided by two).

For Member reserves the board has established the rate for crediting interest to be set at one half the rate of the United States ten (10) year Treasury note as quoted in the Wall Street Journal for December 31st and June 30th not to exceed one half of the actuarial assumption rate adopted by the Board currently set at 3.75%. On December 31, 2017 and June 30, 2018, member accounts were credited interest at a rate of 1.205% and 1.424%, respectively, less than the actuarial assumption rate. The crediting of interest plus employer and member contributions and the increase in the fair value of investments in the fiscal year ended June 30, 2018, resulted in an increase of \$432.2 million in the total reserves as of June 30, 2018.

### MANAGEMENT'S DISCUSSION AND ANALYSIS

CONTINUED

(\$ in Thousands) Reserve Account	Iuma 20, 2019	Iuma 20, 2017
Reserve Account	June 30, 2018	June 30, 2017
Member	\$758,313	\$725,090
Employer Advance	1,696,067	1,514,758
Retired Member	2,768,422	2,561,943
Vested Fixed Supplemental	144,181	142,036
Non-Vested Supplemental	2,369	4,583
Death Benefits	15,794	15,244
Undistributed Earnings	-	-
Contingency	-	
Market Stabilization	11,317	594
Total Reserves	\$5,396,463	\$4,964,248

### NET POSITION RESTRICTED FOR PENSION BENEFITS

Net Position represents assets held to pay benefits earned by plan members. The Plan's Net Position increased from \$5.0 billion to \$5.4 billion in fiscal year 2018. Investments increased by approximately \$442.6 million in fiscal year 2018, as a result of an increase in the fair value of VCERA's investment portfolio. Current Assets increased by \$12.4 million in fiscal year 2018, mostly attributable to an increase in VCERA's cash position, an increase in receivables primarily from securities sold and an increase in cash collateral on loaned securities based on increased demand in VCERA securities by borrowers. Capital Assets decreased by \$1.4 million, representing the amortization/depreciation of the pension administration system and equipment. Total Liabilities increased by \$21.5 million in fiscal year 2018, due primarily to an increase in payables for securities purchased and an increase in obligations due under the securities lending program.

(\$ in Thousands)	June 30, 2018	June 30, 2017	Difference	2018-2017 % Change
Current Assets	\$199,288	\$186,847	\$12,441	6.7%
Investments, at fair value	5,283,436	4,840,788	442,648	9.1%
Capital Assets, Net	13,104	14,507	(1,403)	-9.7%
Total Assets	5,495,828	5,042,142	453,686	9.0%
Total Liabilities	99,365	77,895	21,470	27.6%
Net Position Restricted For Pensions	\$5,396,463	\$4,964,247	\$432,216	8.7%

### MANAGEMENT'S DISCUSSION AND ANALYSIS

CONTINUED

#### ADDITIONS AND DEDUCTIONS TO PLAN NET POSITION

The primary sources of assets to finance VCERA-paid benefits are investment income and the collection of employer and member contributions. Fiscal year 2018 results showed a 3.6% and 2.3% increase in employer and member contributions, respectively. Net investment income was lower than the prior year but still added \$445.9 million.

VCERA's assets are used primarily for the payment of pension benefits to retired members and their beneficiaries, refunds of member contributions, death benefits and plan administration costs. An increase in the number of retired members and an increase in the average pension benefit payment continued to be primary contributors to the increase in total deductions in fiscal year 2018.

Benefit payments grew by \$16.7 million or 6.5% in 2018, as the Plan continues, as expected, to experience an increase in retirements. Member refunds and death benefit payments increased from the prior year. Administrative/Other expenses represent cost of operating the plan. This category increased by 39.3% compared to the prior year due primarily to amortization/depreciation and ongoing costs of the pension administration system.

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(\$ in Thousands)	June 30, 2018	June 30, 2017	Difference	2018-2017 % Change
Employer Contributions	\$197,683	\$190,759	\$6,924	3.6%
Employee Contributions	74,044	72,395	1,649	2.3%
Net Investment Income	445,902	580,526	(134,624)	-23.2%
Total Additions (Declines)	717,629	843,680	(126,051)	-14.9%
Benefit Payments	272,288	255,581	16,707	6.5%
Member Refunds & Death Benefit Payments	5,430	5,164	266	5.2%
Administrative/Other Expenses	7,696	5,524	2,172	39.3%
Total Deductions	285,414	266,269	19,145	7.2%
Net Increase (Decrease)	432,215	577,411	(145,196)	-25.1%
Fiduciary Net Poistion Beginning of Year	4,964,248	4,386,837	577,411	13.2%
Fiduciary Net Position at End of the Year	\$5,396,463	\$4,964,248	\$432,215	8.7%

### NET PENSION LIABILITY OF PARTICIPATING EMPLOYERS

VCERA is subject to the provisions of GASB Statement No. 67 (GASB 67), *Financial Reporting for Pension Plans*, and VCERA's participating employers are subject to the provisions of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*. These standards require governmental employers to recognize their long-term obligation for pension benefits as a liability on their balance sheets, to recognize their annual pension expense as a comprehensive measurement of the annual cost of pension benefits, and requires VCERA 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 rate that reflects the expected return on Plan assets) over fiduciary net position (valued at fair value). It's a measurement of pension liabilities using market assets that provides a consistent and standardized

### MANAGEMENT'S DISCUSSION AND ANALYSIS

CONTINUED

methodology allowing comparability of data and increased transparency of the pension liability across all governmental entities. VCERA has complied with GASB 67 for the fiscal year ended June 30, 2018.

Based on the June 30, 2018 actuarial valuation, the NPL of participating employers on a fair value basis is \$725.5 million, a slight increase of approximately \$12.3 million from the prior year. Refer to Note 4 – Net Pension Liability of Participating Employers and the Required Supplementary Information sections of this report for further information.

### **REQUESTS FOR INFORMATION**

The financial report is designed to provide the Board of Retirement, VCERA membership, and other interested third parties with a general overview of VCERA's finances and to show accountability for the funds it receives.

Address questions regarding this report and/or requests for additional information to:

Chief Financial Officer, VCERA 1190 South Victoria Avenue, Suite 200 Ventura, CA 93003 VCERA.Info@Ventura.org

Respectfully submitted,

Henry C. Solis, CPA Chief Financial Officer

# **BASIC FINANCIAL STATEMENTS**

### STATEMENT OF FIDUCIARY NET POSITION

AS OF JUNE 30, 2018 WITH COMPARATIVE AMOUNTS FOR JUNE 30, 2017 (\$ IN THOUSANDS)

	June 30, 2018	June 30, 2017
ASSETS		
Cash and Cash Equivalents	\$119,099	\$113,846
Cash Collateral on Loaned Securities	47,615	44,705
Receivables		
Employer and Plan Member Contributions	10,505	9,566
Securities Sold	18,440	15,864
Accrued Interest and Dividends	3,593	2,832
Other	36	34
Total Receivables	32,574	28,296
Investments at Fair Value		
U.S. and Non-U.S. Equities	3,213,510	2,881,552
Fixed Income	942,574	945,944
Private Equity	276,326	208,663
Real Assets	851,026	804,629
Total Investments	5,283,436	4,840,788
Capital Assets, Net of Accumulated Depreciation and Amortization	13,104	14,507
Total Assets	5,495,828	5,042,142
LIABILITIES		
Payables for Securities Purchased	45,858	27,617
Payables and Other Liabilities	5,892	5,572
Securities Lending	47,615	44,705
Total Liabilities	99,365	77,894
Net Position Restricted for Pensions	\$5,396,463	\$4,964,248

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

# **BASIC FINANCIAL STATEMENTS**

CONTINUED

### STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

FOR THE FISCAL YEAR ENDED JUNE 30, 2018 WITH COMPARATIVE AMOUNTS FOR FISCAL YEAR ENDED JUNE 30, 2017 (\$ IN THOUSANDS)

	June 30, 2018	June 30, 2017
ADDITIONS		
Contributions		
Employer	\$197,683	\$190,759
Member	74,044	72,395
Total Contributions	271,727	263,154
Investment Income		
From Investing Activities:		
Net Appreciation (Depreciation) in Fair Value of Investments	416,909	551,251
Investment Income	44,410	43,833
Total Investing Activity Income (Loss)	461,319	595,084
Less Expenses from Investing Activities	(15,597)	(14,745)
Net Investing Activity Income (Loss)	445,722	580,339
From Securities Lending Activities:		
Securities Lending Income	955	575
Less Expenses from Securities Lending Activities:		
Borrower Rebates	(703)	(304)
Management Fees	(72)	(84)
Total Expenses from Securities Lending Activities	(775)	(388)
Net Securities Lending Income	180	187
Total Net Investment Income (Loss)	445,902	580,526
Total Additions	717,629	843,680
DEDUCTIONS		
Benefit Payments	272,288	255,581
Administrative Expenses	4,881	5,524
Other Expenses	2,815	-
Member Refunds & Death Benefits	5,430	5,164
Total Deductions	285,414	266,269
Net Increase/Decrease in Net Position	432,215	577,411

#### NET POSITION RESTRICTED FOR PENSIONS

Beginning of Year	4,964,248	4,386,837
End of Year	\$5,396,463	\$4,964,248

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

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# NOTES TO THE BASIC FINANCIAL STATEMENTS

### 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

**Reporting Entity.** Ventura County Employees' Retirement Association (VCERA, Association, Fund, or Plan), with its own governing board, is an independent governmental entity separate and distinct from the County of Ventura. Actuarially determined financial data for VCERA is included in the County of Ventura's Comprehensive Annual Financial Report in the "Notes to the Basic Financial Statements" section. The specific elements of the financial accountability criteria considered in defining a reporting entity are appointment of a voting majority of the Board of Retirement (Board) and either the ability to impose will, or possibility of providing a financial benefit or imposing a financial burden. Application of the financial accountability criteria to be included in VCERA's annual report.

**Basis of Accounting.** The accompanying financial statements are prepared on the full accrual basis of accounting. Investment income is recognized when earned. Administrative and investment expenses are recorded when incurred. Contributions, benefit payments, and refunds are recorded when due and payable in accordance with the terms of the Plan. The net appreciation (depreciation) in the fair value of investments is recorded as an increase (decrease) in investment income based upon investment valuations.

**Investment Valuation.** VCERA investments are presented at fair value. The majority of investments held by VCERA at June 30, 2018, is in the custody of, or controlled by, State Street Bank and Trust, VCERA's custodian. VCERA's investments consist of domestic and international fixed income, U.S. and Non-U.S. equities, private equity, and real assets. The diversity of the investment types that VCERA has entered into requires a wide range of techniques to determine fair value. The overall valuation processes and information sources by major asset classifications are as follows:

**Fixed Income.** Fixed income consists of Global negotiable obligations, which includes U.S. Government and U.S. Government-sponsored agencies' bonds, corporate debt, non-U.S. debt, and securitized offerings backed by residential and commercial mortgages. Certain securities, such as U.S. government bonds, have an active market for identical securities and can typically be valued using the closing or last traded price on a specific date. Other securities that are not as actively traded are valued by pricing vendors, which use modeling techniques that include market observable inputs required to develop a fair value. Typical inputs include recent trades, yields, price quotes, cash flows, maturity, credit ratings and other assumptions based upon the specifics of the asset type.

**Equities.** The majority of the Association's U.S. and Non-U.S. equity securities are actively traded on major stock exchanges or over-the-counter. Investments listed or traded on a securities exchange are valued at fair value as of the close of trading on the valuation day. Fair value is determined based on the last reported trade price on the exchange considered to be the primary market for such security. Listed investments that are not traded on a particular day are valued at the last known price deemed best to reflect their fair value. Investments not traded on a securities exchange, but which are traded in any other market or over the counter, are valued based on prices obtained from third party service providers.

**Private Equity.** Private equity investments are made on a fund-of-funds basis or as a direct investment. The underlying equity fund portfolio consists of securities in portfolio companies as well as marketable securities. Typically, the fair value of all investments is determined by the fund manager in good faith and in compliance with the definition of fair value under accounting principles generally accepted in the United States of America (GAAP) (Financial Accounting Standards Board (FASB) Accounting Standards Codification, Topic 820). In some circumstances, partnership agreements require reporting financial information and valuations in an accounting standard other than GAAP, such as under International Financial Reporting Standards.

The measure of fair value by the fund manager is typically conducted on a quarterly basis. Marketable securities are valued according to the most recent public market price with appropriate discounts to reflect any contractual or regulatory restriction upon sale. The fair value of each investment as reported does not

### NOTES TO THE BASIC FINANCIAL STATEMENTS

CONTINUED

necessarily represent the amount that may ultimately be realized, since such amounts depend upon future circumstances that cannot reasonably be determined until the position is actually liquidated.

The Fund's evaluation of the fair value of portfolio funds is based on the most recent available valuation information provided to it by the portfolio funds, adjusted for subsequent distributions from and capital contributions to such portfolio funds, if any. The evaluation of the fair value of co-investments is based on the most recent information available at the time of valuation ascribed to such investments by the sponsor partnership. If the manager does not agree with this valuation, i.e., holds different securities than the sponsor partnership, is unable to obtain the sponsor partnership's valuation, or has information that results in a different valuation, it may use its own internal evaluation of fair value. The assumptions are based upon the nature of the investment and the underlying business. The valuation techniques vary based upon investment type and involve a certain degree of expert judgment.

**Real Assets.** Real Assets are comprised of liquid alternatives and real estate. Liquid alternatives are comprised of publicly traded equities and fixed income instruments. Please refer to explanation of Fixed Income and Equities on page 19. Real estate is held either via a real estate limited partnership or a commingled fund. Real estate investments in a limited partnership or commingled fund are long-term and illiquid in nature. As a result, investors are subject to redemption restrictions, which generally limit distributions and restrict the ability of investors to exit an investment prior to its dissolution or liquidation of the underlying holdings. Interests in limited partnerships and commingled funds are valued by using the net asset value (NAV) of the portfolio. The most significant input into the NAV of such an entity is the value of its investment holdings. These holdings are valued by the general or managing partners on a continuous basis, audited annually and periodically appraised by an independent third party. The valuation assumptions are based upon both market and property specific inputs which are not observable and involve a certain degree of expert judgment.

**Receivables.** Receivables consist primarily of interest, dividends, and investments in transition, i.e., traded but not settled, and contributions owed by the employing entities as of June 30, 2018.

**Use of Estimates.** The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that 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 additions and deductions during the reporting period. Actual results could differ from those estimates.

**Securities Lending.** Cash collateral received in the course of securities lending transactions is recorded as a current asset of VCERA, and the obligation to repay the collateral is recorded as a current liability, in accordance with the requirements of Governmental Accounting Standards Board (GASB) Statement No. 28. In addition, gross earnings received on invested cash collateral are reported as Earnings, and borrower rebates and agent fees are recorded as Borrower Rebates, and Management Fees, respectively. This Earnings, Borrower Rebates, and Management Fees amounted to \$955,000, (\$703,000, and \$72,000), respectively, for the fiscal year ended June 30, 2018, an increase due to increased demand of securities loaned. Non-cash collateral, and the related repayment obligation, is not recorded on the books of the Association, as there is no ability to pledge or sell the collateral absent borrower default. See Note 3 for additional information on securities lending.

**Income Taxes.** The Internal Revenue Service (IRS) has ruled that plans such as VCERA qualify under Section 401(a) of the Internal Revenue Code and are not subject to tax under present income tax laws. On October 3, 2016, the IRS issued to VCERA a favorable Tax Determination Letter. Accordingly, no provision for income taxes has been made in the accompanying basic financial statements, as the Plan is exempt from federal and state income taxes under provisions of the Internal Revenue Code, Section 401(a), and the California Revenue and Taxation Code, Section 23701, respectively.

### NOTES TO THE BASIC FINANCIAL STATEMENTS

CONTINUED

#### **Implementation of new Accounting Pronouncement**

VCERA implemented all applicable new GASB pronouncements for the fiscal year ended June 30, 2018, as required by each statement. The most recent applicable pronouncement(s), effective for the year ended June 30, 2018, which did not have a material impact on VCERA's financial statements, are provided below.

**GASB Statement No. 75** – Accounting and Financial Reporting for Postemployment Benefits Other than *Pensions.* The provisions of this statement are effective for fiscal years beginning after June 15, 2017. There was no effect on the VCERA accounting or financial reporting as a result of implementing this standard.

**GASB Statement No. 81 –** *Irrevocable Split-Interest Agreements.* The requirements of this statement are effective for reporting periods beginning after December 15, 2016. There was no effect on the VCERA accounting or financial reporting as a result of implementing this standard.

**GASB Statement No. 85** – *Omnibus 2017.* The requirements of this statement are effective for reporting periods beginning after June 15, 2017. VCERA implemented GASB 85 for the year ended June 30, 2018, and the changes mandated by the statement are reflected in VCERA's financial statements and related disclosures. There was no material impact on VCERA's financial statements as a result of the implementation of GASB 85.

**GASB Statement No. 86** – *Certain Debt Extinguishment Issues.* The requirements of this statement are effective for reporting periods beginning after June 15, 2017. There was no effect on the VCERA accounting or financial reporting as a result of implementing this standard.

### Future Governmental Accounting Standards Board Statements

**GASB Statement No. 83** – *Certain Asset Retirement Obligations.* The requirements of this statement are effective for reporting periods beginning after June 15, 2018. The Plan has determined that this standard will not be applicable as the plan does not have these types of transactions.

**GASB Statement No. 84 –** *Fiduciary Activities.* The requirements of this statement are effective for reporting periods beginning after December 15, 2018. The Plan has determined that this standard will not be applicable as the plan does not have these types of transactions.

**GASB Statement No. 87** – *Leases.* The requirements of this statement are effective for reporting periods beginning after December 15, 2019. The Plan has determined that this standard will not be applicable as the plan does not have these types of transactions.

**GASB Statement No. 88** – *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements.* The provisions of this statement are effective for fiscal years beginning after June 15, 2018. The Plan has determined that this standard will not be applicable as the plan does not have these types of transactions.

**GASB Statement No. 89** – *Accounting for Interest Cost Incurred before the End of a Construction Period.* The provisions of this statement are effective for fiscal years beginning after December 15, 2019. The Plan has determined that this standard will not be applicable as the plan does not have these types of transactions.

**GASB Statement No. 90** – *Majority Equity Interests.* The requirements of this statement are effective for reporting periods beginning after December 15, 2018. The Plan has determined that this standard will not be applicable as the plan does not have these types of transactions.

### NOTES TO THE BASIC FINANCIAL STATEMENTS

CONTINUED

#### 2. PLAN DESCRIPTION

VCERA was established under the provisions of the California Government Code Sections 31450 et. seq., known collectively as the County Employees' Retirement Law of 1937. In September 2012, Governor Brown signed into law AB 240, known as the California Public Employees' Pension Reform Act of 2013 (PEPRA), California Government Code Section 7522 et. seq. Among other things, PEPRA provided lower benefit formulas to employees who became first-time VCERA members on or after January 1, 2013 ("PEPRA members"). VCERA operates a cost-sharing, multi-employer defined benefit pension plan (Plan) that includes eligible employees of the County of Ventura, Ventura County Superior Court, Ventura County Air Pollution Control District, Ventura Regional Sanitation District, and, since January 1, 2017, certain management employees of VCERA. (The latter four employers are not governed by the County of Ventura's Board of Supervisors.) The Plan is a pension trust fund of the County of Ventura.

VCERA provides service retirement, disability retirement, cost-of-living, death and survivor benefits to its members and qualified beneficiaries.

**Plan Membership.** Membership is mandatory for employees with biweekly work schedules of 64 hours or more. General members employed up to and including June 30, 1979, and certain management personnel who entered service prior to October 16, 2001, are designated as Tier 1 members. General members employed after June 30, 1979 through December 31, 2012, are designated as Tier 2 members. Safety members (eligible Sheriff, Probation, and Fire employees) employed through December 31, 2012, are designated as Tier 2 members. Safety members (eligible Sheriff, Probation, and Fire employees) employed through December 31, 2012, are designated as PEPRA members.

VCERA MEMBERSHIP	2018	2017
<b>Retired Members and Beneficiaries</b>	7,038	6,766
Active Members		
Vested	5,762	5,801
Non-Vested	2,849	2,835
Deferred Members		
Vested	1,506	1,534
Non-Vested	1,403	1,275
Total Membership	18,558	18,211

**Benefit Provisions.** State law along with resolutions and ordinances adopted by the Board of Retirement and Board of Supervisors establish the Plan's benefit provisions and contribution requirements.

**Retirement Allowances.** In general, all employees with membership prior to January 1, 2013, with ten or more years of service are entitled to an annual retirement allowance beginning at age 50. General members who entered VCERA membership on or after January 1, 2013, with five or more years of service are entitled to an annual retirement allowance beginning at age 52. Safety members who entered VCERA membership on or after January 1, 2013, with five or an annual retirement allowance beginning at age 52. Safety members who entered VCERA membership on or after January 1, 2013, with five or more years of service are entitled to an annual retirement allowance at age 50. Allowances are based upon members' benefit tiers, ages at retirement, final average compensation, and total years of retirement service credit. All members are eligible to retire at age 70 regardless of years of service.

**Disability Benefits.** A member who becomes permanently disabled from the performance of duties may be granted a disability retirement allowance by the VCERA Board of Retirement, payable for life. If the disability is the result of a job-related injury or illness, the member may be granted a service-connected disability retirement. If the disability is not the result of a job-related injury or illness, the member may receive a nonservice-connected disability retirement.

### NOTES TO THE BASIC FINANCIAL STATEMENTS

CONTINUED

**Death Benefits.** For a member who dies while in active service, VCERA pays a "basic death benefit" to a surviving spouse or beneficiary, consisting of the member's accumulated contributions and interest plus an amount equal to an average month's salary for every year of completed service, up to six months' salary. If the deceased member was vested, a surviving spouse may elect, in lieu of the basic death benefit, a monthly allowance equal to 60 percent of the monthly retirement allowance to which the deceased member would have been entitled had the member retired with a nonservice-connected disability as of the date of death. For a retired member, the benefits payable to a surviving spouse or other beneficiary depend upon the retirement option selected by the member at the time of retirement and whether the member's retirement was for service, nonservice-connected disability or service-connected disability. In addition, a lump-sum death benefit of \$5,000 is also payable to the named beneficiary of a deceased retired member.

**Supplemental Benefits.** On January 15, 1991, the Ventura County Board of Supervisors adopted a resolution to make operative California Government Code Section 31682. Adoption of this section permitted the Board to adopt a resolution to provide a vested supplemental benefit of \$108.44 per month to all eligible retirees. Effective March 17, 2003, the Board adopted a resolution providing an additional, non-vested \$27.50 per month to eligible retirees receiving the vested supplemental benefit described above. The non-vested supplemental benefit is provided pursuant to California Government Code Sections 31691.1 and 31692.

**Cost-of-Living Adjustment.** Cost-of-living adjustments (COLA), based upon changes in the Consumer Price Index for the Los Angeles area, of up to 3% per annum are made for all General Tier 1 and safety retirees. On February 28, 2005, the Board adopted regulations pursuant to California Government Code Section 31627 to provide a retiree COLA to general members who were represented by Service Employees International Union (SEIU) Local 721. The "SEIU COLA" is fixed at 2% annually and funded by employee contributions.

**Terminations.** Effective January 1, 2003, members with less than five years of service may elect to leave their accumulated member contributions on deposit until first eligible to receive benefits in accordance with California Government Code Section 31628.

### **3. INVESTMENTS**

**Investment Policy.** VCERA, in accordance with state statutes, invests in any form or type of investment, financial instrument, or financial transaction deemed prudent in the informed opinion of the Board. State Street Bank and Trust serves as the master custodian for the majority of VCERA's assets.

While VCERA recognizes the importance of capital preservation, it also adheres to the principle that varying degrees of investment risk are generally rewarded with compensating returns. The Board of Retirement's investment policy allows investment to the entire global fixed income market (maturities 1 to 30 years), including treasury and government agency bonds, corporate debt, mortgages, asset-backed securities, and international and emerging markets. The fixed income portfolio is largely comprised of investment-grade issues—rating of BBB- (Standard & Poor's) and Baa3 (Moody's) or higher—and may include, subject to limits, opportunistic investment in non-dollar and high-yield bonds. VCERA's investment policy recognizes that in the long term, equity returns will be greater than fixed income returns, but with expected greater volatility over shorter periods. Both domestic and international equity investing is permitted with exposure, subject to limits, to both the large and small capitalization ranges. Discretion is also permitted to international managers to invest, with limits, opportunistically in emerging market equities. Real estate investing is also allowed with the goal to provide competitive risk-adjusted returns as well as diversification benefits to VCERA's portfolio.

**Asset Allocation Policy and Expected Long-Term Rate of Return by Asset Class.** The allocation of investment assets within the Plan portfolio is approved by the Board, as outlined in the Investment Policy. Plan assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status

CONTINUED

for the benefits provided through the Fund. The table below displays the Board's adopted asset allocation policy as of June 30, 2018 and 2017, respectively.

ASSET CLASS	Actual Allocation 2018	Target Allocation 2018	Actual Allocation 2017	Target Allocation 2017
U.S. Equity	32.4%	26.0%	31.2%	28.0%
Non-U.S. Equity	16.0%	17.0%	16.1%	15.0%
Global Equity	11.1%	10.0%	10.9%	10.0%
U.S. Fixed Income	17.4%	16.0%	19.1%	20.0%
Private Debt	0.0%	3.0%	0.0%	0.0%
Global Fixed Income	0.0%	0.0%	0.0%	0.0%
Real Estate	0.0%	0.0%	7.9%	7.0%
Global Tactical Allocation	0.0%	0.0%	0.0%	0.0%
Real Assets	15.8%	18.0%	0.0%	0.0%
Private Equity	5.1%	10.0%	4.2%	10.0%
Liquid Alternatives	0.0%	0.0%	8.3%	10.0%
Cash and Equivalents	2.2%	0.0%	2.3%	0.0%
Total	100.0%	100.0%	100.0%	100.0%

Note - The asset allocation from the investment consultant will differ from actuary asset allocation. The actuary groups asset classes differently but they represent the same overall grouping noted here.

**Money-Weighted Rate of Return.** For the fiscal year ended June 30, 2018, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 8.92%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

**Time-Weighted Rate of Return.** For the fiscal year ended June 30, 2018, the annual time-weighted rate of return on pension plan investments, net of pension plan investment expense, was 8.90%. The time-weighted rate of return expresses investment performance, net of investment expense, while offsetting the effects of investment inflows and outflows.

**Investment Concentration.** VCERA does not hold investments in any one organization that represent 5% or more of the Plan's Fiduciary Net Position.

**Custodial Credit Risk.** VCERA considers investments purchased with a maturity of 12 months or less to be short-term investments. Although not having a policy that specifically addresses the limiting of custodial credit risk, VCERA, in practice, limits custodial credit risk for deposits by maintaining substantially all cash and short-term investments in external investment pools managed by the County of Ventura and State Street Bank and Trust. All other investment securities are held by State Street Bank and Trust in VCERA's name. VCERA maintains a commercial bank account with depository insurance coverage from the Federal Deposit Insurance Corporation (FDIC).

### NOTES TO THE BASIC FINANCIAL STATEMENTS

CONTINUED

As of June 30, 2018 and 2017, VCERA had the following cash and short-term investments:

(\$ in Thousands)	June 30, 2018	June 30, 2017
State Street Bank and Trust	\$111,535	\$109,726
County of Ventura Treasurer's Investment Pool	4,459	1,020
Commercial Bank Account	3,105	3,100
Total	\$119,099	\$113,846

**Credit Risk.** VCERA requires its total fixed income holdings to be rated at a minimum AA by Standard & Poor's (S&P), Aa by Moody's, or AA by Fitch Rating. Aggregated amounts by rating category using S&P ratings are as follows:

(\$ in Thousands) Rating Category	Assets held at June 30, 2018	Assets held at June 30, 2017
Separate Holdings:		
AAA	\$92,509	\$104,627
AA	30,958	27,696
A	80,597	62,389
BBB	115,804	106,365
BB	26,885	27,977
В	7,216	7,420
ССС	3,384	3,189
СС	148	-
D	486	852
No Rating/Commingled	101,014	80,991
Total Separate Holdings	\$459,001	\$421,506
(\$ in Thousands) Rating Category	Assets held at June 30, 2018	Assets held at June 30, 2017
Pooled Investments:		
AAA	\$428,183	\$402,705
AA	96,649	95,580
A	55,800	64,010
BBB	58,114	73,204
BB	24,112	19,449
В	9,463	9,392
CCC	1,412	1,322
сс	-	108
Total Pooled Investments	\$673,733	\$665,770
Total Portfolio	\$1,132,734	\$1,087,276

Overall, the Plan's fixed income holdings were rated AA at June 30, 2018, and AA at June 30, 2017.

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**Interest Rate Risk.** VCERA recognizes the importance of managing its exposure to interest rate risk and has developed a policy to limit the duration of VCERA's fixed income portfolio to ±20% of the broad fixed income market as defined by the Barclays Capital Aggregate Bond Index and Barclays Global Aggregate Bond Index. Duration is an investment's exposure to fair value change arising from a change in interest rates, by investment category. The amounts held at June 30, 2018 and 2017 are as follows:

(\$ in Thousands) Category	Assets held at June 30, 2018	Duration (Years)	Assets held at June 30, 2017	Duration (Years)
Treasury	\$375,693	3.9	\$304,233	3.2
Agency	14,152	0.7	21,023	0.6
Mortgage-Backed	284,622	3.4	267,564	3.1
Asset-Backed	48,627	1.2	40,342	0.5
Credit	356,200	4.4	356,325	4.2
Foreign	50,882	5.0	48,688	4.4
Other	2,559	7.6	49,099	0.4
Total	\$1,132,735	3.8	\$1,087,274	3.1

The duration for the Barclays Capital Aggregate Bond Index as of June 30, 2016 and 2017, was 5.8 years and 5.7 years, respectively.

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**Foreign Currency Risk.** Foreign Currency Risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or deposit. VCERA's authorized managers are permitted to invest in approved countries or regions, as stated in their respective investment guidelines.

The following schedule represents VCERA's exposure to Foreign Currency Risk in U.S. dollars. VCERA is invested in several non-U.S. commingled funds. This means VCERA owns units of commingled funds, and the fund holds actual securities and/or currencies. The values shown include VCERA's pro rata portion of non-U.S. commingled fund holdings.

(\$ in Thousands) Currency	Fixed Income at June 30, 2018	Equities at June 30, 2018	Fixed Income at June 30, 2017	Equities at June 30, 2017
Australian Dollar	\$ -	\$55,803	\$ -	\$46,197
British Pound	331	190,662	77	168,068
Canadian Dollar	96	57,896	77	55,353
Danish Krone	-	18,342	-	17,774
Euro	(522)	284,700	(883)	263,968
Hong Kong Dollar	-	45,162	-	54,327
Japanese Yen	23	174,558	165	181,514
Mexican Peso		5,079		6,005
New Zealand Dollar	-	1,349	-	1,406
Norwegian Krone	136	15,831	1,457	11,313
South African Rand	273	17,777	-	15,498
Singapore Dollar	-	19,823	(473)	19,412
South Korean Won	-	33,444	-	31,933
Swedish Krona	-	16,481	730	19,912
Swiss Franc	-	80,675	-	78,724
Other/Emerging Markets	9,069	204,473	11,386	139,408
Total Securities Subject to Foreign Currency Risk	\$9,406	\$1,222,055	\$12,536	\$1,110,812

**Securities Lending.** VCERA, under provisions of state statutes, and its investment policy, authorizes State Street Bank and Trust to act as agent in lending VCERA's securities to broker-dealers and other entities in the form of a loan agreement. Borrowers were required to deliver collateral in an amount equal to not less than 100%, and typically 102%, of the fair value of securities borrowed.

As of June 30, 2018 and 2017, VCERA had no credit risk exposure because the amounts VCERA owed the borrowers exceeded the amounts the borrowers owed VCERA. State Street Bank and Trust indemnified VCERA by agreeing to purchase replacement securities, or return cash collateral, in the event a borrower failed to return a lent security or pay distributions while the security was on loan. VCERA and the borrowers maintained the right to terminate all securities lending transactions on demand. The cash collateral received on each loan was invested with cash collateral of other qualified tax-exempt plan lenders in a collective investment pool. Because loans were terminable at will, their maturity did not generally match the maturity of the investments made with cash collateral. VCERA cannot pledge or sell collateral securities without borrower default. As of June 30, 2018 and 2017, VCERA had securities on loan with a fair value of \$46.7 million and \$43.7 million, with cash collateral of \$47.6 million and \$44.7 million, respectively.

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VCERA's net securities lending income for the fiscal years ended June 30, 2018 and 2017 is as follows:

(\$ in Thousands)	June 30, 2018	June 30, 2017
Gross Income	\$955	\$575
Expenses		
Borrower Rebates	703	304
Management Fees	72	84
Net Securities Lending Income	\$180	\$187

**Concentration of Credit Risk.** VCERA, through policies developed and implemented by the Board, maintains the goal of having a well-diversified portfolio. As such, VCERA had no investments in any one named security that would represent more than 5% of total investments. Pooled investments and investments issued by or explicitly guaranteed by the U.S. government are exempt from this requirement.

**Derivative Financial Instruments.** As part of VCERA's investment policy, investment managers are allowed the use of derivatives. Derivatives are financial instruments that derive their value, usefulness, and marketability from an underlying instrument which represents direct ownership of an asset or of an issuer whose payments are based on or "derived" from the performance of an agreed upon benchmark. Values of derivatives change daily. VCERA's managers are required to mark-to-market derivative positions daily. Within VCERA's investment policy, specific guidelines are put forth with investment managers who invest in derivatives. Substitution, risk control, and arbitrage are the only derivative strategies permitted; speculation is prohibited. No contingent features are present. Derivatives are carried as assets when their fair value is positive and as liabilities when their fair value is negative. Gains and losses from derivatives are included in the Statement of Changes in Fiduciary Net Position. For financial reporting purposes, all of VCERA's derivates are classified as investment derivatives. A further discussion on VCERA's valuation procedures are contained in Note 1, *Summary of Significant Accounting Policies*. The following types of derivatives are permitted: futures contracts, currency forward contracts, options, and swaps.

**Futures Contracts.** A futures contract represents an agreement to buy (long position) or sell (short position) an underlying asset at a specified future date for a specified price. Payment for the transactions is delayed until a future date, which is referred to as the settlement or expiration date. Futures contracts are standardized contracts traded on organized exchanges.

**Forward Contracts.** A forward contract represents an agreement to buy or sell an underlying asset at a specified future date for a specified price. Payment for the transactions is delayed until the settlement or expiration date. A forward contract is a non-standardized contract that is tailored to each specific transaction. Forward contracts are privately negotiated and are intended to be held until the settlement date. Currency forward contracts are used to control currency exposure and facilitate the settlement of international security purchase and sale transactions.

**Option Contracts.** An option is a type of derivative security in which a buyer (purchaser) has the right, not the obligation, to buy or sell a specified amount of an underlying security at a fixed price by exercising the option before its expiration date. The seller (writer) has an obligation to buy or sell the underlying security if the buyer decides to exercise the option.

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**Swap Agreements.** A swap is an agreement between two or more parties to exchange a sequence of cash flows over a period of time in the future. No principal is exchanged at the beginning of the swap. The cash flows the counter parties exchange are tied to a "notional" or contract amount. A swap agreement specifies the time period over which the periodic payments will be exchanged. The fair value represents the gains or losses as of the prior marking-to-market, which are functions of general interest rate fluctuations.

The investment derivatives schedule listed below reports the related fair value amounts as of June 30, 2018 and 2017, the notional amounts for derivatives outstanding and net appreciation (depreciation) in fair value amounts as of June 30, 2018, classified by type.

(\$ in Thousands) Derivative Type	Notional Amount June 30, 2018	Fair Value June 30, 2018	Fair Value June 30, 2017	Change in Fair Value <sup>1</sup> 2018 - 2017
Future Contracts	\$360,915	\$-	\$-	\$23,348
Forward Contracts	2,329	157	(5)	(15)
Options Contracts	382	(35)	97	(85)
Credit Default Swaps	4,930	(225)	0	46
Interest Rate Swaps	104,883	(11)	(1,344)	2,335
Total Investment Derivatives	\$473,439	\$(114)	\$(1,252)	\$25,629

#### **Investment Derivatives Schedule**

<sup>1</sup>Change in fair value includes realized/unrealized gains and losses including those that were opened and closed during the current fiscal year.

All investment derivative positions are included as part of investments at fair value on the Statement of Fiduciary Net Position. All changes in fair value are reported as part of Net Appreciation/(Depreciation) in fair value of investments in the Statement of Changes in Fiduciary Net Position.

**Custodial Credit Risk.** VCERA's investments include collateral associated with derivatives activity. As of June 30, 2018, collateral for derivatives was \$19.5 million. The collateral margins are maintained in margin accounts at financial services firms that provide brokerage services. Each account is uninsured and is subject to custodial credit risk.

**Credit Risk.** VCERA is exposed to credit risk on investment derivatives that are traded over the counter and are reported in asset positions. Derivatives exposed to credit risk include currency forward contracts and swap agreements. As of June 30, 2018, the fair value of derivative investments subject to credit risk was (\$11 thousand), and at June 30, 2017, it was (\$1,344,000). VCERA would be exposed to the loss of the fair value of derivatives that are in asset positions and any collateral provided to the counterparty, net of the effect of applicable netting arrangements.

VCERA requires investment managers to have Master Agreements in place to minimize credit risk. Netting arrangements legally provide VCERA with a right of setoff in the event of bankruptcy or default by the counterparty. VCERA would be exposed to loss of collateral provided to the counterparty. Collateral provided by the counterparty reduces VCERA's credit risk exposure.

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The following Credit Risk Derivatives Schedule discloses the counterparty credit ratings of VCERA's investment derivatives in asset positions by type as of June 30, 2018. These amounts represent the maximum loss that would be recognized if all counterparties fail to perform as contracted, without respect to collateral or other security, or netting arrangement. The schedule displays the fair value of investments by credit rating in increasing magnitude to risk investments, classified by S&P's rating system. As of June 30, 2018, VCERA has a maximum amount of exposure to credit risk due to default of all counterparties of \$157 thousand.

#### **Credit Risk Derivatives Schedule**

(\$ in Thousands) Derivative Type	Fair Value June 30, 2018	Adjusted Rating		
		AA	Α	BBB
Forward Contracts	\$157	\$ -	\$40	\$117
Total	\$157	\$ -	\$40	\$117

**Interest Rate Risk.** Interest Rate Risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Interest Rate Swaps is an example of a derivative investment that is highly sensitive to interest rate changes. LIBOR refers to London Interbank Offering Rate. The following tables illustrate the investment maturity period and sensitivity to interest rate changes of these investments as of June 30, 2018.

(\$ in Thousands) Derivative Type		Investment Maturities (in Years)				
	Fair Value June 30, 2018	Less than 1	1-5	6-10	More than 10	
Credit Default Swaps Bought	\$(225)	\$ -	\$(225)	\$-	\$-	
Pay Fixed Interest Rate Swaps	366	-	-	59	307	
Receive Fixed Interest Rate Swaps	(377)	-	(311)	-	(66)	
Total	\$(236)	\$ -	\$(536)	\$59	\$241	

#### Derivative Instruments Highly Sensitive to Interest Rate Changes:

(\$ in Thousands) Derivative Type	<b>Receive Rates</b>	Payable Rate	Fair Value	Notional
Pay Fixed Interest Rate Swaps	Receive variable 03-month LIBOR	Pay fixed 2.63000%	\$296	\$4,394
Pay Fixed Interest Rate Swaps	Receive variable 03-month LIBOR	Pay fixed 2.95000%	11	3,525
Pay Fixed Interest Rate Swaps	Receive variable 03-month FEDL	Pay variable 3-month LIBOR	59	62,681
Receive Fixed Interest Rate Swaps	Receive fixed 2.25000%	Pay variable 3-month LIBOR	(177)	7,488
Receive Fixed Interest Rate Swaps	Receive fixed 2.63000%	Pay variable 3-month LIBOR	(66)	982
Receive Fixed Interest Rate Swaps	Receive fixed 7.35050%	Pay variable 1-month TIIE	(106)	6,493
Receive Fixed Interest Rate Swaps	Receive fixed 2.85000%	Pay variable 3-month LIBOR	(28)	19,320
Total Interest Rate Swaps			\$(11)	\$104,883

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**Foreign Currency Risk.** VCERA was exposed to foreign currency risk on investments in futures, swaps, and forward currency contracts denominated in foreign currencies that may be adversely affected by changes in the currency exchange rates. The following table lists the derivative investments held in foreign currencies as of June 30, 2018.

#### Foreign Currency Risk Schedule for Derivative Instruments

		Currency Forward	l Contracts		
(\$ in Thousands) Currency	Options	Net Receivables	Net Payables	Swap Agreement	Net Exposure
Yuan Renminbi	\$ -	\$ -	\$2	\$ -	\$2
Euro Currency Unit	-	-	67	-	67
Mexican Peso	-	-	10	(106)	(96)
South African Rand	-	-	78	-	78
Sub total	-	-	157	(106)	51
U.S. Dollar	(35)	-	-	(130)	(165)
Total	\$(35)	\$ -	\$157	\$(236)	\$(114)

**Commitments to Fund Partnerships**. As of June 30, 2018, the total capital commitments to fund partnerships were \$658.8 million. Of this amount, \$352.5 million remained unfunded and is not recorded on the VCERA Statements of Fiduciary Net Position as of June 30, 2018. The following table depicts the total commitments and unfunded commitments by asset class.

### Total Commitments and Unfunded Commitments to Fund Parterships by Asset Class as of June 30, 2018

(\$ in Thousands) Asset Class	Total Commitments	Unfunded Commitments
Private Equity	\$658,800	\$352,476
Total	\$658,800	\$352,476

**Fair Value Measurements.** VCERA categorizes its fair value measurements of its investments based on the fair value hierarchy established by generally accepted accounting principles (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. On the page that follows, the table depicts the fair value measurements as of June 30, 2018.

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#### Investments and Derivative Instruments Measured at Fair Value

		Quoted Prices in Active Markets for Identical Assets	Significant Other Observable Inputs	Significant Unobservable Inputs
(\$ in Thousands)	Tatal	Level 1	Long D	I amal D
Investments by Fair Value Level Debt Securities	Total	Level 1	Level 2	Level 3
Asset Backed Securities	\$56 005	\$-	\$56,327	\$668
Commercial Mortgage-Backed Securities	\$56,995 69,393	\$-	\$50,327 69,393	\$008
Corporate and Other Credit	226,988	-	226,988	-
Municipal Bonds	220,900		220,988	
U.S. Government Agency	104,937		104,937	-
Total Debt Securities	458,313		457,645	668
	400,010			000
Equity Securities				
U.S. Equity	13,596	13,466	130	-
Limited Partnerships	104,216	104,216	-	-
Preferred Stock	494	494	-	-
Total Equity Securities	118,306	118,176	130	-
Collateral from Securities Lending	47,615	-	47,615	-
Total Investments by Fair Value Level	\$624,234	\$118,176	\$505,390	\$668
Investments Measured at Net Asset Value (NAV)				
Fixed Income	\$673,974			
Equity				
U.S.	1,559,341			
Non-U.S.	865,705			
Global	598,302			
Real Assets	733,377			
Private Equity	276,118			
Total Investments Measured at NAV	4,706,817			
Total Investments	\$5,331,051			
Investment Derivative Instruments				
Forward Exchange Contracts	\$157	\$157	\$ -	\$ -
Options Contracts	(35)	(44)	9	
Credit Default Swaps	(225)	-	(225)	
Interest Rate Swaps	(11)	-	(11)	-
Total Investment Derivative Instruments	\$(114)	\$113	\$(227)	\$ -

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

## NOTES TO THE BASIC FINANCIAL STATEMENTS

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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. VCERA'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:

Debt securities classified in Level 2 of the fair value hierarchy are valued using the matrix pricing technique and 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 and proprietary pricing information.

Equity securities include domestic common and preferred stock and publicly traded master limited partnerships. Equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities.

Cash collateral received for securities lent is reinvested in investments, such as short-term government and high-quality corporate debt securities. These securities are classified in Level 2 of the fair value hierarchy using prices quoted in active markets for similar securities.

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

Fair value of investments in commingled fund vehicles of publicly traded securities are expressed as net asset value (NAV) and are provided by custodial banks using the best available pricing sources. Fair value of investments in real estate and private equity funds have been determined by their respective managers using a variety of different techniques, such as liquidity events, market bids, and property and company appraisals. Such fair value measurements are shown in the table that follows as of June 30, 2018.

	Fair Value Measurement Using			sing
(\$ in Thousands) Investment Type	Fair Value	Unfunded Commitments	Redemption Frequency (if Currently Eligible) <sup>1</sup>	Redemption Notice Period
Fixed Income	\$673,974		D, M	3-15 days
Equity				
U.S.	1,559,341		D	1 day
Non-U.S.	865,705		D, M	2-30 days
Global	598,302		D	1-2 days
Real Assets	733,377		D, Q	5-90 days
Private Equity	276,118	352,476	N/A	N/A
Total Investments Measured at NAV	\$4,706,817	\$352,476		

#### **Investments Measured at Net Asset Value**

<sup>1</sup>D = Daily, M = Monthly, Q = Quarterly, N/A = Not Available

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

## NOTES TO THE BASIC FINANCIAL STATEMENTS

CONTINUED

Investments in publicly traded equity, fixed income, and the liquid alternative strategies within the Real Assets category are made through commingled fund vehicles. For each commingled fund vehicle, valuations are expressed as a NAV. VCERA's investments in these vehicles are held as undivided interests in these commingled funds, represented as shares or units of ownership. Underlying securities in these commingled funds would be valued at Level 1 or 2 of the Fair Value hierarchy.

Real Estate investments within the Real Assets category generate income in addition to capital appreciation. In addition, they serve as a hedge against inflation, and help to diversify the portfolio. VCERA's real estate exposure is obtained through open ended commingled fund equity investment vehicles. These commingled funds are diversified across property types which include office, residential, commercial, industrial, and raw land. Property exposures are held in these vehicles primarily on a direct basis, but are also achieved through holdings in publicly traded Real Estate Investment Trusts (REITS). As above, for each commingled fund vehicle, valuations are expressed as a net asset value (NAV). VCERA's investments in these vehicles are held as undivided interests in these commingled funds, represented as shares or units of ownership. Underlying holdings in these commingled funds are determined by property appraisals, and as such would be valued at Level 3 of the Fair Value hierarchy.

VCERA's private equity portfolio is globally diversified, and consists of holdings in commingled fund of funds in a limited partnership structure. Each fund of funds invests in a diversified set of underlying private equity funds, each of which invests directly in portfolio companies. Underlying strategies include investments in primary, secondary, and co-investments. These investments are diversified across buyout, growth capital, venture capital, and various debt strategies, and further diversified by vintage year. For each limited partnership, valuations are expressed as a net asset value (NAV). VCERA's partnership interests in these vehicles are in proportion to its shares of each respective partnership. Underlying holdings in these limited partnership vehicles would be valued at Level 3 of the Fair Value hierarchy.

**Special Purpose Entities.** During the reporting period VCERA created Special Purpose Entities (SPEs) for use in Its investment portfolio.

As of June 30, 2018, the VCERA private equity portfolio utilized two Limited Liability Companies (LLC's). The following is a summary of the LLC's financial positions.

Limited Liability Companies Financial Position as of June 30, 2018 (\$ in Thousands)		
	2018	
Assets	\$541	
Less: Liabilities	-	
Net Assets	\$541	
Net Income	\$ -	

In October 2017, the VCERA Board approved creation of a Fund-of-One for direct private equity investments to be managed by Abbott Capital Management, LLC (Abbott). In November 2017, the VCERA Board approved the creation of two limited liability corporations (LLCs) to hold the direct private equity investments. No specific dollar amount of investment was committed for these LLCs as the private equity portfolio is managed in totality and Abbott determines whether the private equity is held directly or through the Fund-of-One.

## NOTES TO THE BASIC FINANCIAL STATEMENTS

CONTINUED

### 4. NET PENSION LIABILITY OF PARTICIPATING EMPLOYERS

The components of the Net Pension Liability (NPL) of the Plan at June 30, 2018 and 2017, were as follows:

(\$ in Thousands) Net Pension Liability	June 30, 2018	June 30, 2017
Total Pension Liability	\$6,121,953	\$5,677,421
Plan Fiduciary Net Position	5,396,463	4,964,248
Net Pension Liability	\$725,490	\$713,174
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	88.15%	87.44%

The NPL was measured as of June 30, 2018 and 2017. The Plan's Fiduciary Net Position (plan assets) was valued as of the measurement date while the Total Pension Liability (TPL) was determined based upon rolling forward the TPL from actuarial valuations as of June 2017 and 2016, respectively.

### **Actuarial Assumptions**

One of the general goals of an actuarial valuation is to establish contribution rates that fully fund the Plan's liabilities, and that, as a percentage of payroll, remain as level as possible for each generation of active members. In preparing the actuarial valuation, the actuary employs generally accepted actuarial methods and assumptions to evaluate the Plan's assets, liabilities, and future contributions required. The actuary incorporates member data and financial information provided by the Plan with economic and demographic assumptions made about the future to estimate the Plan's financial condition at a specified point in time. For example, the actuary develops assumptions about future investment returns, future inflation rates, future increases in salaries, expected retirement ages, life expectancy, and other relevant factors. VCERA's actuary calculates actuarially determined contributions every year and reviews with the Board the economic and demographic assumptions of the Plan every three years.

A key element in determining the Plan's liability is the projection of benefits, which is defined as all benefits estimated to be payable through the Plan to current active and inactive employees as a result of their past service and their expected future service. The type of benefits provided by the Plan at the time of each valuation are taken into consideration when benefits are projected.

The actuarial assumptions used to determine the Total Pension Liability as of June 30, 2018 were based on the results of the June 30, 2017 Review of Economic Assumptions and Actuarial Experience Study (Experience Study) adopted by the Board of Retirement in June 2018. For determining the Total Pension Liability, the investment return assumption used is net of investment expenses only and is not net of administrative expenses.

CONTINUED

The actuarial assumptions used to determine the total pension liability as of June 30, 2018 were based on the results of the most recent Actuarial Experience Study which covered the period from July 1, 2014 through June 30, 2017. These same assumptions were used in the June 30, 2018 actuarial valuation, which is used to determine contribution rates for funding purposes. Key methods and assumptions used in the latest actuarial valuation and the total pension liability are presented below.

#### Methods and assumptions used in Annual Actuarial Valuation and Total Pension Liability:

Valuation Date	June 30, 2018	
Actuarial Assumptions and Methods	(before the roll forward) to incl Board has adopted for use in using this revalued TPL in rol	vas remeasured by (1) revaluing the TPL as of June 30, 2017 ude the following actuarial assumptions that the Retirement the pension funding valuation as of June 30, 2018 and (2) ling forward the results from June 30, 2017 to June 30, 2018. tuarial assumptions were applied to all periods included in nt:
	Inflation	2.75%

Salary increases	3.75% to 11.75%, varying by service, including inflation
Investment rate of return	7.25%, net of pension plan investment expense, including inflation
Other assumptions	Same as those used in June 30, 2018 funding valuation

The TPL as of June 30, 2017 was measured as of June 30, 2016 using the same actuarial assumptions in the pension funding valuation as of June 30, 2017 and rolled forward the results from June 30, 2016 to June 30, 2017. In particular, the following actuarial assumptions were applied to all periods included in the June 30, 2017 measurement:

Inflation	3.00%
Salary increases	4.00% to 11.50%, varying by service, including inflation
Investment rate of return	7.50%, net of pension plan investment expense, including inflation
Other assumptions	Same as those used in June 30, 2017 funding valuation

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### Long-Term Real Rate of Return by Asset Class

The long-term expected rate of return on the Plan's investments for 2017 use a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and 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. The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before deducting investment expenses, used in the derivation of the long-term expected investment rate of return assumption, are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Large Cap U.S. Equity	27.04%	5.32%
Small Cap U.S. Equity	4.48%	6.07%
Developed International Equity	17.32%	6.68%
Emerging Market Equity	4.16%	8.87%
U.S. Core Fixed Income	9.00%	1.04%
Real Estate	8.00%	4.65%
Master Limited Partnerships	4.00%	6.31%
Absolute Return (Fixed Income)	7.00%	1.71%
Private Debt/Credit Strategies	3.00%	5.50%
Absolute Return (Risk Parity)	6.00%	4.63%
Private Equity	10.00%	8.97%
Total	100.00%	

Note: Long-term expected rate of return net of investment expenses is 7.25%. Also, the actuary groups asset classes differently than the investment consultant. While the asset class target allocation does not match the investment consultants, they are considered the same.

### **Discount Rate**

The discount rate used to measure the Total Pension Liability was 7.25% as of June 30, 2018 and 7.50% as of June 30, 2017. The projection of cash flows used to determine the discount rate assumed that Plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to actuarially determined contribution rates. For this purpose, only employee and employer contributions that are intended to fund benefits for current Plan members and their beneficiaries are included. Projected employer contributions that are intended to fund benefits from future Plan 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 for current plan members. Therefore, the long-term expected rate of return on Plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability as of both June 30, 2018 and 2017.

CONTINUED

The following table presents the Net Pension Liability of participating employers calculated using the current discount rate of 7.25% as of June 30, 2018 as well as the Net Pension Liability if the discount rate were 1.00% lower or 1.00% higher.

# Sensitivity of Net Pension Liability to Changes in Discount Rate (\$ in Thousands)

Net Pension Liability	1% Decrease	Current Discount Rate	1% Increase
	(6.25%)	(7.25%)	(8.25%)
June 30, 2018	\$1,564,365	\$725,490	\$34,036

### **5. CONTRIBUTIONS**

Employer and employee contribution rates are approved by VCERA's Board. Contribution rates are actuarially determined using the "Entry Age Actuarial Cost Method." According to this method, the "normal cost" is the level amount that would fund the projected benefit if it were paid annually from date of employment until retirement. The "Entry Age Actuarial Cost Method" is modified so that the employer's total normal cost is expressed as a level percentage of payroll. The level percentage of payroll method is also used to amortize the unfunded actuarial accrued liability (UAAL). For the June 30, 2018 valuation, the period for amortizing the UAAL is fixed at 15 years and the period for amortizing the future actuarial gains and losses is over its own declining 15-year period.

VCERA's employers were required to contribute \$197.7 million and \$190.8 million in actuarially determined contributions for the fiscal years ending June 30, 2018 and 2017, respectively.

Member contributions range from 5.96% to 13.76% depending upon members' benefit tier. In addition to the actuarially determined contributions, certain participating employers contribute, pursuant to California Government Code Section 31581.1, a portion of the contributions normally required of General Tier 1 members. These employer-paid member contributions do not become part of the accumulated contributions of the member, but vest in the Employer Advance Reserve. These contributions are included in the employers' total.

## 6. RESERVES

VCERA's reserves are composed of member contributions, employer contributions, and accumulated investment income. The reserves do not represent the present value of assets needed to satisfy retirements and other benefits as they come due. VCERA's major reserves are as follows:

**Member Reserve.** Represents members' accumulated contributions. Additions include member contributions and interest credited; deductions include transfers to Retired Member Reserve and refunds.

**Employer Advance Reserve.** Represents the total employer contributions made on behalf of current active members for future retirement benefits. Additions include employer contributions and interest credited; deductions include transfers to Retired Member Reserve and death benefits.

**Retired Member Reserve.** Represents total accumulated transfers from Member Reserve and Employer Advance Reserve and interest credited, less benefit payments made to retirees.

**Vested Fixed Supplemental Reserve.** Represents the funding set aside to pay the vested supplemental retirement benefit of \$108.44 monthly to all eligible retirees. Additions include investment income designated by the Board and interest credited; deductions include benefit payments made to eligible retirees.

**Non-Vested Supplemental Reserve.** Represents the funding set aside to pay the non-vested supplemental retirement benefit of \$27.50 monthly to all eligible retirees. Additions include investment income designated by the Board; deductions include benefit payments made to eligible retirees.

CONTINUED

**Death Benefit Reserve.** Represents funds designated to pay death benefits pursuant to California Government Code Section 31789.5. Additions include funding from investment income and interest credited; deductions include benefits paid.

**Contingency Reserve.** Represents earnings of the fund in excess of the total interest credited to reserves in an amount up to 1.0% of the total market value of assets to provide for future deficiencies in interest earnings, losses on investments, and other contingencies pursuant to Government Code Section 31592.2.

**Undistributed Earnings Reserve.** Represents funds from current and prior year earnings not previously credited to other Valuation, Non-Valuation, and Supplemental Benefit Reserves in excess of the statutory 1.0% Contingency Reserve.

**Market Stabilization Reserve.** Represents the difference between the current market value of assets and the actuarial value of assets used to establish the above reserves.

Reserve balances as of June 30, 2018 and 2017, are as follows:

(\$ in Thousands) Beserve Account

Reserve Account	June 30, 2018	June 30, 2017
Member	\$758,313	\$725,090
Employer Advance	1,696,067	1,514,758
Retired Member	2,768,422	2,561,943
Vested Fixed Supplemental	144,181	142,036
Non-Vested Supplemental	2,369	4,583
Death Benefits	15,794	15,244
Undistributed Earnings	-	-
Contingency	-	-
Market Stabilization	11,317	594
Total Reserves	\$5,396,463	\$4,964,248

## NOTES TO THE BASIC FINANCIAL STATEMENTS

CONTINUED

### 7. ADMINISTRATIVE EXPENSES

As permitted by GC Section 31580.2(a), the Board adopts an annual budget, financed from investment income, covering the entire expense of Plan administration. The California Government Code provides that administrative expenses incurred in any year are not to exceed the greater of 21/100th of one percent of the accrued actuarial liability for VCERA or \$2,000,000, as adjusted annually by the amount of the annual COLA. California Government Code Section 31580.2(b) provides that expenditures for software, hardware, and computer technology are not considered a cost of administration. Administrative expenses incurred in fiscal years ended June 30, 2018 and 2017 were within the limits established by the California Government Code.

(\$ in Thousands)	June 30, 2018	June 30, 2017
Accrued Actuarial Liability (AAL) <sup>1</sup>	\$5,398,756	\$5,178,157
Statutory Limitation for Administrative Expense (AAL x 0.21%)	11,337	10,874
Administrative Expenses Subject to Statutory Limit	4,881	5,524
Excess of Limitation over Actual Administrative Expenses	\$6,456	\$5,350
Actual Administrative Expenses as a percentage of AAL	0.09%	0.11%

<sup>1</sup> The AAL, as determined by VCERA's actuary each year, is used to calculate the subsequent fiscal year's administrative budget authorization. The AAL as of June 30, 2016 and 2015, was approved by the Board in January 2017 and 2016, respectively, and used to establish the administrative expenditure budgets for the fiscal years ended June 30, 2018 and 2017, as shown in the table..

## 8. LEASE AGREEMENT

Effective April 1, 2011, VCERA entered into a seven-year extension of a commercial lease for office space with the option to renew for two additional five-year periods. In May 2017, VCERA extended the existing lease term for one additional year to March 31, 2019. Payments over the remaining lease term total \$161,100.

## 9. COMMITMENTS AND CONTINGENCIES

**Capital Commitments.** VCERA's private equity investment managers identify and acquire investments on a discretionary basis. Each manager's investment activity and discretion is controlled by the contract, subscription agreement, limited partnership agreement and/or other contractual documents applicable to each manager. Such investments are further restricted by the amount of capital allocated or committed to each manager. VCERA has contracted with a private equity consultant to assist in managing a portion of the private equity program, which includes full discretion in manager selection. In addition, the Board retains discretionary control to approve private equity managers and committment amounts as often as necessary to reflect VCERA's investment preferences, as well as changes in market conditions. The table on the page that follows lists Outstanding Capital Commitments as of June 30, 2018.

## NOTES TO THE BASIC FINANCIAL STATEMENTS

CONTINUED

#### Outstanding Capital Commitments June 30, 2018 (\$ in Thousands)

Investment Manager	Investment Type	Total Capital Commitment	Outstanding Capital Commitment
Abbott Secondaries Opportunities, LP.	Private Equity	\$25,000	\$18,791
Adams Street 2010 U.S. Fund	Private Equity	42,500	5,057
Adams Street 2010 Non-U.S. Developed Markets Fund	Private Equity	25,500	3,175
Adams Street 2010 Non-U.S, Emerging Markets Fund	Private Equity	8,500	1,122
Adams Street 2010 Direct Fund	Private Equity	8,500	454
Adams Street 2013 Global Fund	Private Equity	75,000	21,750
Adams Street 2016 Global Fund	Private Equity	60,000	43,050
Battery Ventures XII	Private Equity	9,050	8,516
Battery Ventures XII Side Fund	Private Equity	5,050	4,999
Buenaventure One , LLC	Private Equity	37,250	36,714
Clearlake Capital Partners V	Private Equity	9,950	7,761
CVI Credit Value Fund IV	Private Equity	30,000	27,000
Drive Capital Fund II	Private Equity	15,000	10,279
GTCR Fund XII	Private Equity	30,000	29,256
Insight Ventures Partners X	Private Equity	25,000	22,250
HarbourVest - Dover Street VIII	Private Equity	67,500	7,763
HarbourVest - Dover Street IX	Private Equity	60,000	40,800
HarbourVest - Co-Investment Fund IV	Private Equity	30,000	9,041
M/C Partners VIII	Private Equity	10,000	10,000
Pantheon Global Secondary Fund IV	Private Equity	15,000	5,040
Pantheon Global Secondary Fund V	Private Equity	50,000	19,658
The Resolute Fund IV	Private Equity	20,000	20,000
Total Outstanding Commitments			\$352,476

#### **10. SUBSEQUENT EVENTS**

Management has evaluated subsequent events through December 31, 2018, which is the date the financial statements were issued, and determined that there are no reportable events.

## **REQUIRED SUPPLEMENTARY INFORMATION**

### SCHEDULE OF CHANGES IN NET PENSION LIABILITY OF PARTICIPATING EMPLOYERS

SCHEDULE OF CHANGES			OUSANDS)		on Armo I		0
		June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014	June 30, 2013
Total Pension Liability							
Service cost		\$138,877	\$132,490	\$129,269	\$124,408	\$122,896	\$118,839
Interest		427,800	405,195	388,936	366,917	355,299	340,000
Changes of benefit terms		-	-	-	-	-	-
Differences between expected and actual experience		26,564	(51,058)	(39,598)	(101,178)	(48,740)	(94,020)
Changes of assumptions		129,009	-	-	234,843	-	-
Benefit Payments, including refunds of member contributions		(277,718)	(260,745)	(246,403)	(233,695)	(223,532)	(209,958)
Net Change in Total Pension Liability		444,532	225,882	232,204	391,295	205,923	154,861
Total Pension Liability - Beginning		5,677,421	5,451,539	5,219,335	4,828,040	4,622,117	4,467,256
Total Pension Liability - Ending (A)		\$6,121,953	\$5,677,421	\$5,451,539	\$5,219,335	\$4,828,040	\$4,622,117
Plan Fiduciary Net Position							
Contributions- employer <sup>1</sup>		\$197,638	\$190,712	\$177,830	\$175,099	\$169,703	\$150,688
Contributions- members <sup>1</sup>		74,089	72,442	69,350	63,679	46,674	44,464
Net investment income		445,902	580,526	25,739	88,680	658,581	436,638
Benefit Payments, including refunds of member contributions		(277,718)	(260,745)	(246,403)	(233,695)	(223,532)	(209,958)
Administrative expense		(4,881)	(5,524)	(4,474)	(3,854)	(4,045)	(3,944)
Other		(2,815)	-	-	-	-	-
Net Change in Plan Fiduciary Net Position		432,215	577,411	22,042	89,909	647,381	417,888
Plan Fiduciary Net Position - Beginning		4,964,248	4,386,837	4,364,795	4,274,886	3,627,505	3,209,617
Plan Fiduciary Net Position - Ending (B)		\$5,396,463	\$4,964,248	\$4,386,837	\$4,364,795	\$4,274,886	\$3,627,505
Net Pension Liability - Ending	A-B=C	\$725,490	\$713,174	\$1,064,702	\$854,540	\$553,154	\$994,612
Plan fiduciary net position as a percentage of the total pension liability	B/A	88.15%	87.44%	80.47%	83.63%	88.54%	78.48%
Covered payroll (D) <sup>2</sup>		\$736,994	\$716,033	\$688,233	\$665,086	\$642,779	\$632,146
Net position liability as a percentage of covered payroll	C/D	98.44%	99.60%	154.70%	128.49%	86.06%	157.34%

Note - Data as of June 30, 2009 through June 30, 2012 are not available in comparable format.

<sup>1</sup> Actuarially determined contributions exclude employer paid member contributions.

<sup>2</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

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## **REQUIRED SUPPLEMENTARY INFORMATION**

CONTINUED

#### SCHEDULE OF EMPLOYER CONTRIBUTIONS

(\$ IN THOUSANDS)

Fiscal Year Ended June 30	Actuarially Determined Contributions <sup>1</sup>	Actual Employer Contributions <sup>2</sup>	Contribution Deficiency/ (Excess)	Covered Payroll <sup>3</sup>	Contributions as a % of Covered Employee Payroll
2018	\$197,638	\$197,638	\$ -	\$736,994	26.82%
2017	190,712	190,712	-	716,033	26.63%
2016	178,748	178,748	-	688,233	25.97%
2015	173,269	173,269	-	665,086	26.05%
2014	161,247	161,247	-	642,779	25.09%
2013	142,370	142,370	-	632,146	22.52%
2012	132,386	132,386	-	637,037	20.78%
2011	111,585	111,585	-	654,829	17.04%
2010	97,324	97,324	-	634,777	15.33%
2009	105,278	105,278	-	599,173	17.57%

<sup>1</sup> All "Actuarially Determined Contributions" through June 30, 2014 were determined as the "Annual Required Contribution" as required by GASB 25 and 27.

<sup>2</sup> Actuarially Determined Contributions exclude employer paid member contributions.

<sup>3</sup> Covered employee payroll represents only compensation earnable and pensionable compensation that go into the determination of a retirement benefit.

#### SCHEDULE OF INVESTMENT RETURNS

Fiscal Year Ended June 30	Annual Money Weighted Rate of Return, Net of Investment Expense	
2018	8.92%	
2017	12.27%	
2016	-2.00%	
2015	1.70%	
2014	18.80%	
2013	13.20%	

Note: Money-Weighted Rate of Return is calculated as the internal rate of return on pension plan investments, net of investment expenses, adjusted for changing amounts actually invested.

Trend Information: Schedule will ultimately show information for 10 years. Additional years will be presented as they become available prospectively.

## **REQUIRED SUPPLEMENTARY INFORMATION**

CONTINUED

#### LATEST ACTUARIAL VALUATION OF PLAN ASSETS AND LIABILITIES

#### Methods and assumptions used to establish "actuarially determined contribution" rates:

Valuation Date	Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported.				
Actuarial Cost Method	Entry Age Actuarial Cost Method				
Amortization Method	Level percent of payroll				
Remaining Amortization Period	15 years for Unfunded Actuarial Accrued Liability (UAAL) as of June 30, 2004 are separately amortized over a 15-year closed period effective with that val- uation. Effective June 30, 2012, any changes in UAAL due to actuarial gains or losses or due to plan amendments (with the exception of a change due to retirement incentives) will be amortized over a 15-year closed period effective with that valuation (up to a 5-year closed period for retirement incentives). Any change in UAAL due to changes in actuarial assumptions or methods will be amortized over a 20-year closed period effective with that valuation.				
Asset Valuation Method	Market value of assets less unrecognized returns in each of the last ten semi-annual accounting periods. Unrecognized returns are equal to the dif- ference between the actual market return and the expected return on market value and are recognized over a five-year period. The Actuarial Value of Assets is reduced by the value of the Supplemental Medical Benefit Reserve and the statutory Contingency Reserve.				
Actuarial Assumptions:	June 30, 2018 Valuation Date	June 30, 2017 Valuation Date			
Investment rate of return	7.25% net of pension plan administra- tion and investment expenses, includ- ing inflation	7.50% net of pension plan administra- tion and investment expenses, includ- ing inflation			
Investment rate of return Inflation rate	tion and investment expenses, includ-	tion and investment expenses, includ-			
	tion and investment expenses, includ- ing inflation	tion and investment expenses, includ- ing inflation			
Inflation rate Real across-the-board	tion and investment expenses, includ- ing inflation 2.75%	tion and investment expenses, includ- ing inflation 3.00%			
Inflation rate Real across-the-board salary increase	tion and investment expenses, includ- ing inflation 2.75% 0.50% General: 3.75% to 10.25% Safety: 3.95% to 11.75% Increase of 2.75% per year; retiree COLA increases due to CPI are subject to 3.00% maximum change per year	tion and investment expenses, includ- ing inflation 3.00% 0.50% General: 4.00% to 9.50%			

<sup>1</sup> Includes inflation at 2.75% plus real across-the-board salary increases of 0.50% plus merit and longevity increases for June 30, 2018 and 3.00% plus real across-the-board salary increases of 0.50% plus merit and longevity increases for June 30, 2017.

## OTHER SUPPLEMENTARY INFORMATION

### SCHEDULE OF ADMINISTRATIVE EXPENSES

FOR THE FISCAL YEAR ENDED JUNE 30, 2018 WITH COMPARATIVE AMOUNTS FOR JUNE 30, 2017 (\$ IN THOUSANDS)

	June 30, 2018	June 30, 2017
Personnel Services:		
Salaries	\$2,726	\$2,484
Employee Benefits	1,181	1,080
Total Personnel Services	3,907	3,564
Consultant & Professional Services:		
External Audit Fees	44	48
Legal Consultants	37	333
Professional Services	240	266
Total Professional Services	321	647
Operating Expenses:		
Administrative Support	98	90
General Expenses	57	44
Computer Software	2	639
Education & Travel	51	99
Transportation	13	13
Equipment	-	15
Facilities Operations	217	196
Insurance	94	98
Printing	14	12
Postage	55	70
Telecommunications	52	37
Total Operating Expenses	653	1,313
Total Administrative Expenses	\$4,881	\$5,524

## OTHER SUPPLEMENTARY INFORMATION

CONTINUED

#### SCHEDULE OF INVESTMENT EXPENSES

FOR THE FISCAL YEAR ENDED JUNE 30, 2018 WITH COMPARATIVE AMOUNTS FOR JUNE 30, 2017 (\$ IN THOUSANDS)

	June 30, 2018	June 30, 2017
Cash and Short-Term Managers	\$196	\$172
Equity Managers		
U.S. Equity	505	580
Non-U.S Equity	2,586	2,313
Global Equity	237	473
Fixed Income Managers	1,671	1,661
Private Equity Managers	4,363	3,539
Real Assets	4,855	5,381
Other Investment Expenses	1,184	626
Total Investment Expenses	\$15,597	\$14,745

### SCHEDULE OF PAYMENTS TO CONSULTANTS

FOR THE FISCAL YEAR ENDED JUNE 30, 2018 WITH COMPARATIVE AMOUNTS FOR JUNE 30, 2017 (\$ IN THOUSANDS)

	June 30, 2018	June 30, 2017
Actuarial		
Valuation and Consulting Services	\$190	\$90
Audit		
External Audit Services	44	48
Legal		
Investment Legal Counsel	260	223
Other Legal Services	37	110
Total Legal	297	333
Management		
Information Technology Consulting	614	1,421
Total Payments to Consultants	\$1,145	\$1,892

## OTHER INFORMATION

#### SCHEDULE OF EMPLOYER PENSION AMOUNTS ALLOCATED BY COST SHARING PLAN

(\$ IN THOUSANDS)

		Deferred Outflow of Resources				Deferred Outflow of Resources Deferred Inflow of Resources						Expense Exclud to Employer-Pa Contributions		
Employer/ Nonemployer (special funding situation)	Net Pension Liability	Differences Between Expected and Actual Experience	Net Excess of Projected Over Actual Earnings on Pension Plan Investments (If Any)	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Excess of Actual Over Projected Earnings on Pension Plan Investments (If Any)	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Allocable Plan Pension Expense	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Employer Pension Expense Excluding that Attributable to Employer- Paid Member Contributions
County of Ventura	\$698,072	\$20,895	\$ -	\$153,628	\$1,275	\$175,798	\$73,873	\$39,574	\$ -	\$2,988	\$116,435	\$120,394	\$(258)	\$120,136
Ventura County Courts	20,635	618	-	4,541	2,202	7,361	2,184	1,170	-	1,096	4,450	3,559	76	3,635
Air Pollution Control District	3,104	93	-	683	280	1,056	329	176	-	52	557	535	75	610
Ventura Regional Sanitation District	3,679	110	-	810	719	1,639	389	209	-	340	938	635	107	742
Total	\$725,490	\$21,716	\$ -	\$159,662	\$4,476	\$185,854	\$76,775	\$41,129	\$ -	\$4,476	\$122,380	\$125,123	\$ -	\$125,123



## OTHER INFORMATION

CONTINUED

### SCHEDULE OF COST SHARING EMPLOYER ALLOCATIONS

(\$ IN THOUSANDS)

	June 30,	2018	June 30, 2017			
Participating Employer	Allocation of Net Pension Liability (NPL)	Employer Allocation Percentage	Allocation of Net Pension Liability (NPL)	Employer Allocation Percentage		
County of Ventura	\$698,072	96.221%	\$690,194	96.778%		
Ventura County Courts	20,635	2.844%	17,304	2.426%		
Air Pollution Control District	3,104	0.428%	2,818	0.395%		
Ventura Regional Sanitation District	3,679	0.507%	2,858	0.401%		
Total	\$725,490	100.000%	\$713,174	100.000%		

Note - Employer allocation percentage is weighted average allocation of General and Safety NPL as each NPL is calculated separtely for each participating employer, then combined.





Forming the core of the local healthcare industry are the public Ventura County Medical Center (VCMC), the region's only academic teaching hospital, and the nonprofit Community Memorial Hospital (CMH), Ventura's largest private-sector employer. The pair of healthcare systems have recently invested more than \$600 million in capital improvements to better serve residents, particularly the local "safety net" population. Ventura County also benefits from hundreds of clinics, medical offices, labs and other specialty services that drive innovation and care.



Ventura County Medical Center's new North Tower (photo by Bass Images)

Recovery room at Community Memorial Hospital (photo by Christopher Charles)



Allan Martin Partner

October 15, 2018

Mr. Dan Gallagher Chief Investment Officer Ventura County Employees' Retirement Association 1190 South Victoria Avenue, Suite 200 Ventura, CA 93003

Dear Mr. Gallagher,

The overall objective of the Ventura County Employees' Retirement Association Plan (VCERA) is to ensure continued access to retirement, disability and survivor benefits for current and future VCERA participants, solely in the interest of, and for the exclusive purpose of participants and their beneficiaries, minimizing employer contributions and defraying reasonable expenses of administering the system. To ensure a solid foundation for the future of the Plan, VCERA carefully plans and implements an investment program designed to earn the highest possible long-term rate of return consistent with a level of risk that the Board believes is appropriate given the plan's assets and liabilities, funded status and capital markets outlook. 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 increasing interest rates, US equity market volatility remained relatively low 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 by 7.6%. Global capital markets continued to be largely driven by accommodative Central Bank policy with the European Central Bank and Bank of Japan indicating 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 negative real interest rates and fears over U.S. trade policy caused uncertainty in investor sentiment. Uncertainty related to these risks was reflected in market volatility, although these risks were largely shrugged off by US equities, 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. Private Equity returns (an area of increased emphasis by VCERA) were also strong, with VCERA's Private Equity portfolio generating a 17.9% net-of-fee return for the fiscal year. 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 VCERA Investment Portfolio**

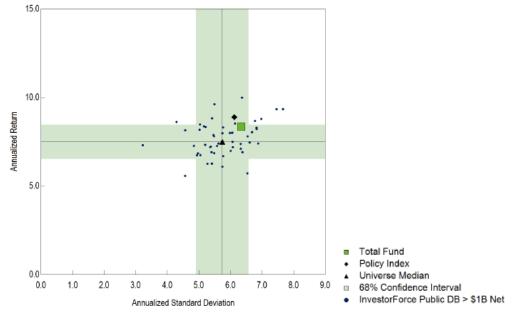
The VCERA total investment portfolio return, net of fees, was 8.9% (9.1% gross of fees) for the year ended June 30, 2018. By comparison, the median fund in the Investor Force peer group universe of large Public Funds returned 8.0% resulting in a top quartile ranking for the VCERA Fund. Contributing positively to performance

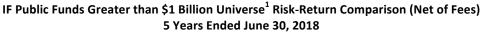
900 Veterans Blvd. | Ste. 340 | Redwood City, CA 94063-1741 | TEL: 650.364.7000 | www.nepc.com BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | SAN FRANCISCO



during the fiscal year was the Plan's overweight to Equities versus its peers, which also contributed to the Plan outperforming the actuarial assumed rate of 7.5% by 1.4% net of fees.

The Fund's five-year return for the period ended June 30, 2018 was 8.3% per year, net of fees, outperforming the actuarial assumed rate of 7.5% and ranking in the top quartile of the peer group returns and ranking in the top half of its peer group on a risk-adjusted basis with a Sharpe Ratio of 1.2. This signifies that the Fund has earned more return per unit of volatility risk taken than most of its peers.





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. Broader diversification can help protect portfolios from significant declines. VCERA's portfolio continues to diversify to be positioned to withstand significant declines in equity markets.

NEPC, LLC serves as VCERA's independent investment consultant and provides VCERA with asset allocation guidance, quarterly economic and investment market updates and performance reviews, and investment manager monitoring and selection advice. In preparing our performance analysis for the Plan, we rely on the accuracy of financial data provided by the Plan's custodian bank and investment managers. Investment performance analysis and comparisons produced by NEPC have been calculated using standard performance evaluation methodologies and are consistent with industry standards. The Plan's goals are measured against stated policy objectives, appropriate benchmarks and comparative universes over multiple time periods. This review process allows the Plan to evaluate whether established goals are being achieved on an absolute, relative, and risk-adjusted basis.

Sincerely,

allan a Martin

Allan Martin, Partner

<sup>&</sup>lt;sup>1</sup> Universe rankings are based on gross of fee performance unless otherwise noted.

## **OUTLINE OF INVESTMENT POLICIES**

### GENERAL

The Board of Retirement (Board) established an investment policy in accordance with the provisions of the County Employees' Retirement Law of 1937 (California Government Code Sections 31450 et. seq.). Ventura County Employees' Retirement Association (VCERA or Plan) is considered a separate entity from the County of Ventura and is administered by a Board consisting of nine members plus three alternates. VCERA's Board, its officers, and employees shall discharge their duties as provided for in California Government Code Section 31595:

- Solely in the interest of, and for the exclusive purpose of, providing benefits to participants 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 with like aims.
- Shall 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 not prudent to do so.

VCERA's assets are managed on a total return basis. While VCERA recognizes the importance of the preservation of capital, it also adheres to the principle that varying degrees of investment risk are generally rewarded with compensating returns.

External professional investment firms manage VCERA's assets. VCERA's staff, along with the investment consultants, monitor managers' activity and assists the Board with the implementation of investment policies and strategies.

### ASSET ALLOCATION POLICY

VCERA has a long-term investment horizon and utilizes an asset allocation that encompasses a strategic long-term perspective of capital markets. It is recognized that a strategic long-run asset allocation plan implemented in a consistent and disciplined manner will be the major determinant of VCERA's investment performance.

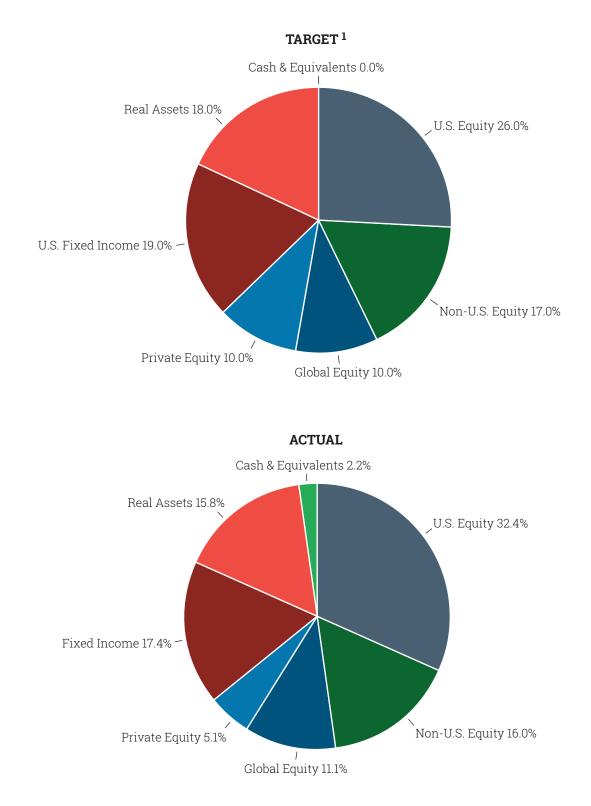
On May 21, 2018, the Board adopted a new allocation and subsequently an implementation plan that was predicated on a number of factors, including:

- a. The actuarially projected liabilities, benefit payments, and costs to both covered employees and employers.
- b. Historical and long-term capital market risk and return behavior.
- c. The perception of future economic conditions, including inflation and interest rate levels.
- d. The relationship between current and projected assets of the Plan and its actuarial requirements.

The portfolio is rebalanced, as necessary, to maintain asset allocations within their appropriate ranges.

## TARGET VERSUS ACTUAL ASSET ALLOCATION

AS OF JUNE 30, 2018



<sup>1</sup>Represents Allocation targets in place as of June 30, 2018

## **INVESTMENT SUMMARY**

AS OF JUNE 30, 2018 (\$ IN THOUSANDS)

Type of Investment	Fair Value	Percent of Total Fair Value
Cash and Cash Equivalents	\$119,099	2.2%
Fixed Income	942,574	17.4%
Subtotal Fixed Income and Cash	1,061,673	19.6%
U.S. Equity	1,749,502	32.4%
Non-U.S. Equity	865,705	16.0%
Global Equity	598,303	11.1%
Subtotal Equities	3,213,510	59.5%
Private Equity	276,326	5.1%
Real Assets	851,026	15.8%
Total Investments	\$5,402,535	100.0%

## SCHEDULE OF INVESTMENT RETURNS BASED ON FAIR VALUE

AS OF JUNE 30, 2018 (\$ IN THOUSANDS)

....

	Annualized		
	Current Year <sup>2</sup>	Three-Year <sup>2</sup>	Five Year <sup>2</sup>
U.S. Equity	14.8%	11.6%	13.5%
Russell 3000	14.8%	11.6%	13.2%
Fixed Income	0.1%	2.5%	2.6%
Current Benchmark: Bloomberg Barclays U.S. Aggregate Index	-0.4%	1.7%	2.3%
Non-U.S. Equity	8.1%	6.3%	6.6%
Current Benchmark: MSCI ACWI ex U.S.A.	7.3%	5.1%	6.0%
Global Equity	11.2%	8.1%	8.8%
Current Benchmark: MSCI ACWI	10.7%	8.2%	9.4%
Private Equity	17.9%	14.1%	15.6%
Current Benchmark: Russell 3000 + 3%	18.2%	14.9%	16.7%
Real Estate	7.3%	7.7%	9.2%
Current Benchmark: NCREIF-ODCE	7.5%	8.4%	10.0%
Liquid Alternatives	4.8%	1.6%	4.2%
Benchmark: CPI + 4% (Unadjusted)	7.0%	5.9%	6.4%
Total Fund	8.9%	7.3%	8.3%
VCERA Policy <sup>1</sup>	9.2%	7.9%	8.9%

<sup>1</sup> Current Benchmarks: 28% Russell 3000 Index, 20% Barclays Aggregate, 15% MSCI ACWI ex U.S., 10% MSCI ACWI, 10% Russell 3000 Index + 3%, 10% CPI + 4% Index, and 7% NCREIF ODCE Real Estate Index.

<sup>2</sup> Investment Returns are net of fees.

Asset Class Returns were prepared using the time-weighted rate of return net of fees. Total Fund performance is calculated based on the weighted average returns.

On May 21, 2018, the Board adopted a new Asset Allocation which groups asset classes differently than shown here. Investment Returns for the new asset classes were not available as of June 30, 2018.

## LARGEST EQUITY HOLDINGS (BY FAIR VALUE)

AS OF JUNE 30, 2018 (\$ IN THOUSANDS)

	Units	Fund Name	Fair Value
1	7,224,586	Blackrock U.S.Russell 1000 Index Fund	\$1,494,649
2	29,968,371	Blackrock MSCI ACWI Equity Index Fund	598,303
3	29,639,431	Blackrock ACWI IMI ex U.S. IMI Index Fund	315,631
4	3,065,231	Sprucegrove Investment Management Group Trust	228,056
5	3,611,703	Walter Scott & Partners Limited Group Trust	124,005
6	59,585	Hexavest EAFE Equity Fund	90,793
7	1,316,651	Blackrock U.S. Russell 2500 Index Fund	64,692
8	47,024,524	Adams Street 2013 Global Fund	61,816
9	16,302,249	Adams Street 2010 U.S. Fund	37,053
10	23,093,307	Pantheon Global Second Fund V	35,175

Note - All VCERA Equity Investments at June 30, 2018 were held in index funds and commingled investment vehicle.

## LARGEST FIXED INCOME HOLDINGS (BY FAIR VALUE)

AS OF JUNE 30, 2018 (\$ IN THOUSANDS)

	Par	Bonds	Fair Value
1	17,320	U.S. Treasury N/B 11/43 3.75	\$19,690
2	8,500	U.S. Treasury Bill 12/18	8,425
3	4,500	FHLMC TBA 30 YR 3.5 Gold Single Family	4,476
4	4,400	FNMA TBA 30 YR 3.0 Gold Single Family Mortgage	4,262
5	4,230	U.S. Treasury N/B 02/47 3.00	4,245
6	3,339	FNMA Pool BH2623 FN 08/47 Fixed 4.00	3,408
7	3,000	FNMA TBA 30 YR 3.5 Single Family Mortgage	2,986
8	3,000	FNMA TBA 30 YR 3.5 Single Family Mortgage	2,986
9	2,900	FNMA TBA 15 YR 3.5 Single Family Mortgage	2,935
10	2,850	U.S. Treasury N/B 11/47 2.75	2,328

Note - A complete list of Portfolio Holdings is available upon request.

## SCHEDULE OF INVESTMENT FEES

AS OF JUNE 30, 2018 (WITH COMPARATIVE AMOUNTS FOR JUNE 30, 2017) (\$ IN THOUSANDS)

	June 30, 2018	June 30, 2017
Cash and Short-Term Managers	\$196	\$172
Equity Managers		
U.S. Equity	505	580
Non-U.S. Equity	2,586	2,313
Global Equity	237	473
Fixed Income Managers	1,671	1,661
Private Equity Managers	4,363	3,539
Real Assets	4,855	5,381
Other Investment Expenses	1,184	626
Total Investment Management Fees	\$15,597	\$14,745

### SCHEDULE OF COMMISSIONS:

VCERA's equity exposure is provided through one (1) separate account, and through seven (7) commingled trust fund pooled vehicles. Equity exposure in the separate account is provided through the use of equity index futures contracts for which commissions are not charged. VCERA buys or sells units in commingled trust fund pooled vehicles for which commissions are also not paid. Therefore, a Schedule of Commissions is not presented.

## **INVESTMENT MANAGERS**

### **Equities - U.S.**

BlackRock, Inc. Western Asset Management Company

#### **Equities - Non-U.S.**

BlackRock, Inc. Hexavest, Inc. Sprucegrove Investment Management Limited Walter Scott & Partners, Limited

#### **Global Equity**

BlackRock, Inc.

#### **Private Equity**

Abbott Capital Adams Street Partners, LLC Battery Ventures Buenaventure One, LLC Buenaventure Two, LLC Carval Investors Clearlake Capital Partners, LP Drive Capital, LLC GTCR LLC HarbourVest Partners, LLC Insight Ventures Pantheon Ventures (US) LP The Resolute Fund IV, LP

#### **Fixed Income**

BlackRock, Inc. Loomis, Sayles & Company, LP Reams Asset Management Company Western Asset Management Company

#### **Real Assets**

Bridgewater Associates, LP Prudential Global Investment Management Tortoise Capital Advisors, LLC UBS Realty Investors

### Investment Consultant

NEPC, LLC Abbott Capital Management, LLC

## **Cash Overlay**

Parametric Portfolio Associates, LLC

## Custodian

State Street Bank and Trust





As the largest employer in Ventura County, with a \$1.9 billion annual impact on the local economy, the Naval Base Ventura County (NBVC) workforce represents about five percent of all jobs in the county. NBVC is a large, diverse installation that operates three warfare centers and offers almost all the Navy's shore services. In addition to supporting combat missions across the globe, NBVC runs an award-winning environmental program that manages natural and cultural resources, such as the 2,500acre coastal wetlands in Point Magu.



E-2C Hawkeyes flying north along the Mugu Rock coastline (photo by NBVC)

USS George Dewey docked at Naval Base Ventura County (photo by NBVC)

## ACTUARIAL INFORMATION OVERVIEW

#### INTRODUCTION

The actuarial process at the Ventura County Employees' Retirement Association (VCERA) is governed by provisions in the County Employees Retirement Law of 1937 (CERL), California Government Code section 31450 et seq. Section 31453 requires VCERA to obtain an actuarial valuation of the pension plan at least once every three years. It further requires the VCERA Board to transmit its recommendations related to contribution rates to the Ventura County Board of Supervisors. The Board of Supervisors adopts and adjusts contribution rates in accordance with VCERA's recommendations.

### **CHANGES IN PENSION BENEFIT TERMS**

The California Public Employees' Pension Reform Act of 2013 (PEPRA), California Government Code section 7522 et seq., changed benefits for new members of VCERA who entered membership on or after January 1, 2013. These members joined either a General PEPRA benefit tier or a Safety PEPRA benefit tier. The provisions of PEPRA apply for the current actuarial valuation. Due to the limited membership in these tiers as of the June 30, 2013 valuation, demographic profiles for this group were approximated using the data profiles of current active members that had been hired in the year prior to the last valuation as of June 30, 2012 and used to determine the "normal cost" rate for this group. This methodology and contribution rates were adopted by the Board of Retirement at its December 17, 2012 meeting and incorporated into subsequent actuarial valuations.

#### FUNDING POLICY

In February 2018, the Board of Retirement adopted a new Actuarial Funding Policy, which requires annual adjustment of the employer contribution rates based on the annual valuation performed by VCERA's actuary. Segal Consulting, the Plan's consulting actuary, performed the most recent actuarial valuation as of June 30, 2018, and recommended changes to the employer and employee contribution rates. At its January 2018 meeting, the VCERA Board adopted Segal Consulting's June 30, 2017 actuarial valuation report.

#### CHANGES IN PENSION PLAN ASSUMPTIONS

In addition to the annual valuations, VCERA requires its actuary to review the reasonableness of the Plan's economic and demographic actuarial assumptions every three years. This review, commonly referred to as the investigation of experience or the experience study, is accomplished by comparing actual experience during the preceding three years to what was expected to happen according to the actuarial assumptions. Based on this review, the actuary recommends changes in the assumptions or methodology that will better project benefit liabilities and asset growth. Based on the actuary's recommendations, the VCERA Board adopts methods and assumptions to be used in future valuations. At its June 2018 meeting, the VCERA Board adopted Segal Consulting's recommendations based on the 2017 Investigation of Experience for Retirement Benefit Assumptions with a modification to the mortality improvement scale recommendation. The VCERA Board also adopted a decrease in the discount rate from 7.50% to 7.25%.

## ACTUARIAL INFORMATION OVERVIEW

CONTINUED

#### **EMPLOYEE CONTRIBUTIONS**

As part of the experience study, the actuary recommends adjustments to employee contribution rates, if necessary, due to changes in the underlying assumptions and methodologies used in calculating employee rates for age-based contributory benefit tiers. Therefore, it is expected that the age-based employee rates will change no more frequently than every three years, when the actuary reviews the assumptions and methodologies.

For new members under PEPRA, and for other employees whose labor contracts provide for single-rate employee contribution rates on the basis of 50-50 cost sharing (i.e., County of Ventura, APCD and VCERA), the actuary is asked to recommend rates that are one-half the normal cost rate. If there are changes to these total normal cost rates, the actuary recommends new employee contribution rates.

### **EMPLOYER CONTRIBUTIONS**

The members and employers are responsible for contributing to the cost of benefits to be earned each year. These contributions are known as normal cost contributions. The portion not funded by expected member contributions is the responsibility of the employers and is referred to as the employer normal cost. Employer contributions are reviewed and changes are recommended each year by the consulting actuary. The actuary recommended new employer normal cost contribution rates for all employers based on the June 30, 2018 valuation; VCERA anticipates that the County will implement these rates between July 1 and September 28, 2019.

The employers are also responsible for contributing funding shortfalls related to liabilities accrued in the past, including changes in the economic and demographic assumptions impacting past service. This portion of the employer's contribution rate is known as the Unfunded Actuarial Accrued Liability (UAAL) contribution.

The latest actuarial valuation as of June 30, 2018, increased the employer normal cost rate from 9.26 percent to 9.77 percent. The change in the normal cost contribution rates from year to year is generally due to multiple factors. This year, the normal cost rate was impacted by new assumptions adopted for the 2018 valuation, normal actuarial experience, a reduction in the discount rate from 7.5% to 7.25%, and a change in plan proportion as new members are hired into the PEPRA benefit tiers. The employers' required contribution rate to finance the UAAL over a layered 15- to 20-year period increased from 17.83 percent to 18.72 percent. Member contribution rates increased for all contributing members, effective with the 2018 actuarial valuation, due to new assumptions adopted with the 2017 Investigation of Experience.

### ACTUARIAL COST METHOD

The entry age normal actuarial cost method is used for both funding requirements and financial reporting purposes. The entry age normal method allocates costs to each future year as a level percentage of payroll, which is ideal for employers to budget for future costs.

### AUDITS

VCERA periodically conducts actuarial audits of retirement benefit valuations and experience studies. The most recent triennial valuation and experience study was completed as of June 30, 2017 and, thereafter, the Plan's audit actuary, Gabriel, Roeder, Smith & Company (GRS), performed an audit of Segal Consulting's 2014 experience study, 2016 valuation report and 2015 economic actuarial assumption review. In regard to the audit of the experience study, GRS concluded: "The retained actuary's work provides a fair and reasonable assessment of the financial position of VCERA. We are pleased to report that we have found no critical issues in the retained actuary's work."

## ACTUARIAL INFORMATION OVERVIEW

CONTINUED

### OTHER ACTUARIAL INFORMATION

**Actuarially Determined Contributions:** The Schedule of Employer Contributions included in the Required Supplementary Information Section provides 10 years of actuarially determined contributions in relation to the actual contributions provided to the Plan.

**Actuarial Methods and Assumptions:** A description of the actuarial methods and assumptions for the Plan valuation used by VCERA's actuary are included in this Actuarial Section. In addition, the Financial Section provides a summary of the actuarial methods and significant assumptions used to prepare the valuation report, which determines the Plan's funding requirements. The Financial Section also discusses the actuarial methods and significant assumptions used for financial reporting and required Governmental Accounting Standards Board (GASB) Statement No. 67 disclosures.

The following additional information is included in this section:

- Actuary's Certification Letter
- Summary of Actuarial Assumptions and Methods
- Active Member Valuation Data
- Schedule of Retirees and Beneficiaries Added to and Removed from Payroll
- Actuarial Analysis of Financial Experience
- Schedule of Funded Liabilities by Type
- Schedule of Funding Progress
- Probability of Separation from Active Service

A Summary of Major Plan Provisions for the Pension Plan is available upon request from VCERA.



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November 27, 2018

Board of Retirement Ventura County Employees' Retirement Association 1190 South Victoria Avenue Ventura, CA 93003

## Re: Ventura 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 Ventura County Employees' Retirement Association (VCERA). We certify that the Retirement Association valuation was performed in accordance with generally accepted actuarial principles and practices and VCERA's funding policy that was last reviewed with the Board in 2012. 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 received participant data from the Association's staff. This information has not been audited by us, but it has been reviewed and found to be reasonable, both internally and with prior year's information. We did not audit the Association's financial statements. For actuarial valuation purposes, Plan assets are valued at Actuarial Value. Under this method, the assets used to determine employer contribution rates take into account market value by recognizing the differences between the total return at market value and the expected investment return over ten semi-annual accounting periods.

One of the general goals of an actuarial valuation is to establish contribution rates which are expected to fully fund the Association's liabilities and which, as a percentage of payroll, remain as level as possible for each generation of active members. Actuarial funding is based on the Entry Age Cost Method. Under this method, the employer contribution rate provides for current cost (normal cost) plus a level percentage of payroll to amortize any unfunded actuarial accrued liability (UAAL).

In 2004, the Board elected to amortize the Association's UAAL as of June 30, 2004 over a declining (or closed) 15-year period. Any change in the UAAL after June 30, 2004 is amortized over separate 15-year declining amortization periods.

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

Board of Retirement Ventura County Employees' Retirement Association November 27, 2018 Page 2

Effective with the June 30, 2012 valuation, any change in the UAAL that arises due to assumption changes is amortized over separate 20-year declining amortization periods. In addition, any change in the UAAL that arises due to retirement incentives is amortized over a separate declining 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 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 and Schedule of Employer Contributions as shown in the RSI. A listing of the other schedules prepared by the Association based on the results of the actuarial valuation as of June 30, 2018 for funding purposes is listed below.

- 1. Summary of Actuarial Assumptions and Methods as of June 30, 2018
- 2. Active Member Valuation Data
- 3. Schedule of Retirees and Beneficiaries Added to and Removed from the Rolls
- 4. Actuarial Analysis of Financial Experience
- 5. Schedule of Funded Liabilities by Type
- 6. Schedule of Funding Progress
- 7. Probability of Occurrence

The valuation assumptions included in the Actuarial Section were adopted by the Retirement Board based on our recommendations following the July 1, 2014 through June 30, 2017 Actuarial Experience Study report dated May 24, 2018. It is our opinion that the assumptions used in the June 30, 2018 valuation produce results which, in the aggregate, anticipate the expected future experience of the 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 during the first half of 2021.

In the June 30, 2018 valuation, the ratio of the valuation value of assets to actuarial accrued liabilities increased from 86.9% to 87.8% and the average employer contribution rate increased from 27.09% of payroll to 28.49% of payroll.

The valuation value of assets included \$11.3 million in deferred investment gains, which represented about 0.2% of the market value of assets. If these deferred investment gains were recognized immediately in the valuation value of assets, the funded percentage would have

Board of Retirement Ventura County Employees' Retirement Association November 27, 2018 Page 3

increased from 87.8% to 88.0% and the aggregate employer contribution rate, expressed as a percent of payroll, would have decreased from 28.49% to about 28.36%.

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 herein.

Sincerely,

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

Monoe

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

AW/bbf

## SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

AS OF JUNE 30, 2018

### **Actuarial Assumptions and Methods**

Recommended by the Actuary and adopted by the Board of Retirement.

#### **Actuarial Cost Method**

Entry age normal.

### **Actuarial Asset Valuation Method**

Five-year smoothing of fair value.

#### **Amortization of Gains and Losses**

Experience gains and losses are amortized over 15 years. Effective June 30, 2012, any changes in Unfunded Actuarial Accrued Liability (UAAL) due to actuarial gains or losses or due to plan amendments (with the exception of a change due to retirement incentives) will be amortized over a 15-year closed period effective with that valuation (up to a 5-year closed period for retirement incentives). Any change in UAAL due to changes in actuarial assumptions or methods will be amortized over a 20-year closed period effective with that valuation.

#### **Investment Rate of Return**

7.25% per annum; 4.50% real rate of return and 2.75% inflation.

#### **Projected Salary Increases**

3.75% – 11.75% varying by service. Includes inflation at 2.75%, "across the board" increases of 0.50%, plus merit and longevity increases.

#### **Terminations of Employment Rates**

0.6% to 14.0%

#### **Cost-of-Living Adjustments**

0-3% COLA for General Tier 1 and safety members tied to the change in Consumer Price Index. Flat 2% COLA for eligible General Tier 2 members represented by SEIU.

#### **Expectation of Life After Retirement**

General Members: Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table times 90% for males and 100% for females, projected generationally with the two-dimensional mortality improvement scale MP-2017. Safety Members: Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table times 75% for males and 85% for females, projected generationally with the two-dimensional mortality improvement scale MP-2017.

#### **Expectation of Life After Disability**

General Members: Headcount-Weighted RP-2014 Disabled Retiree Mortality Table times 100% for males and 100% for females, projected generationally with the two-dimensional mortality improvement scale MP-2017. Safety Members: Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table times 100% for males and 115% for females, projected generationally with the two-dimensional mortality improvement scale MP-2017.

#### **Date of Adoption**

June 4, 2018

### ACTIVE MEMBER VALUATION DATA

Valuation Date	Plan Type	Member Count	Annual Salary	Average Annual Salary	Percent Increase/ (Decrease) In Average Salary	Average Age	Average Service
June 30, 2018	General	7,086	\$581,080,493	\$82,004	2.74%	45.8	10.7
Julie 30, 2018					1.00%		10.7
	Safety	1,525	\$179,734,722	\$117,859		41.1	
	Total	8,611	\$760,815,215	\$88,354	2.43%	44.9	11.3
June 30, 2017	General	7,128	\$568,947,112	\$79,819	4.05%	45.7	10.5
	Safety	1,508	175,970,274	116,691	3.86%	41.3	14.6
	Total	8,636	\$744,917,386	\$86,257	3.96%	45.0	11.2
June 30, 2016	General	7,015	\$538,141,938	\$76,713	2.25%	45.7	10.5
Julie 30, 2010	Safety				0.41%	41.5	10.5
	Total	1,494	167,857,742 \$705,999,680	112,355 \$82,971	1.45%	41.5	14.8
	TOTAL	8,509	\$109,999,080	Ş82,971	1.43%	40.0	11.4
June 30, 2015	General	6,778	\$508,504,947	\$75,023	3.34%	46.1	10.6
	Safety	1,521	170,200,899	111,901	5.02%	41.5	14.3
	Total	8,299	\$678,705,846	\$81,782	3.57%	45.3	11.4
June 30, 2014	General	6,672	\$484,378,825	\$72,599	-0.01%	46.2	10.5
Julie 30, 2014	Safety	1,538	163,878,217	106,553	-0.01%	40.2	10.5
	Total	8,210	\$648,257,042	\$78,959	-0.27%	45.3	14.0
	10101	0,210	90 <del>1</del> 0,201,042	\$10,505	0.2170		11.2
June 30, 2013	General	6,563	\$476,507,030	\$72,605	-0.21%	46.4	10.6
	Safety	1,505	162,256,156	107,811	1.16%	41.2	13.9
	Total	8,068	\$638,763,186	\$79,172	0.16%	45.4	11.2
June 30, 2012	General	6,529	\$475,042,839	\$72,759	0.42%	46.4	10.5
	Safety	1,490	158,804,521	106,580	-1.51%	41.4	13.9
	Total	8,019	\$633,847,360	\$79,043	-0.24%	45.4	11.1
June 30, 2011	General	6,516	\$472,121,275	\$72,456	-2.57%	46.0	10.0
	Safety	1,524	164,916,105	108,213	-5.26%	40.7	13.6
	Total	8,040	\$637,037,380	\$79,234	-3.16%	45.1	10.9
June 30, 2010	General	6,505	\$483,722,608	\$74,362	2.86%	46.0	9.9
	Safety	1,498	171,105,613	114,223	7.00%	40.8	13.8
	Total	8,003	\$654,828,221	\$81,823	3.70%	45.0	10.6
Term - 00, 0000	0	6 501	0400 000 FFF	Á70.001	4.010	48.7	0.6
June 30, 2009	General	6,501	\$469,960,577	\$72,291	4.81%	45.7	9.6
	Safety	1,544	164,817,315	106,747	3.90%	40.5	13.4
	Total	8,045	\$634,777,892	\$78,903	4.40%	44.7	10.3

### SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM PAYROLL

	Re	tirees and E	Beneficiaries						
Fiscal Year Ended June 30	At Beginning of Year	Added	Removed	At End of Year	Added to Payroll (in 000s)	Removed from Payroll (in 000s)	Total Retiree Payroll (in 000s)	Percent Increase in Payroll	Average Annual Allowance
2018	6,766	467	(195)	7,038	\$22,900	\$(6,193)	\$272,288	6.54%	\$38,760
2017	6,539	372	(145)	6,766	\$20,489	\$(6,327)	\$255,581	5.87%	\$37,296
2016	6,338	396	(195)	6,539	\$18,570	\$(5,574)	\$241,419	5.69%	\$36,288
2015	6,121	398	(181)	6,338	\$16,977	\$(6,658)	\$228,423	4.73%	\$36,040
2014	5,888	394	(161)	6,121	\$17,698	\$(4,832)	\$218,104	6.27%	\$35,632
2013	5,658	378	(148)	5,888	\$18,163	\$(4,257)	\$205,238	7.27%	\$34,857
2012	5,481	327	(150)	5,658	\$13,054	\$(1,792)	\$191,332	6.25%	\$33,816
2011	5,267	358	(144)	5,481	\$16,502	\$(2,461)	\$180,070	8.46%	\$32,853
2010	5,041	350	(124)	5,267	\$15,885	\$(2,945)	\$166,029	8.45%	\$31,522
2009	4,914	252	(125)	5,041	\$13,508	\$(3,088)	\$153,089	7.30%	\$30,369

### ACTUARIAL ANALYSIS OF FINANCIAL EXPERIENCE

(\$ IN THOUSANDS)

	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014	June 30, 2013	June 30, 2012	June 30, 2011	June 30, 2010	June 30, 2009
Prior Valuation Unfunded (Excess Funded) Accrued Liability	\$744,326	\$813,043	\$875,827	\$820,215	\$953,354	\$975,867	\$774,964	\$761,459	\$573,553	\$290,048
Salary Increases Greater (Less) Than Expected	(4,839)	35,441	(19,801)	17,095	(56,617)	(49,186)	(93,786)	(131,928)	(19,314)	(9,590)
Asset Return (Greater) Less Than Expected	(55,696)	(24,707)	42,251	(81,080)	(13,827)	25,512	72,404	127,192	202,739	213,344
Other Experience Factors	(85,320)	(79,451)	(85,234)	(98,405)	(62,695)	1,161	(5,030)	18,241	4,481	(11,501)
Change In Actuarial Assumptions	148,510	-	-	218,002	-	-	227,315	-	-	91,252
Ending Valuation Unfunded (Excess Funded) Accrued Liability	\$746,981	\$744,326	\$813,043	\$875,827	\$820,215	\$953,354	\$975,867	\$774,964	\$761,459	\$573,553

### SCHEDULE OF FUNDED LIABILITIES BY TYPE

(\$ IN THOUSANDS)

#### Aggregate Actuarial Accrued Liabilities for:

Valuation Date	Active Member Contrib.	Retired Member Contrib.	Active Members (Employer Financed Portion)	Total Liabilities	Actuarial Value of Assets	Active Member Contrib.	Retired Member Contrib.	Active Member Employer Financed
June 30, 2018	\$758,314	\$2,768,422	\$2,603,022	\$6,129,758	\$5,382,777	100%	100%	71.30%
June 30, 2017	725,090	2,561,943	2,416,363	5,703,396	4,959,070	100%	100%	69.20%
June 30, 2016	683,571	2,417,426	2,297,759	5,398,756	4,585,713	100%	100%	64.62%
June 30, 2015	647,597	2,269,555	2,261,005	5,178,157	4,302,330	100%	100%	61.26%
June 30, 2014	611,921	2,150,677	1,968,418	4,731,016	3,910,801	100%	100%	58.33%
June 30, 2013	584,474	2,051,529	1,939,060	4,575,063	3,621,709	100%	100%	50.83%
June 30, 2012	569,893	1,919,116	1,884,218	4,373,227	3,397,360	100%	100%	48.21%
June 30, 2011	549,207	1,810,062	1,636,083	3,995,352	3,220,388	100%	100%	52.63%
June 30, 2010	525,190	1,674,735	1,677,518	3,877,443	3,115,984	100%	100%	54.61%
June 30, 2009	499,205	1,545,347	1,619,149	3,663,701	3,090,148	100%	100%	64.58%

### SCHEDULE OF FUNDING PROGRESS

(\$ IN THOUSANDS)

Actuarial Valuation Date	Valuation Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded (Overfunded) AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll <sup>1</sup> (c)	UAAL as an Unfunded (Overfunded) Percentage of Covered Payroll ((b-a)/c)
June 30, 2018	\$5,382,777	\$6,129,758	\$746,981	87.81%	\$760,815	98.18%
June 30, 2017	4,959,070	5,703,396	744,326	86.95%	744,917	99.92%
June 30, 2016	4,585,713	5,398,756	813,043	84.94%	706,000	115.16%
June 30, 2015	4,302,230	5,178,157	875,927	83.08%	678,706	129.06%
June 30, 2014	3,910,801	4,731,016	820,215	82.66%	648,257	126.53%
June 30, 2013	3,621,709	4,575,063	953,354	79.16%	638,763	149.25%
June 30, 2012	3,397,360	4,373,227	975,867	77.69%	633,848	153.96%
June 30, 2011	3,220,338	3,995,352	775,014	80.60%	637,037	121.66%
June 30, 2010	3,115,984	3,877,443	761,459	80.36%	654,828	116.28%
June 30, 2009	3,090,148	3,663,701	573,553	84.34%	634,777	90.36%

<sup>1</sup>Based on the expected covered payroll

### SUMMARY OF PLAN BENEFITS

Summarized below are some of the more significant provisions of the County Employees' Retirement Law of 1937 that are presently applicable to the Ventura County Employees' Retirement Association (VCERA or Plan).

#### Membership

All permanent employees of the County of Ventura or contracting district scheduled to work 64 or more hours per biweekly pay period become members of VCERA upon appointment. There are separate benefit tiers for safety and general member employees. Safety membership is extended to those involved in active law enforcement, fire suppression, and probation. Any new safety member hired on or after January 1, 2013, is designated as a California Public Employees' Pension Reform Act of 2013 (PEPRA) member and is subject to the provisions of the PEPRA found in California Government Code 7522 et seq. and Assembly Bill (AB) 197. All other employees are classified as general members. Those hired prior to June 30, 1979, and certain management personnel who entered service prior to October 16, 2001, are included in General Tier 1. Employees hired after that date are included in General Tier 2. Any new general member hired on or after January 1, 2013, is designated as a PEPRA member and is subject to the provisions of California Government Code 7522 et seq. and AB 197.

#### Vesting

A member is vested upon accruing five years of retirement service credit under VCERA or via combined service under VCERA and a reciprocal retirement system.

#### **Employer Contributions**

The County of Ventura and contracting districts contribute to the Plan based upon actuarially determined contribution rates adopted by the Board of Retirement. Employer contribution rates are adopted annually based upon recommendations received from VCERA's actuary after the completion of the annual actuarial valuation.

#### **Member Contributions**

All members are required to make contributions to VCERA, regardless of the benefit tier in which they are included. The contribution rate applicable to the member is applied to total pensionable earnings, which includes base pay and additional pay items allowable by law. The employer, as a result of provisions contained in individual collective bargaining agreements, may pay a portion of the member's contribution.

Contributions are deducted from the member's biweekly payroll check and credited to the member's account. Interest is credited to the member's account semiannually on June 30 and December 31 based upon the total contributions on deposit. Upon separation from service, a member may elect a refund of all accumulated contributions and interest credited.

### SUMMARY OF PLAN BENEFITS

CONTINUED

#### **Service Retirement Benefit**

General members hired prior to January 1, 2013, are eligible to retire once they attain the age of 50 and have acquired 10 or more years of retirement service credit. A general member with 30 years of service is eligible to retire regardless of age. General members first hired on or after January 1, 2013 (PEPRA) are eligible to retire once they have attained the age of 52 and have acquired five years of retirement service credit.

Safety members hired prior to January 1, 2013, are eligible to retire once they attain the age of 50 and have acquired 10 or more years of retirement service credit. A safety member with 20 years of service is eligible to retire regardless of age. Safety members first hired on or after January 1, 2013 (PEPRA) are eligible to retire once they have attained the age of 50 and have acquired five years of retirement service credit.

The retirement benefit a member will receive is based upon age at retirement, final average compensation, years of retirement service credit and benefit tier. Safety member benefits are calculated pursuant to the provisions of California Government Code Section 31664 for those members hired prior to January 1, 2013. The monthly allowance is equal to 1/50th of final compensation times years of accrued retirement service credit multiplied by the age factor from California Government Code Section 31664. For those safety members first hired on or after January 1, 2013, benefits are calculated pursuant to the provision of California Government Code Section 7522.25(d). The monthly allowance is equal to the final compensation multiplied by years of accrued retirement service credit multiplied by the age factor from California Bovernment Code Section 7522.25(d).

General member benefits are calculated pursuant to the provisions of California Government Code Sections 31676.11 and 31676.1 for members hired prior to January 1, 2013. The monthly allowance is equal to 1/90th of the first \$350 of final compensation, plus 1/60th of the excess final compensation, times years of accrued retirement service credit times the age factor from either California Government Code Section 31676.11 (Tier 1) or 31676.1 (Tier 2). General member benefits for those first hired on or after January 1, 2013, are calculated pursuant to the provision of California Government Code Section 7522.20(a). The monthly allowance is equal to the final compensation multiplied by years of accrued retirement service credit multiplied by the age factor from California Government Code Section 7522.20(a).

The maximum monthly retirement allowance is 100% of final compensation.

Final average compensation consists of the highest 12 consecutive months for a safety or General Tier 1 member and the highest 36 consecutive months for a General Tier 2 or PEPRA member (general and safety).

At retirement, a member may elect an unmodified retirement allowance or an optional modified retirement allowance. The Unmodified Option provides the highest monthly benefit to the retiree and a 60% continuance to an eligible surviving spouse, registered domestic partner, or minor child(ren). An eligible surviving spouse or registered domestic partner is one married or registered to the member for at least one year prior to the retirement date. There are four modified options the member may choose. Each modified option requires a reduction in the unmodified retirement allowance to allow the member the ability to provide certain benefits to a surviving spouse, registered domestic partner, minor child(ren), or named beneficiary who has an insurable interest in the life of the member.

#### **Cost-Of-Living**

VCERA provides an annual cost-of-living benefit to safety and General Tier I retirees. The cost-of-living adjustment is based upon the Consumer Price Index for the Los Angeles-Riverside-Orange County area and is capped at 3.0%. General member retirees who were represented by SEIU and accrued service after March 2003 receive a fixed 2% cost-of-living adjustment pursuant to bargaining agreements.

### SUMMARY OF PLAN BENEFITS

CONTINUED

#### **Disability Retirement Benefits**

VCERA provides disability retirement benefits for a service-connected or nonservice-connected injury or disease. To qualify for a disability retirement, the member must be permanently incapacitated from the performance of duty. A member may be retired with a service-connected disability regardless of years of retirement service credit. The monthly allowance for a service-connected disability retirement is equal to 50% of final average compensation, but not less than the member would have received for a regular service retirement, if eligible. Upon the death of a member receiving a service-connected disability allowance, the surviving spouse married to the member at the time of retirement, or eligible minor child(ren), shall receive a 100% continuance of the benefit.

A member must have a minimum of five years of retirement service credit to qualify for a nonserviceconnected disability retirement. The general member benefit payable for a nonservice-connected disability is equal to 90% of one-sixth of final compensation for each year of service not to exceed one-third of final compensation. For safety members, the nonservice-connected disability retirement benefit payable is 90% of one-fifth of final compensation, not to exceed one-third of final compensation.

#### **Active Member Death Benefits**

If the member has less than five years of retirement service credit, the death benefit consists of the member's accumulated retirement contributions, plus one month's salary for each completed year of service up to six months' salary (Basic Death Benefit).

If the member has completed five years of service and has an eligible surviving spouse or minor child(ren), the beneficiary may elect (a) a refund of the member's accumulated contributions, plus one month's salary for each year of completed service up to a maximum of six months' salary, or (b) a monthly retirement allowance equal to 60% of the deceased member's earned benefit if he/she had retired with a nonservice-connected disability at the time of death, or (c) a combined benefit consisting of the Basic Death Benefit plus a monthly allowance reduced by the actuarial equivalent of the Basic Death Benefit. If there is no eligible surviving spouse or minor child(ren), the benefit paid to the named beneficiary will be that described in (a) above.

If a member dies in service as the result of a job-related injury or illness, an eligible surviving spouse or minor child(ren) may be eligible for a monthly benefit equal to 100% of the deceased member's earned benefit at the time of death.

#### **Retired Member Death Benefits**

If the member retired for service or with a nonservice-connected disability, the benefit payable to an eligible surviving spouse would be an amount equal to 60% or 100% (dependent upon the option the member selected at retirement) of the member's unmodified retirement allowance. If the member retired with a service-connected disability retirement, the surviving spouse would receive a 100% continuance of the unmodified retirement allowance. If there is no eligible surviving spouse or registered domestic partner, benefits may be payable to a minor child(ren).

In addition, a lump-sum death benefit of \$5,000 is also payable to the named beneficiary or the estate of a deceased retired member.

# PROBABILITY OF SEPARATION FROM ACTIVE SERVICE

(IN PERCENTAGES)

Age Nearest	Rates of Mortality	Rates of Disability	Rates of Retirement Non PEPRA	Rates of Retirement PEPRA
General Members - Male	Mortanty	Rates of Disability	NOII PEPKA	PEPRA
25	0.0005	0.0002	0.0000	0.0000
30	0.0005	0.0003	0.0000	0.0000
35	0.0005	0.0006	0.0000	0.0000
40	0.0006	0.0011	0.0000	0.0000
45	0.0010	0.0017	0.0000	0.0000
50	0.0017	0.0023	0.0200	0.0000
55	0.0027	0.0031	0.0475	0.0400
60	0.0045	0.0041	0.1050	0.0900
65	0.0078	0.0054	0.2800	0.2000
General Members - Female				
25	0.0002	0.0002	0.0000	0.0000
30	0.0002	0.0003	0.0000	0.0000
35	0.0003	0.0006	0.0000	0.0000
40	0.0004	0.0011	0.0000	0.0000
45	0.0007	0.0017	0.0000	0.0000
50	0.0011	0.0023	0.0200	0.0000
55	0.0017	0.0031	0.0475	0.0400
60	0.0024	0.0041	0.1050	0.0900
65	0.0036	0.0054	0.2800	0.2000

General Members Years of Service	Withdrawal <sup>1</sup>
Less than 1	0.1400
5	0.0500
10	0.0325
15	0.0250
20 & Over	0.0200

 $^{1}$  No with drawal is assumed after a member is first assumed to retire

# PROBABILITY OF SEPARATION FROM ACTIVE SERVICE

CONTINUED (IN PERCENTAGES)

Age Nearest	Rates of Mortality	Rates of Disability	Rates of Retirement Non PEPRA	Rates of Retirement PEPRA
Safety Members - Male	Mortanty	nates of Disability	NOILITIA	I LI IG
25	0.0005	0.0011	0.0100	0.0000
30	0.0005	0.0024	0.0100	0.0000
35	0.0005	0.0036	0.0100	0.0000
40	0.0006	0.0052	0.0100	0.0000
45	0.0010	0.0084	0.0100	0.0000
50	0.0017	0.0130	0.0200	0.0400
55	0.0027	0.0276	0.2000	0.2000
60	0.0045	0.0564	0.2500	0.2500
65	0.0078	0.0280	1.0000	1.0000
Safety Members - Female				
25	0.0002	0.0011	0.0100	0.0000
30	0.0002	0.0024	0.0100	0.0000
35	0.0003	0.0036	0.0100	0.0000
40	0.0004	0.0052	0.0100	0.0000
45	0.0007	0.0084	0.0100	0.0000
50	0.0011	0.0130	0.0200	0.0400
55	0.0017	0.0276	0.2000	0.2000
60	0.0024	0.0564	0.2500	0.2500
65	0.0036	0.0280	1.0000	1.0000

Safety Members Years of Service	Withdrawal <sup>1</sup>
Less than 1	0.1100
5	0.0300
10	0.0140
15	0.0085
20 & Over	0.0060

 $^1\,\mathrm{No}$  with drawal is assumed after a member is first assumed to retire



Medical laboratory constructed by Anderson Construction in Camarillo



# MANUFACTURING

Boasting nearly 4,000 jobs in the City of Ventura alone, the manufacturing sector of Ventura County produces essential supplies for oil, medical, transportation, construction, food and electronics industries in the U.S. and globally. Meeting these business needs positions local manufacturers among the region's largest revenue generators. In addition, two well-known apparel companies call the county home: Patagonia, a maker of high-end outdoor clothing, and Fashion Farms, which specializes in women's undergarments. Great ideas, talented engineers and precise execution make Ventura County manufacturing ripe for growth.



Medical laboratory constructed by Anderson Construction in Camarillo

"Spider arms" designed and fabricated by One Off Effects in Oxnard

### STATISTICAL INFORMATION OVERVIEW

The objective of the Statistical Information Overview Section is to provide historical perspective, context, and detail to assist in utilizing the Basic Financial Statements, Notes to the Financial Statements, and Supplementary Information to understand and assess the status of the pension plan administered by VCERA as of the fiscal year end. This section also includes multi-year trends of financial and operating information to facilitate comprehensive understanding of how VCERA's financial position and performance has changed over time. More specifically, the financial and operating information provides contextual data of VCERA's changes in fiduciary net position, benefits, refunds, contribution rates and retirement benefits. The financial and operating trend information is located on the following pages.

The Statistical Information provided here is divided into two main categories: Financial Trends Information and Operating Information.

Financial Trends Information is intended to assist readers in understanding how VCERA's financial position has changed over time. The *Changes in Pension Plan Fiduciary Net Position* presents additions by source, deductions by type, and the total change in fiduciary net position for each year. The *Schedule of Pension Benefit Expenses by Type* presents benefit and member refunds and death benefits deductions by type of benefit and by member type.

Operating Information provides contextual information about VCERA's operations and membership to assist readers in using financial statement information to comprehend and evaluate VCERA's fiscal condition. The *Active and Deferred Members* provides membership statistics for active vested and non-vested members as well as deferred members. The *Retired Members by Type of Pension Benefit* presents benefit information for the current year by benefit type and dollar levels. The *Schedule of Average Monthly Benefit Payments* reflects the number of newly retired members, average monthly benefit and average final salary, shown in five-year increments. The *Participating Employers and Active Members* presents the employers and their corresponding covered employees. The *Employer Contribution Rates* are also provided as additional information.

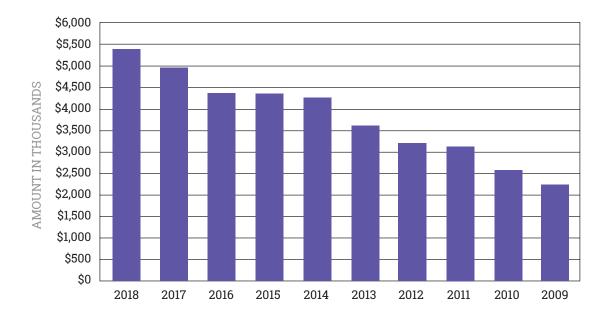
# CHANGES IN PENSION PLAN FIDUCIARY NET POSITION

LAST TEN FISCAL YEARS (IN THOUSANDS)

	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014
ADDITIONS					
Employer Contributions	\$197,683	\$190,759	\$177,710	\$175,099	\$169,703
Member Contributions	74,044	72,395	69,470	63,679	46,674
Net Investment Income	445,902	580,526	25,739	88,681	658,580
Total Additions	717,629	843,680	272,919	327,459	874,957
DEDUCTIONS					
Benefits	272,288	255,581	241,419	228,423	218,105
Administrative	4,881	5,524	4,474	3,854	4,045
Member Refunds & Death Payments	5,430	5,164	4,984	5,272	5,428
Other Expenses	2,814	-	-	-	-
Total Deductions	285,413	266,269	250,877	237,549	227,578
Change In Pension Plan Fiduciary Net Position	\$432,216	\$577,411	\$22,042	\$89,910	\$647,379

	June 30, 2013	June 30, 2012	June 30, 2011	June 30, 2010	June 30, 2009
ADDITIONS					
Employer Contributions	\$150,688	\$140,773	\$120,053	\$105,703	\$113,916
Member Contributions	44,464	44,487	44,238	42,466	42,326
Net Investment Income	436,638	50,683	627,327	347,087	(625,183)
Total Additions (Declines)	631,790	235,943	791,618	495,256	(468,941)
DEDUCTIONS					
Benefits	205,238	191,332	180,070	166,029	153,089
Administrative	3,944	3,536	4,387	3,227	3,536
Member Refunds & Death Payments	4,720	3,783	4,388	4,081	3,253
Other Expenses	-	-	-	-	-
Total Deductions	213,902	198,651	188,845	173,337	159,878
Change In Pension Plan Fiduciary Net Position	\$417,888	\$37,292	\$602,773	\$321,919	\$(628,819)

# TOTAL PLAN NET POSITION



### SCHEDULE OF PENSION BENEFIT EXPENSES BY TYPE

LAST 10 FISCAL YEARS (\$ IN THOUSANDS)

	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014
Service Retirement					
General	\$139,476	\$131,107	\$125,219	\$116,593	\$110,052
Safety	75,110	69,332	62,618	61,918	58,404
Total	214,586	200,439	187,837	178,511	168,456
Disability Retirement					
General	10,065	9,945	9,966	9,711	10,172
Safety	28,479	26,753	26,895	24,426	24,332
Total	38,544	36,698	36,861	34,137	34,504
Survivor Continuances					
General	11,180	10,660	9,894	9,335	9,141
Safety	7,978	7,784	6,827	6,440	6,003
Total	19,158	18,444	16,721	15,775	15,144
Total Retired Members					
General	160,721	151,712	145,079	135,639	129,365
Safety	111,567	103,869	96,340	92,784	88,739
Total	272,288	255,581	241,419	228,423	218,104
Member Refunds & Death	Benefits				
General	5,082	4,634	4,160	4,703	5,094
Safety	348	530	824	569	334
Total	\$5,430	\$5,164	\$4,984	\$5,272	\$5,428

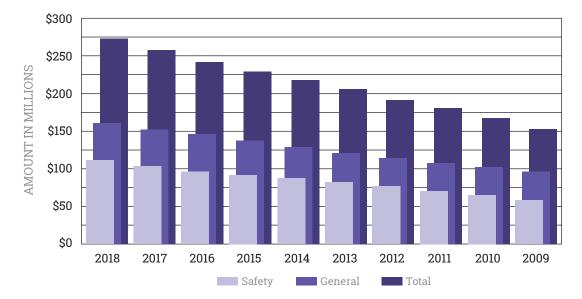
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### SCHEDULE OF PENSION BENEFIT EXPENSES BY TYPE

LAST 10 FISCAL YEARS (\$ IN THOUSANDS) CONTINUED

	June 30, 2013	June 30, 2012	June 30, 2011	June 30, 2010	June 30, 2009
Service Retirement					
General	\$103,665	\$96,889	\$91,046	\$83,373	\$77,662
Safety	54,789	49,706	45,010	39,353	35,039
Total	158,454	146,595	136,056	122,726	112,701
Disability Retirement					
General	9,639	9,585	9,484	10,051	9,638
Safety	22,890	21,808	21,331	21,163	19,265
Total	32,529	31,393	30,815	31,214	28,903
Survivor Continuances					
General	8,513	8,017	7,909	7,365	6,950
Safety	5,742	5,328	5,291	4,724	4,535
Total	14,255	13,345	13,200	12,089	11,485
Total Retired Members					
General	121,817	114,491	108,439	100,789	94,250
Safety	83,421	76,842	71,632	65,240	58,839
Total	205,238	191,333	180,071	166,029	153,089
Member Refunds & Death	Benefits				
General	4,263	3,379	3,859	2,606	2,679
Safety	457	404	530	622	574
Total	\$4,720	\$3,783	\$4,389	\$3,228	\$3,253

# PENSION BENEFIT PAYMENTS



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# ACTIVE AND DEFERRED MEMBERS

LAST TEN FISCAL YEARS

	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014
Active Vested					
General	4,562	4,594	4,619	4,632	4,699
Safety	1,200	1,207	1,231	1,245	1,274
Active Non-vested					
General	2,524	2,534	2,396	2,146	1,973
Safety	325	301	263	276	264
<b>Total Active Members</b>					
General	7,086	7,128	7,015	6,778	6,672
Safety	1,525	1,508	1,494	1,521	1,538
Deferred Members					
General	2,570	2,484	2,332	2,140	2,052
Safety	339	325	307	301	287
Total	11,520	11,445	11,148	10,740	10,549

	June 30, 2013	June 30, 2012	June 30, 2011	June 30, 2010	June 30, 2009
Active Vested					
General	4,669	4,516	4,278	4,078	4,069
Safety	1,260	1,221	1,193	1,158	1,187
Active Non-vested					
General	1,894	2,013	2,238	2,427	2,432
Safety	245	269	331	340	357
Total Active Members					
General	6,563	6,529	6,516	6,505	6,501
Safety	1,505	1,490	1,524	1,498	1,544
Deferred Members					
General	1,978	1,891	1,838	1,780	1,795
Safety	271	270	259	260	260
Total	10,317	10,180	10,137	10,043	10,100

# RETIRED MEMBERS BY TYPE OF PENSION BENEFIT

AS OF JUNE 30, 2018

Amount of Monthly Benefit	Number of Retirees	Ту	Type of Retirement <sup>1</sup>			
		Α	В	С		
General Members						
\$1 - \$999	1,537	1,153	59	325		
\$1,000 - \$1,999	1,606	1,176	222	208		
\$2,000 - \$2,999	912	739	82	91		
\$3,000 - \$3,999	531	462	40	29		
\$4,000 - \$4,999	321	292	8	21		
\$5,000 - \$5,999	222	198	2	22		
\$6,000 - \$6,999	140	136	2	2		
\$7,000 - \$7,999	79	75	2	2		
\$8,000 - \$8,999	56	55	-	1		
\$9,000 - \$9,999	47	43	2	2		
> \$10,000	101	99	1	1		
Totals	5,552	4,428	420	704		
Safety Members						
\$1 - \$999	73	56	14	3		
\$1,000 - \$1,999	119	75	8	36		
\$2,000 - \$2,999	167	59	43	65		
\$3,000 - \$3,999	170	61	58	51		
\$4,000 - \$4,999	150	45	56	49		
\$5,000 - \$5,999	148	47	75	26		
\$6,000 - \$6,999	100	49	37	14		
\$7,000 - \$7,999	87	53	22	12		
\$8,000 - \$8,999	92	59	21	12		
\$9,000 - \$9,999	72	56	13	3		
> \$10,000	308	246	52	10		
Totals	1,486	806	399	281		
Grand Total	7,038	5,234	819	985		

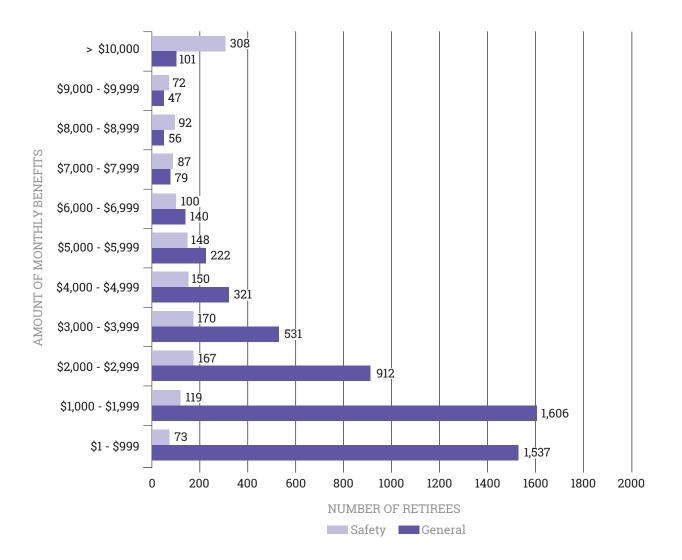
<sup>1</sup> Type of Retirement:

A - Service Retiree

B - Disability Retiree

C - Beneficiary/Continuant/Survivor

### **RETIRED MEMBERS RECEIVING BENEFITS**



# SCHEDULE OF AVERAGE MONTHLY BENEFIT PAYMENTS

2015-2018

Years of Credited Service	5-9	10-14	15-19	20-24	25-29	30+
Retirees - 2018						
General Members						
Average Monthly Benefit	\$991	\$1,835	\$2,659	\$3,599	\$4,475	\$5,706
Average Final Average Salary	\$6,062	\$7,191	\$7,523	\$7,879	\$8,515	\$9,118
Number of Active Retirees	44	70	50	55	49	55
Safety Members						
Average Monthly Benefit	\$2,519	\$2,788	\$4,046	\$5,236	\$9,104	\$10,750
Average Final Average Salary	\$5,585	\$8,754	\$8,497	\$9,129	\$12,452	\$13,089
Number of Active Retirees	2	10	4	7	22	34
Retirees - 2017						
General Members						
Average Monthly Benefit	\$999	\$1,757	\$2,801	\$3,527	\$3,798	\$5,141
Average Final Average Salary	\$6,018	\$6,627	\$8,185	\$7,476	\$7,088	\$8,344
Number of Active Retirees	33	55	37	37	30	45
Safety Members						
Average Monthly Benefit	\$1,650	\$2,785	\$3,926	\$5,354	\$8,868	\$9,405
Average Final Average Salary	\$9,830	\$9,696	\$8,890	\$10,097	\$11,750	\$12,047
Number of Active Retirees	3	4	3	5	12	24
Retirees - 2016						
General Members						
Average Monthly Benefit	\$902	\$1,694	\$2,608	\$3,433	\$4,168	\$5,455
Average Final Average Salary	\$5,427	\$6,493	\$7,835	\$7,326	\$7,225	\$8,215
Number of Active Retirees	35	54	30	31	29	46
Safety Members						
Average Monthly Benefit	\$1,621	\$2,329	\$4,491	\$5,430	\$8,605	\$8,504
Average Final Average Salary	\$9,830	\$7,789	\$8,710	\$9,975	\$11,254	\$11,425
Number of Active Retirees	3	3	6	6	17	35
Retirees - 2015						
General Members						
Average Monthly Benefit	\$1,094	\$1,835	\$2,535	\$3,156	\$4,737	\$5,969
Average Final Average Salary	\$6,296	\$6,725	\$6,716	\$6,941	\$8,200	\$7,913
Number of Active Retirees	34	57	36	54	27	30
Safety Members						
Average Monthly Benefit	\$2,288	\$2,843	\$6,112	\$4,199	\$7,827	\$11,376
Average Final Average Salary	\$8,230	\$8,843	\$11,928	\$7,873	\$11,778	\$13,039

## SCHEDULE OF AVERAGE MONTHLY BENEFIT PAYMENTS

2011-2014

Years of Credited Service	5-9	10-14	15-19	20-24	25-29	30+
Retirees - 2014						
General Members						
Average Monthly Benefit	\$1,222	\$1,823	\$2,194	\$3,114	\$4,208	\$5,176
Average Final Average Salary	\$6,626	\$6,614	\$6,219	\$6,737	\$7,475	\$7,127
Number of Active Retirees	40	66	36	48	26	21
Safety Members						
Average Monthly Benefit	\$2,599	\$4,138	\$4,444	\$4,864	\$7,305	\$12,835
Average Final Average Salary	\$8,760	\$10,770	\$10,378	\$9,755	\$11,132	\$14,645
Number of Active Retirees	7	5	2	3	6	13
Retirees - 2013						
General Members						
Average Monthly Benefit	\$1,278	\$1,749	\$2,514	\$3,344	\$4,905	\$5,803
Average Final Average Salary	\$6,614	\$6,741	\$7,147	\$7,061	\$7,821	\$7,886
Number of Active Retirees	27	74	37	39	23	36
Safety Members						
Average Monthly Benefit	\$1,387	\$3,234	\$4,051	\$6,453	\$6,426	\$11,371
Average Final Average Salary	\$10,367	\$8,893	\$8,302	\$11,913	\$10,856	\$12,610
Number of Active Retirees	9	3	4	4	7	26
Retirees - 2012						
General Members						
Average Monthly Benefit	\$950	\$1,831	\$2,653	\$2,996	\$4,065	\$6,683
Average Final Average Salary	\$5,888	\$6,580	\$6,667	\$6,522	\$7,144	\$8,971
Number of Active Retirees	46	57	28	31	22	26
Safety Members						
Average Monthly Benefit	\$1,219	\$2,928	\$2,915	\$7,491	\$9,827	\$10,422
Average Final Average Salary	\$7,910	\$8,631	\$5,263	\$12,690	\$13,347	\$12,150
Number of Active Retirees	9	6	1	14	6	22
Retirees - 2011						
General Members						
Average Monthly Benefit	\$1,169	\$1,835	\$2,497	\$3,824	\$5,203	\$6,494
Average Final Average Salary	\$6,376	\$6,466	\$6,489	\$8,145	\$9,263	\$8,729
Number of Active Retirees	59	76	34	46	24	28
Safety Members						
Average Monthly Benefit	\$2,089	\$3,021	\$5,528	\$6,822	\$7,925	\$12,281
Average Final Average Salary	\$9,315	\$13,110	\$10,450	\$12,291	\$10,547	\$13,718
Number of Active Retirees	10	4	4	8	11	24

# SCHEDULE OF AVERAGE MONTHLY BENEFIT PAYMENTS

2009-2010

Years of Credited Service	5-9	10-14	15-19	20-24	25-29	30+		
Retirees - 2010								
General Members								
Average Monthly Benefit	\$1,146	\$1,765	\$2,372	\$3,694	\$4,368	\$5,674		
Average Final Average Salary	\$6,540	\$6,376	\$6,356	\$8,000	\$8,063	\$7,409		
Number of Active Retirees	42	47	36	33	19	31		
Safety Members								
Average Monthly Benefit	\$2,889	\$3,231	\$2,919	\$6,632	\$7,520	\$11,226		
Average Final Average Salary	\$13,166	\$8,312	\$8,033	\$12,022	\$11,082	\$13,032		
Number of Active Retirees	5	9	11	9	8	23		
Retirees - 2009								
General Members								
Average Monthly Benefit	\$1,708	\$2,053	\$3,271	\$3,681	\$4,226	\$5,416		
Average Final Average Salary	\$4,460	\$8,125	\$8,094	\$7,599	\$7,883	\$7,190		
Number of Active Retirees	29	23	13	11	9	23		
Safety Members								
Average Monthly Benefit	\$2,613	\$2,754	\$4,605	\$5,595	\$10,741	\$11,951		
Average Final Average Salary	\$9,309	\$7,503	\$11,038	\$11,809	\$13,642	\$14,329		
Number of Active Retirees	11	4	2	3	1	14		

### PARTICIPATING EMPLOYERS AND ACTIVE MEMBERS

LAST TEN FISCAL YEARS

	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014	June 30, 2013	June 30, 2012	June 30, 2011	June 30, 2010	June 30, 2009
County of Ventura										
General Members	6,607	6,654	6,552	6,319	6,212	6,104	6,031	6,069	6,057	6,044
Safety Members	1,525	1,508	1,494	1,521	1,538	1,505	1,490	1,524	1,498	1,544
Total	8,132	8,162	8,046	7,840	7,750	7,609	7,521	7,593	7,555	7,588
Participating Agencies (General Membership)										
Ventura Regional Sanitation District	68	63	66	68	69	61	60	60	61	69
Ventura County Courts	362	361	352	345	345	350	387	387	387	388
Ventura County Air Pollution Control District	44	45	45	46	46	48	51	-	-	-
Ventura County Employees' Retirement Association	5	5	-	-	-	-	-	-	-	-
Total	479	474	463	459	460	459	498	447	448	457
Total Active Members	hip									
General Members	7,086	7,128	7,015	6,778	6,672	6,563	6,529	6,516	6,505	6,501
Safety Members	1,525	1,508	1,494	1,521	1,538	1,505	1,490	1,524	1,498	1,544
Total	8,611	8,636	8,509	8,299	8,210	8,068	8,019	8,040	8,003	8,045

### EMPLOYER CONTRIBUTION RATES

LAST TEN FISCAL YEARS

Tier 1	Tier 2	PEPRA Tier 1	PEPRA Tier 2	Safety	PEPRA Safety
24.40%	16.54%	N/A	16.39%	55.66%	53.49%
23.85%	16.80%	N/A	16.67%	54.56%	52.77%
22.93%	18.07%	N/A	16.63%	53.87%	50.30%
47.39%	16.74%	44.01%	16.41%	51.65%	52.42%
37.35%	18.42%	28.36%	16.15%	54.57%	48.99%
171.83%	10.15%	13.99%	14.67%	46.63%	43.16%
114.29%	10.16%	N/A	N/A	43.86%	43.86%
79.92%	8.82%	N/A	N/A	37.94%	37.94%
46.89%	7.70%	N/A	N/A	31.06%	31.06%
49.29%	8.47%	N/A	N/A	32.78%	32.78%
iencies					
24.40%	16.54%	N/A	16.39%	N/A	N/A
23.85%	16.80%	N/A	16.67%	N/A	N/A
22.93%	18.07%	N/A	16.63%	N/A	N/A
47.78%	16.74%	N/A	16.41%	N/A	N/A
37.35%	18.42%	N/A	16.15%	N/A	N/A
171.83%	10.15%	N/A	14.67%	N/A	N/A
114.29%	10.16%	N/A	N/A	N/A	N/A
79.92%	8.82%	N/A	N/A	N/A	N/A
46.89%	7.70%	N/A	N/A	N/A	N/A
49.29%	8.47%	N/A	N/A	N/A	N/A
	23.85% 22.93% 47.39% 37.35% 171.83% 114.29% 46.89% 49.29% 49.29% 24.40% 23.85% 22.93% 47.78% 37.35% 171.83% 171.83% 114.29% 46.89%	23.85%       16.80%         22.93%       18.07%         47.39%       16.74%         37.35%       18.42%         171.83%       10.15%         114.29%       10.16%         46.89%       7.70%         49.29%       8.47%         24.40%       16.54%         22.93%       18.07%         22.93%       16.80%         171.83%       10.15%         18.07%       16.74%         37.35%       18.42%         171.83%       10.15%         171.83%       10.15%         171.83%       10.15%         114.29%       10.16%         114.29%       10.16%         128.82%       16.80%	23.85%       16.80%       N/A         22.93%       18.07%       N/A         47.39%       16.74%       44.01%         37.35%       18.42%       28.36%         171.83%       10.15%       13.99%         114.29%       10.16%       N/A         79.92%       8.82%       N/A         46.89%       7.70%       N/A         49.29%       8.47%       N/A         24.40%       16.54%       N/A         23.85%       16.80%       N/A         22.93%       18.07%       N/A         37.35%       18.42%       N/A         171.83%       10.15%       N/A         14.29%       16.74%       N/A         171.83%       16.74%       N/A         171.83%       10.15%       N/A         171.83%       10.15%       N/A         171.83%       10.15%       N/A         171.83%       10.16%       N/A         174.29%       8.82%       N/A         174.29%       10.16%       N/A         174.29%       7.70%       N/A	23.85%       16.80%       N/A       16.67%         22.93%       18.07%       N/A       16.63%         47.39%       16.74%       44.01%       16.41%         37.35%       18.42%       28.36%       16.15%         171.83%       10.15%       13.99%       14.67%         114.29%       10.16%       N/A       N/A         79.92%       8.82%       N/A       N/A         46.89%       7.70%       N/A       N/A         49.29%       8.47%       N/A       N/A         24.40%       16.54%       N/A       16.39%         22.93%       18.07%       N/A       16.63%         47.78%       16.74%       N/A       16.63%         171.83%       10.15%       N/A       16.63%         171.83%       10.15%       N/A       16.63%         171.83%       10.15%       N/A       16.15%         171.83%       10.15%       N/A       N/A         171.83%       10.15%       N/A       N/A         174.29%       8.82%       N/A       N/A         174.29%       10.16%       N/A       N/A         179.92%       8.82%       N/A </td <td>23.85%         16.80%         N/A         16.67%         54.56%           22.93%         18.07%         N/A         16.63%         53.87%           47.39%         16.74%         44.01%         16.41%         51.65%           37.35%         18.42%         28.36%         16.15%         54.57%           171.83%         10.15%         13.99%         14.67%         46.63%           114.29%         10.16%         N/A         N/A         43.86%           79.92%         8.82%         N/A         N/A         31.06%           46.89%         7.70%         N/A         N/A         31.06%           49.29%         8.47%         N/A         N/A         31.06%           22.33%         16.50%         N/A         N/A         32.78%           23.85%         16.80%         N/A         16.39%         N/A           22.93%         18.07%         N/A         16.63%         N/A           47.78%         16.74%         N/A         16.15%         N/A           37.35%         18.42%         N/A         16.15%         N/A           171.83%         10.15%         N/A         14.67%         N/A           14.4</td>	23.85%         16.80%         N/A         16.67%         54.56%           22.93%         18.07%         N/A         16.63%         53.87%           47.39%         16.74%         44.01%         16.41%         51.65%           37.35%         18.42%         28.36%         16.15%         54.57%           171.83%         10.15%         13.99%         14.67%         46.63%           114.29%         10.16%         N/A         N/A         43.86%           79.92%         8.82%         N/A         N/A         31.06%           46.89%         7.70%         N/A         N/A         31.06%           49.29%         8.47%         N/A         N/A         31.06%           22.33%         16.50%         N/A         N/A         32.78%           23.85%         16.80%         N/A         16.39%         N/A           22.93%         18.07%         N/A         16.63%         N/A           47.78%         16.74%         N/A         16.15%         N/A           37.35%         18.42%         N/A         16.15%         N/A           171.83%         10.15%         N/A         14.67%         N/A           14.4