

Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 2020

2019-2020



Fresno County Employees' Retirement Association

A Pension Trust Fund for the County of Fresno
And Participating Employers
Fresno, California

COMPREHENSIVE ANNUAL FINANCIAL REPORT

FOR THE FISCAL YEAR ENDED JUNE 30, 2020

ISSUED BY

DONALD C. KENDIG, CPA
RETIREMENT ADMINISTRATOR

and

DEBORAH PAOLINELLI, CPA
ASSISTANT RETIREMENT ADMINISTRATOR

FCERA

FRESNO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
7772 N. Palm Ave.
FRESNO, CALIFORNIA 93711
www.FresnoCountyRetirement.org

A Pension Trust Fund for the County of Fresno
and Participating Employers

Table of Contents

INTRODUCTORY SECTION

Letter of Transmittal	1
Certificate of Achievement	11
Board of Retirement	12
Administrative Organization Chart	13
List of Professional Consultants	14

FINANCIAL SECTION

Independent Auditors' Report	16
Management's Discussion and Analysis	19

Basic Financial Statements

Statement of Fiduciary Net Position	26
Statement of Changes in Fiduciary Net Position	27
Notes to the Basic Financial Statements	28

Required Supplementary Information

Schedule of Employer Contributions	54
Schedule of Investment Returns – Pension Plan	54
Actuarial Methods and Assumptions	54
Schedule of Changes in Net Pension Liability and Related Ratios	56

Other Supplementary Information

Schedule of Administrative Expenses	57
Schedule of Information Technology Expenses	58
Schedule of Investment Expenses	58
Schedule of Payments to Consultants	59

INVESTMENT SECTION

Annual Investment Consultant's Review	60
General Information	65
Summary of Investment Objectives	66
Target and Actual Asset Allocations	66
Investment Results	69
Investment Summary	70

Table of Contents

Largest Fixed Income and Equity Holdings	71
List of Investment Managers	72
Schedule of Fees	73
Schedule of Commissions	74

ACTUARIAL SECTION

Actuary's Certification Letter	75
Summary of Actuarial Assumptions and Methods	78
Schedule of Active Member Valuation Data	81
Schedule of Retirees and Beneficiaries Added to and Removed from Payroll	82
Schedule of Funding Progress	82
Schedule of Analysis of Financial Experience	83
Funded Liabilities by Type	84
Probabilities of Separation from Active Service	85
Proportion of Withdrawals from Active Service	87
Years of Life Expectancy after Service Retirement	88
Years of Life Expectancy after Disability Retirement	89
Summary of Major Plan Provisions	90

STATISTICAL SECTION

Statistical Section Information	93
Table of Changes in Fiduciary Net Position	94
Schedule of Benefit Expenses by Type	95
Schedule of Retired Members by Type of Retirement	96
Schedule of Average Annual Benefit and Membership Distribution of Retired Members	97
Schedule of Average Benefit Payments by Years of Credited Service	98
Schedule of Active and Deferred Members	99
Schedule of Principal Participating Employers	100
Schedule of Participating Employers and Active Members	101
Schedule of Employers' Contribution Rates	102
Schedule of Retired Members by Type of Benefit	103
Schedule of Benefits and Refund Deductions from Fiduciary Net Position by Type	104



Introductory Section



7772 N. Palm Ave.
Fresno, CA 93711
(559) 457-0681 p.
(559) 457-0318 f.
FresnoCountyRetirement.org

December 16, 2020

Board of Retirement
Fresno County Employees' Retirement Association
7772 N Palm Ave
Fresno, CA 93711

Dear Board Members:

I am pleased to present this Comprehensive Annual Financial Report ("CAFR") for the Fresno County Employees' Retirement Association ("FCERA"), for the fiscal year ended June 30, 2020.

The CAFR provides members, sponsors/employers, policy makers, regulatory agencies and other users with a thorough and accurate review of the fiscal year's operations, from July 1 to June 30.

In addition, the CAFR serves as a source of reliable information for making responsible management decisions, determining compliance with legal requirements and demonstrating the stewardship of the Board of Retirement of the Fresno County Employees' Retirement Association ("Board"), staff and key consultants who serve the members of FCERA. While good stewardship is clearly demonstrated by the data contained in the CAFR, it is important to note that the management of FCERA is responsible for both the accuracy of the data and the completeness and fairness of the presentation of the financial information, including all disclosures. The accumulation, analysis and presentation of the data rest upon the shoulders of management and supporting staff, and I am thankful to all members of the FCERA team.

Generally Accepted Accounting Principles (GAAP) require that management provide a narrative introduction, overview and analysis to accompany the basic financial statements in the form of Management's Discussion and Analysis (MD&A). This letter of transmittal provides a broader context as compared to the MD&A, and the two should be read in tandem. The MD&A can be found immediately following the Independent Auditor's Report in the Financial Section.

FCERA MISSION STATEMENT AND CORE VALUES

Our mission is to - provide secure retirement benefits to our members and beneficiaries while investing the assets of the Plan within prudent levels of risk.

Excellence • Professionalism • Teamwork • Integrity • Accountability • Innovation
"The County of Fresno is an Equal Employment Opportunity Employer."

We envision ourselves as - *a trusted and stable partner in the financial security of FCERA's sponsors, members, and beneficiaries.*

Our value lies in our commitment to deliver service in an accurate, courteous, prompt and professional manner. Our goal is to provide the highest level of service to our members, the public, our coworkers, and the Board of Retirement. We value:

- *Excellence* - We hold ourselves to high standards of performance demonstrating a value for learning and continuous improvement. We take pride in the work we do, continuously striving to exceed our goals. We encourage an open and diverse environment and a “CAN DO” attitude.
- *Professionalism* - We encourage a professional environment, maintaining confidentiality and performing job functions in an ethical and objective manner. As professionals, we understand the importance of listening to and respecting others’ ideas and perspectives open-mindedly. Professionalism is necessary to keep all employees motivated.
- *Teamwork* - We are committed to a team-oriented approach to provide the highest level of service to our members. We value open communication, sharing knowledge, resources and ideas. Working together to reach common goals is the essence of success. Together we achieve more.
- *Integrity* - We at FCERA act ethically and honestly, honoring our commitments, abiding by policies, and building trust with our members and co-workers. Integrity guides all of our work relationships.
- *Accountability* - We take ownership of our work to provide accurate, complete, and timely results. We accept the responsibility to communicate and interact openly with all FCERA staff to develop the tools and training necessary to complete our assignments. We will take the initiative to be a part of the success of the FCERA team.
- *Innovation* - We promote a resourceful environment where new ideas and approaches are implemented to help our daily tasks flow smoothly and efficiently. Our focus is on proactively communicating and implementing activities to encourage and energize staff to create a positive environment and seek new ways to educate and inform members about the retirement process. It is our goal to plan strategically for the future.

FCERA AND ITS SERVICES

FCERA is a cost-sharing multiple employer public retirement system established by the County of Fresno (the “County”) Board of Supervisors on January 1, 1945 to provide retirement, disability, death and survivor benefits for its members under the California State Government Code, Section 31450 *et. seq.* (the County Employees Retirement Law of 1937, hereinafter “CERL”) and Section 7522 *et. seq.* (the Public Employees’ Pension Reform Act of 2013, hereinafter “PEPRA”). The retirement plan is administered by the Board, which consists of nine voting members and a retiree alternate, who are presented on page 11 of the Introductory Section.

FCERA is governed by the California Constitution, CERL, PEPRA, and regulations, procedures, and policies adopted by the Board. The Fresno County Board of Supervisors may also adopt resolutions, as permitted by the CERL, which may affect benefits for FCERA members.

The Board is responsible for establishing policies governing the administration of the retirement plan, determining benefit allowances, and managing the investments of the Association's assets. The Board defines the duties and oversees the activities of the Retirement Administrator, who in turn, directs and oversees the staff and operations of the Administrative Office.

Participating employer entities ("Sponsors") include:

- County of Fresno
- Superior Court of California, County of Fresno
- Clovis Veterans Memorial District
- Fresno-Madera Area Agency on Aging
- Fresno Mosquito & Vector Control District

FINANCIAL INFORMATION

As mentioned previously, management is responsible for the accuracy, completeness, fair presentation of information and all disclosures in this Report. In addition, management is also responsible for establishing and maintaining an internal control structure designed to provide reasonable assurance that FCERA's financial reporting is accurate and reliable. The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits likely to be derived, and the valuation of the cost and benefits requires estimates and judgments by management.

CliftonLarsonAllen, LLP (the "Auditor") provides financial statement independent audit services to FCERA. The Auditor attests that these financial statements are presented in accordance with GAAP and that the financial statements are free of any material misstatement. Management is responsible for assuring that internal accounting controls are sufficient to provide reasonable assurance regarding the safekeeping of assets and fair presentation of the financial statements and supporting schedules. Controls have inherent limitations and do rely on human diligence. Because of these inherent limitations, the internal controls are not exact in their nature, which may lead to the risk that errors or misstatements may occur and may not be identified immediately. FCERA's current management believes it has prudent and sufficient controls in place to mitigate the inherent risk within its financial reporting and accounting systems.

The accompanying financial statements and transactions are prepared on an accrual basis of accounting. Revenues are recognized when earned, regardless of the date of collection and expenses are recognized when incurred, regardless of when a corresponding cash outlay is made.

GENERAL OPERATIONS

Providing secure retirement benefits to our members and beneficiaries begins with ongoing direct services to active and retired members, efficient management of the office and business operations and facilitating the work of the Board, advisors, and professional service providers. To follow are several noteworthy events and ongoing projects occurring during the year.

Board Oversight and Policy Framework

Nathan Magsig served as Chair of the Board with Stanley McDivitt serving as Vice Chair for the entire fiscal year with their terms as officers set to expire December 31, 2020. The Board had two changes during the fiscal year with the election of Laura Basua to the Retired Member seat (Number 8) replacing Robert Dowell, and the election of Douglas Papagni to the Alternate Retired member seat (Number 8 Alternate) replacing Mary Ann Rogozinski. Their terms began January 1, 2020 and expire December 31, 2022. Laura previously served as a General Member elect, serving from 2012 to 2017. An election for our General Member seat (Number 3) and Safety Members seat (Number 7) is currently underway for the seats filled by Riley Talford and John Robinson.

This year the Board of Retirement approved three new Board Level policies. The first was the Pensionable Pay Policy consolidating past Board of Retirement actions into one document that also sets forth procedures for FCERA and participating employers to follow when adding, deleting or modifying pay codes. The second was the Divorce Policy providing a framework for how FCERA handles members' dissolutions of marriage, terminations of domestic partnerships, and legal separations, and providing a resource to FCERA members and their non-member spouses who are considering, undertaking, or have already completed such action. The third was the Succession Plan Policy establishing succession plan procedures for temporary and permanent absences of the executive management positions to help limit the problems of leadership transition and to provide a degree of stability.

The Board also clarified FCERA's mission statement and formulated FCERA's first vision statements expressed in the beginning of this letter.

Benefit Delivery, Administration and Operations

In February 2017, FCERA formed a limited liability company, FCERA Realty Group LLC (the "LLC"), to acquire three properties 7766, 7772 and 7778 N Palm Avenue. FCERA initially leased 7772 and 7778 from the LLC, but found that the property tax exemption would not transfer over to the LLC, so the LLC transferred the properties to FCERA on October 2, 2019 and the two administrative buildings will appear in the next CAFR as capitalized assets. The third office building, 7766 North Palm Avenue, is currently 33% leased. Separate financial statements for the LLC may be found on FCERA's website, and the LLC investment is reported in FCERA's Statement of Fiduciary Net Position under the investments at fair value.

This fiscal year, the Board conducted an extensive review of its insurance coverages and a search for broker services with the help of Commercial Insurance Consultants resulting in the

addition of coverage and a reduction in cost. Contracts for both the Actuary, Segal Consulting, and the Board's Counsel, Baker Manock & Jensen PC were extended for an additional year. Datafied, Inc. and National Disability Evaluators, providing records collection and initial disability evaluations were also extended an additional year, facilitating timely application processing.

Operations were impacted by the 2019 novel coronavirus ("COVID-19") outbreak resulting in one third of the staff initially isolating at home for 10 business days, and closing the offices to the public since March 18, 2020. FCERA's services are considered essential and FCERA's office buildings have adequate spacing to permit social distancing. Members are being serviced over telephone, email and video conferencing. Staff not required to isolate due to health risks or exposure symptoms are reporting to their worksite. Management has taken precautions, in case there is a requirement to fully close the offices, and has developed a COVID-19 Protection Plan for staff currently working in the offices. Reopening to the public does not appear to be safe and practical as of this writing and will be considered regularly with appropriate safety protocols implemented prior to opening.

This year the Board of Retirement approved a new Procurement and Purchasing Card policies tightening controls on administrative expenditures. The Board also split the Disability policy from the Administrative Hearings and Appeals to the Board policy.

This fiscal year, the Board renewed its relationship with Reed Smith as Fiduciary/Conflicts counsel.

Staffing

There were a number of staffing changes during the fiscal year. We welcomed Doug K. as our first Investment Officer, expanding internal investment staff resources. We also welcomed: Jeremy D. and Ashley Q., Office Assistants; Clarissa M. and Marianne T., Account Clerks; and, Lauren B. and Michael C., Retirement Specialists. Jared W. promoted from Retirement Specialist to Communications Analyst, replacing Maria B. who departed last fiscal year. We said goodbye to Michelle H. and Unique A., Office Assistants and Vernice L., Retirement Technician this fiscal year. We also said a heartfelt "Goodbye" to Doris R., Assistant Retirement Administrator, who accepted a promotional opportunity with Mendocino County Employees' Retirement Association. Patti M., our Benefits Manager, filled the role as the Interim Assistant Retirement Administrator through the end of the fiscal year and until September 8, 2020, when the Board selected Deborah P., former Deputy CAO of Fresno County, as the new Assistant Retirement Administrator.

ASSET MANAGEMENT AND INVESTING

The Investment Policy Statement (the "IPS") adopted by the Board defines the framework within which the administration, general consultant and third party investment managers endeavor to meet our mission to *...achieve investment and funding objectives within prudent levels of risk.*

The overall strategic asset allocation has a greater impact on investment performance than portfolio manager selection or the timing of allocations. The asset allocation process determines a fund's optimal target allocations, which are expected to achieve the fund's objectives related to expected return, liquidity and risk (defined as volatility). This is reflected through the choice of investments at the asset class level.

Under the IPS the Board operates under a standard of fiduciary care in California commonly known as the "prudent person rule" which requires that the Board discharge its duties with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims. When the Board contracts with professional investment advisors, their discretion is defined by our IPS and the discretion provided by contract and guidelines prescribed by the Board. In exercising discretion when managing assets, such service providers become co-fiduciaries to the members.

The prudent person rule requires the Board to diversify the investments of the fund, unless it is clearly prudent not to do so under the circumstances. The Board therefore makes fundamental (basic) policy decisions with respect to the fund, including, but not limited to, the strategic allocation of assets to various investment classes as outlined in the IPS. The table below displays the year-end/beginning and future asset allocation targets to be achieved as part of the asset allocation glide path, started in June 30, 2018, and modified over the course of the period for significant market movements or other Board directed changes :

	7/1/2019	7/1/2020	10/1/2020	1/1/2021
• Equities.....	40%	47%	48%	49%
• Fixed Income	27%	26%	26%	26%
• Real Assets	11%	9%	9%	11%
• Private Credit and Private Equity ...	14%	14%	14%	14%
• Hedge Strategies	8%	4%	3%	0%

The Board intends to increase FCERA's allocation to Equities to 49% by January 1, 2021, with offsetting decreases to fixed income and Hedge Strategies. In the fiscal year to come, the Board is exploring changing the composition of its fixed income to be more defensive, reducing allocations to corporate bond, high yield bond, bank loan, emerging market debt, and global bond strategies to fund more core bonds as outlined in the following table:

	7/1/2020	Long-Term Target
• Core Fixed Income.....	7%	15%
• Global Sovereign ex-US	5%	4%
• High Yield Corporate Credit	5%	2%
• Bank Loans	5%	2%
• Emerging Market Debt (Local)	4%	3%

Leading off this fiscal year, staff implemented a reduction in the amount of active manager risk and active manager fees that FCERA incurs by approving a plan to have 75% of its Domestic Large Cap Equity and 50% of its International Developed Large Cap Equity managed passively by Northern Trust. This reduced the amounts managed by AJO, T. Rowe Price, Artisan Partners, and Research Affiliates.

There have been a number of investment related investment manager changes this fiscal year:

- Selected Northern Trust to replace State Street Global Advisors for FCERA's passive mandates.
- Liquidated the active Commodities allocation managed by Invesco and the passive Treasury Inflation-Protected Securities (TIPS) allocation managed by Northern Trust.
- Began the liquidation of the Hedge Strategies overseen by Grosvenor Asset Management.
- Approved a \$40M allocation to TCW TALF Opportunities Fund. TALF is a Term

Asset-Backed Securities Loan Facility created by the U.S. Federal Reserve.

Other investment related activities included 1) implementing a custody driven internal investment compliance monitoring process by staff with the assistance of Northern Trust to establish the criteria, 2) ceasing participation in a handful of Limited Partner Advisory Committees, further adjusting Equity benchmarks and benchmarking the passive allocations to the new benchmarks, and 3) widening the bands in FCERA's cash overlay program and setting a notional value hard cap.

ACTUARIAL FUNDING STATUS

The CERL prescribes that the Board should engage a qualified, independent actuarial firm to perform regular valuations of the retirement plan. Further, a detailed study of the retirement plan's economic and non-economic assumptions (forecast parameters) is undertaken every three years, wherein the fund actuary makes recommendations to the Board regarding the assumptions to be used to measure the liabilities and assets of the fund. The primary purpose for these studies is to help determine the actuarially required (and stable) level of contributions needed to meet costs associated with annually accruing benefit commitments (normal cost) and eliminate any past unfunded liabilities (Unfunded Actuarial Accrued Liability or "UAAL") within an accepted amortization period.

The actuarial valuation as of June 30, 2019, completed by Segal Consulting, determined that the ratio of plan assets to plan liabilities was 81.67%, based on a valuation value of assets, which represented an increase over the same ratio on June 30, 2018, of 81.49%. Our funding policy employs a five-year "smoothing" methodology, whereby 20% of a fiscal year's market loss, or gain, in a given fiscal year, is recognized over each of five succeeding years to dampen the "noise" of short-term investment market volatility, creating a lesser "actuarial" loss, or gain. This results in five year "layers" of actuarial losses and gains, resulting in one net actuarial loss or gain that goes into the valuation and determination of employer contributions. In addition, the policy imposes an absolute "corridor" of +/- 30% to the actuarial valuation value of assets (VVA) relative to the market value of assets (MVA). This constrains the variance between the VVA and MVA and prevents the employer contribution requirements from not being sufficient on one side of the corridor, or from being too high on the other side of the corridor. These techniques are used to produce reliable, stable and incrementally manageable changes to required contributions for participating employers.

On April 17, 2019, the Board approved the Actuarial Experience Study for the period of July 1, 2015 to June 30, 2018, lowering the inflation assumption from 3.00% to 2.75%, keeping the assumed rate of return at 7.00% and the salary assumption at 0.50% above inflation. The Board also further adjusted mortality assumptions up to reflect continued increases in longevity. These will be reflected in the next three fiscal years. The assumed rate of return has a direct effect on employer contributions relative to market performance whereby any return of less than 7.00% is considered an actuarial loss, and actuarial gains are not realized until after 7.00% is exceeded.

The explicit administrative expense assumption was 1.20% of payroll and is added to both the employer and member Basic Regular rates as a proportional percentage of payroll resulting in an Administrative Expense Load of 1.04% for employers and 0.16% for members.

BUDGET

Government Code Section 31580.2(a) requires the Board to annually adopt a budget covering the entire expense of administration of the retirement system. The total administrative expenses, which are funded as a component of the member and employer contribution rates, may not exceed the greater of twenty-one hundredths of one percent of the accrued actuarial liability of the system, or two million dollars (\$2,000,000), as adjusted annually by the amount of the annual cost of living adjustment, which is the legislative cap (CAP) on spending.

Government Code Section 31580.2(b) provides an exclusion from the CAP for expenses for computer software, computer hardware, and computer technology consulting services in support of these computer products. These costs are identified as information technology costs herein. While these costs are excluded from the CAP, they are subject to the approval of the Board.

Government Code Section 31596.1 provides that the following types of expenses shall not be considered a cost of administration of the retirement system, but shall be considered as a reduction in earnings from those investments or a charge against the assets of the retirement system as determined by the Board:

- (a) The costs, as approved by the board, of actuarial valuations and services rendered pursuant to Section 31453.
- (b) The compensation of any bank or trust company performing custodial services.
- (c) When an investment is made in deeds of trust and mortgages, the fees stipulated in any agreement entered into with a bank or mortgage service company to service such deeds of trust and mortgages.
- (d) Any fees stipulated in an agreement entered into with investment counsel for consulting or management services in connection with the administration of the board's investment program, including the system's participation in any form of investment pool managed by a third party or parties.
- (e) The compensation to an attorney for services rendered pursuant to Section 31607 [investment related legal work] or legal representation rendered pursuant to Section 31529.1 [Los Angeles County Employees' Retirement Association specific].

The cost of these items are controlled through contract negotiations and are not subject to the Administrative budget process, primarily due to the legally mandated aspects of the actuarial valuations, the fiduciary requirements of hiring investment consulting and investment related legal services, and the de facto fees required to obtain market exposure and to track the investments. These items are not included in the Fiscal Year 2019-20 Administrative Budget.

For fiscal year ended June 30, 2020, administrative expenses of \$6,422,136 represented approximately 0.11% of the accrued actuarial liability of the plan of \$6,086,654,000. Administrative expenses have historically been well below the statutory limit of 0.21%.

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 FCERA for its CAFR for the fiscal year ended June 30, 2019, on page 10 of the Introductory Section, which marks twenty-three consecutive years that FCERA has achieved this prestigious award. FCERA also received the GFOA award for Outstanding Achievement in Popular Annual Financial Reporting (PAFR) since first applying June 30, 2011 for nine consecutive years. The PAFR provides FCERA's membership with condensed and concise information in an easier to read format than is presented in the CAFR.

ACKNOWLEDGMENTS

The preparation of this CAFR reflects the combined efforts of the FCERA staff Patti Montoya, Conor Hinds and their supportive staff, and the consultants, Verus, Segal Consulting, and our external auditor CliftonLarsonAllen, LLP, all who made significant contributions of time, effort, and expertise.

Lastly, FCERA has many contributors to its success. For their commitment to FCERA, and for their diligent work to assure FCERA's continued successful operation, sincere thanks are owed to the Board of Retirement trustees, all FCERA staff, and all of our experts and advisors.

Respectfully submitted,

A handwritten signature in black ink that reads "Donald C. Kendig". The signature is written in a cursive, flowing style.

Donald C. Kendig, CPA
Retirement Administrator

Certificate of Achievement



Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

**Fresno County Employees' Retirement Association
California**

For its Comprehensive Annual
Financial Report
For the Fiscal Year Ended

June 30, 2019

Christopher P. Morill

Executive Director/CEO

The Board of Retirement As of June 30, 2020



CHAIRMAN
NATHAN MAGSIG, MBA, MS
Appointed by Board of Supervisors
Present term expires December 31, 2020



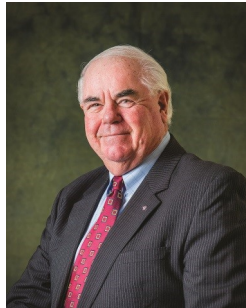
VICE CHAIRMAN
STANLEY L. MCDIVITT
Appointed by Board of Supervisors
Present term expires December 31, 2020



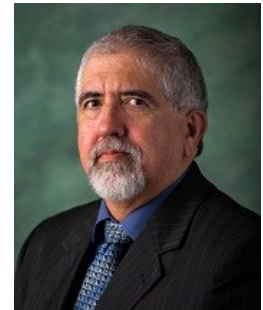
MEMBER
JOHN ADAMS
Elected by General Members
Present term expires December 31, 2021



RETIRED MEMBER
LAURA BASUA
Elected by Retirees
Present term expires December 31, 2022



MEMBER
ROD COBURN, III, DDS
Appointed by Board of Supervisors
Present term expires December 31, 2021



MEMBER
OSCAR J. GARCIA, CPA
Auditor-Controller/Treasurer-Tax Collector
Ex-Officio Trustee



MEMBER
STEVEN JOLLY
Appointed by Board of Supervisors
Present term expires December 31, 2021



MEMBER
JOHN ROBINSON
Elected by Safety Members
Present term expires December 31, 2020



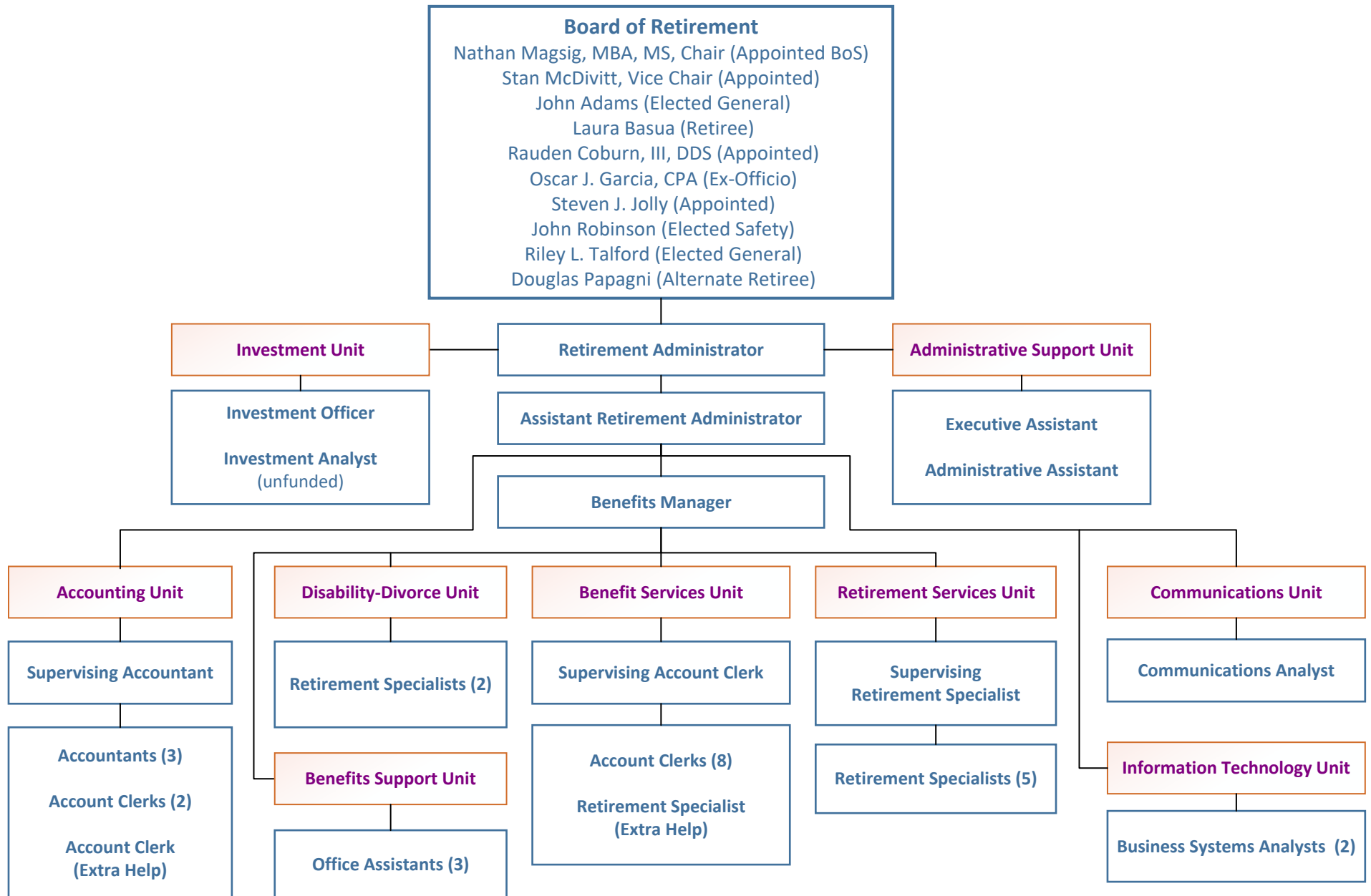
MEMBER
RILEY TALFORD
Elected by General Members
Present term expires December 31, 2020



ALTERNATE RETIRED MEMBER
DOUGLAS PAPAGNI
Alternate Retired Member - Elected by Retirees
Present term expires December 31, 2022

Fresno County Employees' Retirement Association

Fiscal Year 2019-20



Total number of permanent positions authorized – 36

Total number of extra-help positions authorized – 2

Total number of permanent positions funded – 37

List of Professional Consultants

Actuarial Services

- Actuary: Segal Consulting

External Audit Services

- Auditor: CliftonLarsonAllen, LLP

Custodial Services

- Custodian Bank: Northern Trust

Investment Consulting Services

- General Investment Consultant: Verus
- Hedge Fund Consultant: Grosvenor Capital Management L.P.
- Private Credit Consultant: The Carlyle Group
- Private Equity Consultant: Hamilton Lane

Legal Services

- Board Counsel: Baker, Manock & Jensen PC
- Disability Hearing Counsel: Fresno County Counsel
- Fiduciary Counsel: Reed Smith LLP
- Investment Counsel: Foster Pepper PLLC and Foley Lardner LLP
- Securities Monitoring & Litigation Counsel:
 - Berman Tabacco
 - Bernstein Litowitz Berger & Grossmann LLP
 - Cohen Milstein Sellers & Toll PLLC

Securities Lending Services

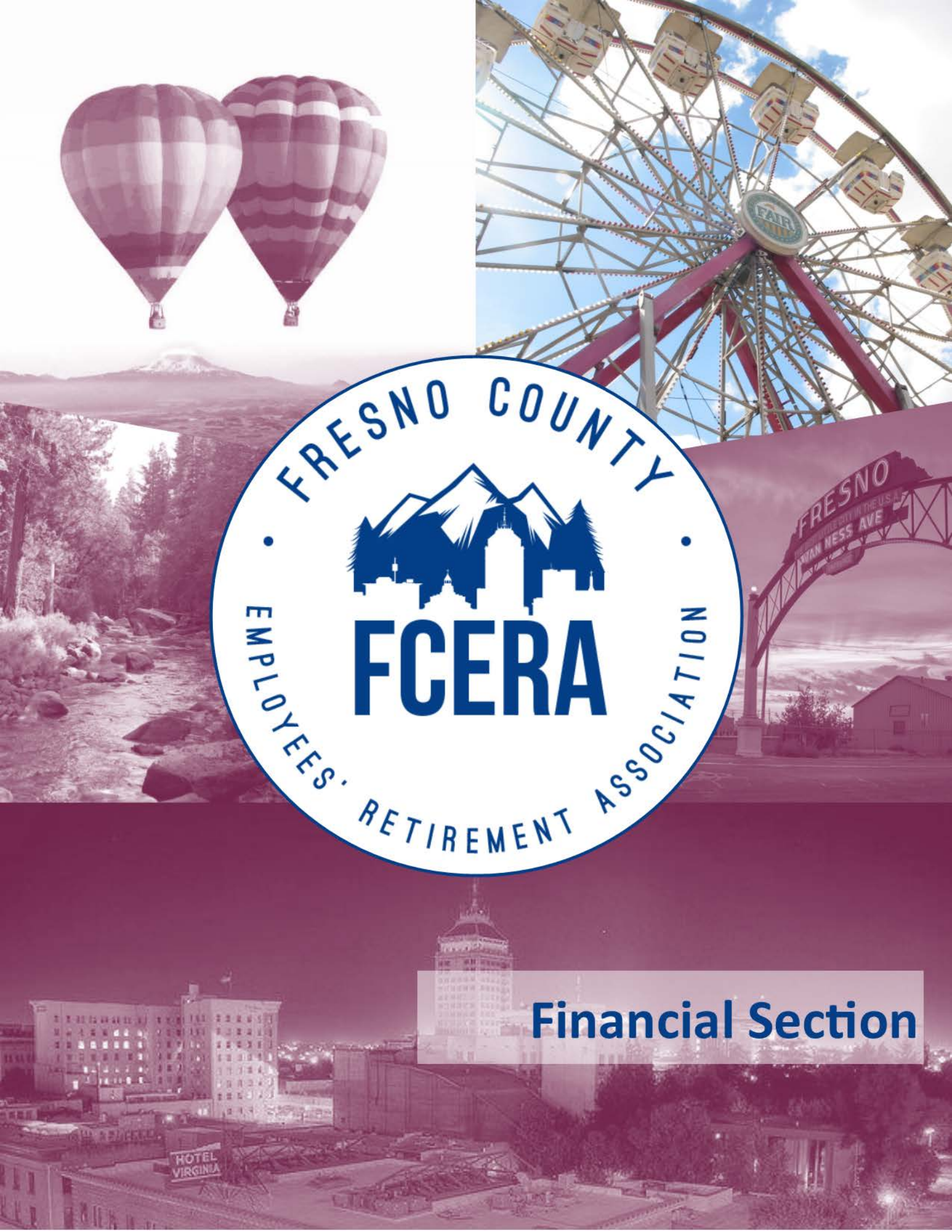
- Asset Servicer: Northern Trust

Pension Management System Services

- Arrivos System Support: Tegrit Group

A complete list of Investment Managers, Schedule of Fees, and Schedule of Commissions can be found on pages 73, 74, and 75 of the Investment Section.

This Page Left Intentionally Blank



Financial Section



INDEPENDENT AUDITORS' REPORT

Board of Retirement
Fresno County Employees' Retirement Association
Fresno, California

Report on the Financial Statements

We have audited the accompanying financial statements of the Fresno County Employees' Retirement Association (the Plan), which comprise the statement of fiduciary net position and statement of changes in fiduciary net position, as of and for the year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise the Plan's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

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

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

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the Plan as of June 30, 2020, and the changes in its fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Prior-Year Comparative Information

We have previously audited the Plan's 2019 financial statements, and we expressed an unmodified audit opinion on those audited financial statements in our report dated December 9, 2019. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2019, is consistent, in all material respects, with the audited financial statements from which it has been derived.

Required Supplementary Information

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

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Plan'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 is not a required part of the basic financial statements.

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

We also previously audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the Plan as of and for the year ended June 30, 2019 (not presented herein), and have issued our report thereon dated December 9, 2019,

which contained an unmodified opinion on the financial statements. The summarized comparative information included in the other supplementary information, as listed in the table of contents, for the year ended June 30, 2019, is presented for purposes of additional analysis and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the 2019 financial statements. The 2019 summarized comparative information has been subjected to the auditing procedures applied in the audit of the 2019 financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare those financial statements or to those financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the 2019 summarized comparative information is fairly stated in all material respects in relation to the financial statements as a whole for the year ended June 30, 2019.

The introductory, investment, actuarial and statistical sections listed 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 express no opinion or provide any assurance on them.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated December 15, 2020, on our consideration of the Plan's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Plan's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Plan's internal control over financial reporting and compliance.

A handwritten signature in cursive script that reads "CliftonLarsonAllen LLP".

CliftonLarsonAllen LLP

Denver, Colorado
December 15, 2020

Management's Discussion and Analysis as of June 30, 2020

The Fresno County Employees' Retirement Association (FCERA) management's discussion and analysis is designed to present a narrative overview of the financial activities of FCERA and an analysis of FCERA's financial performance during the fiscal year ended June 30, 2020. Please read it in conjunction with the transmittal letter at the front of this report and FCERA's basic financial statements following this section. All dollar amounts are expressed in thousands unless otherwise indicated.

Financial Highlights

- FCERA's fiduciary net position at the close of fiscal year 2020 totaled \$4.9 billion, relatively unchanged from 2019, primarily as a result of the overall market conditions due to the COVID-19 pandemic.
- Total additions, as reflected in the Statement of Changes in Fiduciary Net Position, for the year ended June 30, 2020, were \$302.3 million, which includes employer and employee contributions of \$289.2 million, investment income of \$12.5 million, and net securities lending income of \$529 thousand.
- Employer contributions increased from \$225.5 million in fiscal year 2019 to \$247.5 million in fiscal year 2020 primarily as the result of an increase in contribution rates and an increase in total payroll. Contribution rates are applied on a July 1 through June 30 fiscal year basis and increased as of July 1, 2019. The recommended employer contribution rate increased from 54.09% (2017 valuation effective 7/1/2018) to 55.81% (2018 valuation effective 7/1/2019).
- While the average plan member contribution decreased from 9.34% (2017 valuation effective 7/1/2018) to 9.31% (2018 valuation effective 7/1/2019), member contributions increased for fiscal year 2020 when compared to 2019, mainly due to an increase in age-weighted contribution rates and an increase in total covered payroll. For fiscal years 2020 and 2019, plan member contributions were \$41.8 million and \$40.5 million, respectively.
- Total deductions, as reflected in the Statement of Changes in Fiduciary Net Position, increased from \$286.1 million to \$301.5 million over the prior year, or approximately 5.4%, mainly attributed to the pension payroll. Benefits paid to retirees and beneficiaries increased from \$277.4 million in 2019 to \$292.7 million in 2020, or approximately 5.5%. This increase can be attributed to an increase in the number of retirees and an annual cost of living adjustment (COLA) increase of 3% for existing retirees.
- FCERA's funding objective is to meet long-term benefit obligations through contributions and investment income. As of June 30, 2019, the date of FCERA's last actuarial valuation, the funded ratio for FCERA was 81.7%. In general, this indicates that for every dollar of projected benefits due FCERA has approximately \$0.81 to cover its obligation.

Management's Discussion and Analysis as of June 30, 2020 continued

- For the fiscal year ending June 30, 2020, FCERA's investment portfolio earned a 1.0% return net of fees across its major asset classifications, with domestic equity returning 4.2%, international equity assets returning -4.9%, and the fixed income portfolio returning 1.7%. Real estate returning 0.5%, infrastructure returning 11.5%, hedge funds returning -0.4%, and private equity and private credit returning 8.3% and -0.4%, respectively.

Overview of the Financial Statements

The following narrative is an introduction to FCERA's basic financial statements. FCERA's basic financial statements consists 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
4. Required Supplementary Information
5. Other Supplementary Information

The Statement of Fiduciary Net Position presents information on FCERA's financial position as of the end of the fiscal year and contains information on total Plan assets and total liabilities with the residual of these elements being reported as fiduciary net position. It presents the assets available for future payments of benefits to retirees and beneficiaries and the current liabilities owed as of June 30, 2020.

The Statement of Changes in Fiduciary Net Position reports on the inflows and outflows of resources that increased and decreased the Plan's net position and contains information on additions and deductions with the net results of these elements reported as a net increase or decrease in fiduciary net position. Over time, increases or decreases in net position may serve as a useful indicator of whether FCERA's financial position is improving or deteriorating.

The Notes to the Basic Financial Statements provide additional information that is essential to a full understanding of the data provided in the financial statements. They are an integral part of the financial statements and should be read in conjunction with them. The notes provide detailed discussion of key policies, programs, and activities that occurred during the fiscal year.

Required Supplementary Information includes the Schedule of Employer Contributions, Schedule of Investment Returns, Actuarial Methods and Assumptions, and Schedule of Changes in Net Pension Liability and Related Ratios. Each schedule, as required by GASB 67, presents historical trend information about actuarially determined contributions, investment returns of the Plan and the overall net pension liability.

Other Supplementary Information includes schedules of administrative expenses, information technology expenses, investment expenses, and payments to consultants which are presented following the Required Supplementary Information.

Management's Discussion and Analysis as of June 30, 2020 continued

The financial statements and the required disclosures are in compliance with accounting principles generally accepted in the United States of America and reporting guidelines as set forth by the Governmental Accounting Standards Board (GASB), using the accrual basis of accounting. FCERA complies with all material requirements of these principles and guidelines.

All of the current year's additions and deductions are taken into account regardless of when cash is received or paid. All investment gains and losses are shown at trade date, not settlement date. In addition, both realized and unrealized gains and losses are shown on investments, and all capital assets are depreciated over their useful lives.

Other factors, such as market conditions, should be considered in measuring FCERA's overall financial strength.

Financial Analysis

As of June 30, 2020, FCERA has total assets of \$5.3 billion. After accounting for current liabilities of \$381.6 million, FCERA has \$4.9 billion in net position restricted for pension benefits which (approximately) is the same value as reported at June 30, 2019. The net position restricted for pension benefits is available to meet FCERA's ongoing obligation to plan participants and their beneficiaries.

As of June 30, 2020 fiduciary net position remained flat compared to 2019, although there was a small increase to fiduciary net position, year over year, the impact of the COVID-19 pandemic on all financial markets in the month of March 2020 caused significant temporary unrealized losses. Markets rebounded by June 2020 due to actions by the Federal Reserve Board to lower interest rates as well a stimulus package from the Treasury Department. Current assets including cash and cash equivalents increased over the prior year, and accounts receivable from the sale of securities yet to settle, increased over the prior year due to year end portfolio rebalancing. Current liabilities, mainly consisting of administrative payables, cash collateral payable for securities lending and investment payables from the purchase of investments that have yet to settle, nearly tripled over prior year primarily due to the timing of unsettled trades as part of the portfolio rebalancing at June 30, 2020.

Capital Assets

FCERA's investment in capital assets increased from \$10.9 million to \$14.5 million (net of accumulated depreciation). The investment in capital assets includes the administrative building, pension administration system, servers, equipment, and furniture. The 33% increase in FCERA's investment in capital assets from 2019 to 2020 was primarily due to the transfer in of the administration buildings from the FCERA Realty Group, LLC in October 2019.

FCERA follows the California Government Code Section 31580.2 that states that expenses for software, hardware, and computer technology consulting services in support of the computer

Management's Discussion and Analysis as of June 30, 2020 continued

products shall not be a cost of the administration of the retirement system. During fiscal year 2020, FCERA's expenses for software, hardware, and computer technology consulting services decreased from \$399,534 to \$326,528. The decrease was primarily due to a reduction in the cost of the IT Infrastructure (capitalized costs).

Condensed Statement of Fiduciary Net Position

June 30, 2020 and 2019

(Dollars in Thousands)

	2020	2019	% Change 2020-2019
Current Assets	\$ 625,549	\$ 395,497	58.2%
Investments	4,676,871	4,661,979	0.3%
Capital Assets, net	14,511	10,896	33.2%
Total Assets	5,316,931	5,068,372	4.9%
Total Liabilities	381,636	133,865	185.1%
Fiduciary Net Position			
Restricted for Benefits	\$ 4,935,295	\$ 4,934,507	0.0%

FCERA has annual funding valuations completed by its independent actuary, Segal Consulting. The purpose of the valuation is to determine the future contributions by the members and employers needed to pay expected future benefits. Despite variations in the stock market, FCERA's management and independent actuary concur that FCERA remains in a financial position that will enable the plan to meet its obligations to participants and beneficiaries. FCERA remains focused on the long-term performance of the Plan, a strong and successful investment program, risk management, and strategic planning.

Management's Discussion and Analysis as of June 30, 2020 continued

FCERA's Activities

Condensed Statement of Changes in Fiduciary Net Position

For the Fiscal Years Ended June 30, 2020 and 2019

(Dollars in Thousands)

	2020	2019	% Change 2020-2019
Employer Contributions	\$ 247,474	\$ 225,492	9.7%
Plan Member Contributions	41,761	40,463	3.2%
Net Investment Income, before Securities Lending	12,568	254,359	-95.1%
Net Securities Lending Income	529	442	19.7%
Total Additions	302,332	520,756	-41.9%
Pension Benefits	292,775	277,417	5.5%
Refunds	2,217	2,615	-15.2%
Administrative	6,422	5,981	7.4%
Other	130	107	21.5%
Total Deductions	301,544	286,120	5.4%
Change in Fiduciary Net Position	\$ 788	\$ 234,636	-99.7%

Additions to Fiduciary Net Position

The primary sources to finance the benefits that FCERA provides to its members are accumulated through the collection of member (employee) contributions, employer contributions, and through earnings on investments (net of investment expenses). Net Investment Income, before Securities Lending, for the years ended June 30, 2020 and 2019, totaled \$12.6 million and \$254.4 million, respectively.

FY 2020, total additions were \$302.3 million, a decrease from FY 2019 of -41.9%, primarily due to a reduction in net investment income. The Investment Section of this report reviews the result of investment activity for fiscal year ended June 30, 2020.

Deductions from Fiduciary Net Position

The primary uses of FCERA's assets include the payment of benefits to retirees and their beneficiaries, refunds of contributions to terminated employees, and the cost of administering the Plan. Deductions in the fiscal year ended June 30, 2020, totaled \$301.5 million, an increase of 5.4% over fiscal year 2019. The increase is mostly attributed to the growth in the number of retirees and amount of benefits paid to retirees year over year.

The Board of Retirement (Board) approves the annual budget for FCERA. California Government Code Section 31580.2(a) limits the annual administrative expenses to not exceed the greater of either of the following: (1) twenty-one hundredths of one percent (0.21%) of the accrued actuarial liability of the retirement system; (2) two million dollars (\$2,000,000), as adjusted annually by the amount of the annual Cost of Living Adjustment (COLA) computed in accordance with Article 16.5. The 2020 Technology Budget represented a decrease in

Management's Discussion and Analysis as of June 30, 2020 continued

appropriations of \$111,240. As mentioned in the capital assets section of this analysis, expenses for computer software, computer hardware, and computer technology consulting services in support of these computer products are not considered a cost of administration of the retirement system. FCERA has consistently met its administrative expenses budget for the current fiscal year and all prior fiscal years.

Net Pension Liability

GASB Statement No. 67 requires, FCERA to report the Total Pension Liability and the Net Pension Liability as calculated by FCERA's actuary. It is important to note that these liabilities are solely calculated for financial reporting purposes and are not intended to provide information about the Plan's funded status.

FCERA's Total Pension Liability as of June 30, 2020, was \$6.3 billion, resulting in an increase of 4.3% from \$6.1 billion as of June 30, 2019. FCERA's Net Pension Liability as of June 30, 2020, was \$1.4 billion, representing an increase of 23% from \$1.1 billion as of June 30, 2019. This \$260.8 million increase in liabilities is primarily due to a result of failing to meet the expected assumed rate of return of 7.0% and the resulting impact on Fiduciary Net Position.

GASB Statement No. 67 requires reporting the Fiduciary Net Position as a percentage of the Total Pension Liability. For the fiscal years ended June 30, 2020 and 2019, the Fiduciary Net Position as a percentage of the Total Pension Liability is reported as 78.02% and 81.37% respectively.

Net Pension Liability

As of June 30, 2020 and 2019

(Dollars in Thousands)

	2020	2019	\$ Change 2020-2019	% Change 2020-2019
Total Pension Liability	\$ 6,326	\$ 6,064	\$ 262	4.3%
Less: Fiduciary Net Position	(4,935)	(4,934)	(1)	0.0%
Net Pension Liability	\$ 1,391	\$ 1,130	\$ 261	23.1%
Fiduciary Net Position as a				
Percentage of Total Pension Liability	78.02%	81.37%		

Management's Discussion and Analysis as of June 30, 2020 continued

FCERA's Fiduciary Responsibilities

The Board, plan management, and staff are fiduciaries of the pension trust fund. Under the California Constitution, the assets can only be used for the exclusive benefit of Plan participants and their beneficiaries.

Requests for Information

This financial report is designed to provide the Board, our membership, taxpayers, investment managers, and others with a general overview of FCERA's financial condition and to demonstrate FCERA's accountability for the funds under its stewardship. Questions or requests for additional financial information should be addressed to:

FCERA
Attn: Accounting Unit
7772 N. Palm Avenue
Fresno, CA 93711

Respectfully submitted,

A handwritten signature in blue ink that reads "Deborah Paolinelli". The signature is written in a cursive, flowing style.

Deborah Paolinelli, CPA
Assistant Retirement Administrator
December 16, 2020

Basic Financial Statements

Statement of Fiduciary Net Position

As of June 30, 2020, with Comparative Totals

(Dollars in Thousands)

	2020	2019
Assets		
Cash and cash equivalents with fiscal agents	\$ 284,243	\$ 267,413
Securities lending investments pool:		
Short-term investments	92,282	31,757
Receivables:		
Investment trades receivable	221,681	67,111
Interest and dividends receivable	15,801	18,571
Administrative receivable	26	24
Contributions receivable	11,182	10,354
Securities lending receivable	53	101
Total Receivables	248,743	96,161
Investments, at fair value:		
Domestic and international fixed income	1,446,818	1,529,239
Domestic and international equities	2,080,406	1,793,687
Private equity	433,010	508,013
Real estate	241,872	242,656
Hedge funds	96,762	336,514
Private credit	378,003	251,870
Total Investments	4,676,871	4,661,979
Prepaid expenses	281	166
Capital assets:		
Nondepreciable	1,165	24
Depreciable, net of accumulated depreciation	13,346	10,872
Total Capital Assets, Net	14,511	10,896
Total Assets	5,316,931	5,068,372
Liabilities		
Accounts payable - purchase of investments	287,266	99,579
Cash collateral payable for securities lending	92,282	31,757
Administrative accounts payable	2,076	2,480
Securities lending bank and broker fees	12	49
Total Liabilities	381,636	133,865
Fiduciary Net Position Restricted for Pension Benefits	\$ 4,935,295	\$ 4,934,507

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, 2020, with Comparative Totals

(Dollars in Thousands)

	2020	2019
Additions		
Contributions:		
Employers	\$ 247,474	\$ 225,492
Plan members	41,761	40,463
Total Contributions	289,235	265,955
Investment Income:		
From Investment Activities:		
Net appreciation/(depreciation) in fair value of investments Interest	(107,582)	111,022
Dividends	62,165	69,971
Private markets	38,408	45,988
Investment expenses	45,603	55,230
Investment expenses	(26,300)	(27,957)
Miscellaneous income	274	105
Net investment income, before securities lending	12,568	254,359
From securities lending activities:		
Securities lending income	1,539	1,011
Borrower rebate expenses	(852)	(424)
Securities lending management fees	(158)	(145)
Net income from securities lending activities	529	442
Net investment income	13,097	254,801
Total Additions	302,332	520,756
Deductions		
Benefits paid to plan members and beneficiaries	292,775	277,417
Refunds of member contributions	2,217	2,615
Administrative expenses	6,422	5,981
Other	130	107
Total Deductions	301,544	286,120
Change in Fiduciary Net Position	788	234,636
Fiduciary Net Position Restricted for Pension Benefits		
Beginning of Year	4,934,507	4,699,871
End of Year	\$ 4,935,295	\$ 4,934,507

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

Notes to the Basic Financial Statements: Note 1

NOTE 1 - DESCRIPTION OF THE RETIREMENT PLAN (The PLAN)

The following description of the Fresno County Employees' Retirement Association (FCERA) is provided for general information purposes only. FCERA is governed by the Board of Retirement (Board) under the 1937 County Employees Retirement Law (1937 Act) and the California Public Employees' Pension Reform Act (PEPRA) of 2013. Readers should refer to the 1937 Act and PEPRA for more complete information.

General

FCERA is a contributory defined benefit plan initially organized under the provisions of the 1937 Act on January 1, 1945. Effective January 1, 2013, PEPRA added requirements and benefit levels for new members joining the Plan after January 1, 2013, as well as modifying some provisions of the 1937 Act for existing members. FCERA provides benefits upon retirement, death, or disability of members. FCERA is a cost-sharing, multiple-employer plan that includes substantially all full-time employees and permanent part-time employees who work 50% or more for the County of Fresno (County), the Superior Court of California-County of Fresno, Clovis Veterans Memorial District, Fresno-Madera Area Agency on Aging, and Fresno Mosquito & Vector Control District. An employee becomes eligible for membership commencing with the pay period following the date of employment in an eligible permanent position.

Plan Membership

As of June 30, 2020

	2020
Active Members	
Vested	4,594
Non-Vested	3,279
Total Active Members	7,873
Retired Members	7,841
Terminated Members	4,014
Total Membership	19,728

Benefit Provisions

The Board, under the provisions of the 1937 Act, administers benefit provisions adopted by the Plan Sponsors. Benefits are based upon a combination of age, years of service, final average salary (the highest year, highest three consecutive years or average of the highest three one-year periods of employment), benefit tier (including membership classification) and the payment option selected by the member. Disability and death benefits are additionally based upon whether the disability was service connected or not, and whether the death occurred before or after retirement. Retirement benefit payments consist of regular retirement benefits and, depending on the date of retirement, may include cost of living benefits, supplemental benefits, supplemental annuity benefits, and vested health benefits. Benefits may also include

Notes to the Basic Financial Statements: Note 1 Continued

a supplemental cost of living and a non-vested health benefit if approved by the Board. General members enrolled in Tiers 1, 2, 3, or 4 may retire at age 50 with 10 years of service, at any age with 30 years of service, or at age 70 with any years of service. General members enrolled in Tier 5 may retire at age 52 with 5 years of service, or age 70 with any years of service. Safety members enrolled in Tiers 1, 2, or 4 may retire at age 50 with 10 years of service or at any age with 20 years of service. Safety members enrolled in Tier 5 may retire at age 50 with 5 years of service, or age 70 with any years of service.

At June 30, 2020, there were five tiers for general members (1, 2, 3, 4 & 5) and four tiers for safety members (1, 2, 4 & 5). General Tiers 1, 2, 3 and 4, and Safety Tiers 1, 2 and 4 are closed to new members unless they meet the requirements under California Government Code Section 7522 et al. Safety includes members in active law enforcement or certain other "Safety" classifications as designated by the Board.

Disability retirements may be granted as service connected with no minimum service credit required or non-service connected with five years of service credit required.

PEPRA limits the amount of compensation FCERA can use to calculate a retirement benefit. The 2020 compensation limits used to determine contribution amounts for Tier 5 members are \$126,291 for members covered by Social Security and \$151,549 for members not covered by Social Security and will be adjusted in future years for changes in the Consumer Price Index. Most FCERA members are covered by Social Security.

Notes to the Basic Financial Statements: Note 1 Continued

The tiers and their basic provisions are listed below:

<i>Tier Name</i>	<i>California Government Code Section</i>	<i>Effective Date</i>	<i>Basic Provisions</i>	<i>Vested Health Benefit</i>	<i>Final Average Salary Period</i>	<i>Plan Sponsors</i>
Pre-Ventura General	31676.12	Various	2.0% at 57; maximum 3% cost of living benefit	Yes	Highest 1 – year	All
General Tier 1	31676.14 and the Settlement Agreement	January 1, 2001	2.5% at 55; maximum 3% cost of living benefit	Yes	Highest 1 – year	All
General Tier 2	31676.16	September 12, 2005	2.0% at 55; maximum 3% cost of living benefit	Yes	Highest 1 – year	County and FMAAAA ¹
General Tier 3	31676.15	December 17, 2007	2.0% at 55; maximum 3% cost of living benefit	Yes	3 Highest Years	County
General Tier 4	31676.1	June 11, 2012	2.0% at 61; no cost of living benefit	No	3 Highest Years	County
General Tier 5	7522.20	January 1, 2013	2.5% at 67; no cost of living benefit	No	Highest 3 Consecutive Years	All
Pre-Ventura Safety	31664	Various	2.0% at 50; maximum 3% cost of living benefit	Yes	Highest 1 – year	County and NCFPD ²
Safety Tier 1	31664 and the Settlement Agreement	January 1, 2001	2.5% at 50; maximum 3% cost of living benefit	Yes	Highest 1 - year	County and NCFPD ²
Safety Tier 2	31664.2	September 12, 2005	3.0% at 55; maximum 3% cost of living benefit	Yes	Highest 1 - year	County
Safety Tier 4	31664	June 11, 2012	2.0% at 50; no cost of living benefit	Yes	3 Highest Years	County
Safety Tier 5	7522.25(d)	January 1, 2013	2.7% at 57; no cost of living benefit	No	Highest 3 Consecutive Years	County

¹ FMAAAA – Fresno-Madera Area Agency on Aging

² NCFPD – North Central Fire Protection District. NCFPD withdrew active membership from FCERA as of August 31, 2007.

Notes to the Basic Financial Statements: Note 2

Administration

The management of FCERA is vested in the Board, which is composed of the following nine members and an alternate member:

1. County Treasurer,
2. Two active members of FCERA elected by the general members,
3. One active member of FCERA elected by the safety members,
4. One retired member of FCERA elected by the retired members,
5. Four members appointed by the County Board of Supervisors. These members shall be qualified electors of the County who are not connected with County government in any capacity, except one may be a County Supervisor, and
6. One alternate member of FCERA elected by the retired members.

As of the June 30, 2015, Actuarial Valuation adopted by the Board, administrative expenses are financed through a 1.10% load of payroll. The employer's share is 0.94% and employee's share is 0.16% of payroll, allocated to the employer and member rates, respectively.

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Reporting Entity

FCERA is the public employee retirement system established by the County on January 1, 1945, and administered independently by the Board to provide retirement, disability, death, and survivor benefits for its employees under the 1937 Act. FCERA's actuarially determined financial data is included in the County's Comprehensive Annual Financial Report (CAFR) in the Notes to the Basic Financial Statements and the Required Supplementary Information Section.

Basis of Accounting

FCERA's financial statements are prepared using the accrual basis of accounting. Investment income is recognized when it is earned and expenses are recognized in the period in which they are incurred. Employee and employer contributions are recognized as revenues when due, pursuant to formal commitments, as well as statutory or contractual requirements. Benefits and refunds of prior contributions are recognized when due and payable under the provisions of the Plan.

Notes to the Basic Financial Statements: Note 2 Continued

Deposits and Investments

Cash and cash equivalents with fiscal agent include deposits in the County Treasurer's commingled cash and investment pool and investments held by the custodian bank. Investments with the custodian bank are comprised of foreign currencies, cash held in a short-term investment fund and other short-term, highly liquid investments. Short-term investments considered cash equivalents are recorded at cost, which approximates fair value. The County Treasurer's commingled cash and investment pool operates in accordance with appropriate state laws and regulations and is governed by an investment policy formally adopted by the County. (Please refer to the CAFR prepared by the County for additional information on the County Treasurer's commingled cash and investment pool.)

Plan investments are reported at fair value. The fair values of equity and fixed income securities are derived from quoted market prices. The fair values of private market investments are estimated from fair values provided by the real estate investment funds, futures investment managers, and alternative investment managers. All investment purchases and sales are recorded on the trade date. Additional information regarding the Plan's investments can be found Note 3 and in the Investment Section of this CAFR.

Asset Allocation Policy

The current Board adopted policy targets that were established in September 2018, which resulted from a comprehensive asset/liability study conducted in multiple phases beginning in February 2018 through June of 2018. The new policy reverses the course established in 2013 of de-risking the plan. The Board voted to reallocate a higher proportion of investments into equities exposure and reduce the larger fixed income allocation that FCERA has maintained since 2013. The new asset allocation policy is incorporated into FCERA's updated Investment Policy Statement, which helps guide the manner in which FCERA invests.

Investment Concentrations

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

Implementation of New Accounting Standards

The following standards were issued recently by the Governmental Accounting Standards Board (GASB) for implementation effective for this fiscal year: Statement No. 83, *Certain Asset Retirement Obligations* which is not applicable to FCERA. Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements* which is not applicable to FCERA.

Notes to the Basic Financial Statements: Note 3

Capital Assets

Capital assets are valued at historical cost less accumulated depreciation. Depreciation is calculated using the straight-line method over the estimated useful lives of three years for computer equipment, five years for office equipment, 10 years for furniture, 15 years for software (accounting general ledger and pensions administration systems), and 30 years for buildings. Depreciation expense is reported as part of administrative expense.

Income Taxes

The Internal Revenue Service (IRS) has ruled that plans such as FCERA qualify under Section 401(a) of the Internal Revenue Code (IRC), which prevents FCERA from being subjected to taxation under present income tax laws. In September 2016, the FCERA Plan was again determined by the IRS to be a tax qualified plan. In accordance with this determination, no provisions for income taxes have been made in the accompanying basic financial statements, as FCERA is exempt from federal and state income taxes under provisions of the IRC, Section 401(a), and the California Revenue and Taxation Code, Section 23701, respectively.

Use of Estimates

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

Administrative Expenses

FCERA's Board annually approves the budget for administrative expenses. Government Code Section 31580.2 provides for the adoption by the Board of Retirement an annual budget covering the entire expense of administration. This expense of administration is a direct charge against the earnings of the Plan and shall not exceed the greater of twenty-one hundredths of one percent (.21%) of the accrued actuarial liability of the Plan or two million dollars (\$2,000,000), as adjusted annually by the amount of the annual cost of living adjustment. Government Code Section 31580.2(b) provides that expenditures for software, hardware and computer technology maintenance and equipment are not considered a cost of administration and are therefore excludable from the administrative expenses. With the exclusion of the information technology costs, FCERA's administrative expenses totaled 0.10% of the total accrued actuarial liability of the Plan.

Related Party Transactions

FCERA terminated their lease of two side-by-side office locations from FCERA Realty Group, a limited liability company, in October 2019 when both Administrative properties were transferred back to FCERA as Capital Assets. Details related to the building transfer can be found in Note 5.

NOTE 3 - DEPOSITS AND INVESTMENTS

Except as otherwise expressly restricted by the California Constitution and by law, the Board may, at its discretion, invest, or delegate FCERA the authority to invest its assets through the purchase, holding, or sale of any form or type of instrument, or financial transaction when prudent in the informed opinion of the Board. In addition, the Board has established an investment policy that places limits on the compositional mix of cash, fixed income and equity securities, alternative investments, and real estate investments. FCERA currently employs external investment managers to manage its assets subject to the guidelines of the investment policy. GASB Statements Nos. 40 and 53 detail the disclosure requirements associated with FCERA's deposits, investments, and derivatives. The statements identify the following risks: investment risk, custodial credit risk, concentration of credit risk, interest rate risk, and foreign currency risk. Rather than creating an across the board policy addressing limitations on credit ratings of certain debt securities, FCERA has chosen to manage the investment risks detailed in GASB Statements Nos. 40 and 53 by requiring each investment manager responsible for a separately held portfolio to follow specific agreed upon investment guidelines that meet the requirements of FCERA for the individual investment mandate. FCERA's investment guidelines do not govern control over commingled portfolios and therefore only apply to separately held portfolios.

Custodial credit risk - deposits. This type of risk associated with deposits is the risk that, in the event of a failure in a depository financial institution, a government will not be able to recover its deposits or recover collateral securities that are in the possession of an outside party. FCERA does not have a policy for managing custodial credit risk. As of June 30, 2020, all domestic deposits were insured, registered, and held by the custodian bank in FCERA's name. FCERA held foreign currencies deposits at June 30, 2020, with a United States Dollar value of \$2,612,000, all of which is subject to custodial credit risk since the deposits are unsecured and uncollateralized.

Custodial credit risk - investments. For an investment, this is the risk that, in the event of the failure of the counterparty, the government will not be able to recover the value of its investment or collateral securities that are in the possession of an outside party. FCERA's investments are not subject to custodial credit risk because investments are insured and registered in FCERA's name. FCERA's investment policy does not limit the amount of securities that can be held by counterparties.

Notes to the Basic Financial Statements: Note 3 Continued

Credit risk. Credit risk is the risk that an issuer or other counterparty to a debt instrument will not fulfill its obligations. This risk is measured by the assignment of ratings by nationally recognized statistical rating organizations. FCERA has adopted policies specific to each investment manager to manage credit risk. In general, fixed income securities should be well diversified to avoid undue exposure to any single economic sector, industry, or individual security. The County's external investment pool is unrated for credit risk purposes.

The credit ratings disclosed below were obtained from Moody's rating agency as of June 30, 2020.

Credit Quality Ratings of Investments in Fixed Income Securities

As of June 30, 2020

(Dollars in Thousands)

Moody's Credit Rating	2020	
	Total Fixed Income	FCERA's Fixed Income Securities
Northern Institutional Liquid Assets Portfolio / Tier 1 Quality Fixed Income Securities		\$ 92,282
Aaa	11.8%	171,456
Aa	1.7%	24,287
A	9.2%	132,641
Baa	15.7%	226,441
Ba	10.5%	152,467
B	5.1%	73,674
Caa	1.7%	24,112
Ca	0.1%	1,591
C	0.0%	112
Agency/Exempt	1.2%	17,641
FNMA/FHLMC	6.7%	96,387
NR	36.3%	526,009
Total Fixed Income Securities	100.0%	1,446,818
Total Securities Lending Pool and Fixed Income Securities		\$ 1,539,100

NR = Securities that are not rated by Moody's, an independent ratings agency.
 Agency/Exempt = U.S. Treasuries and GNMA Securities that are exempt from rating disclosure and are explicitly guaranteed by the U.S. Government.
 FNMA/FHLMC are Government Sponsored Enterprises (GSE's) and only hold the implicit guarantee of the backing of the U.S. Government.

Interest rate risk. Interest rate risk is the risk that changes in the interest rate will adversely affect the fair value of an investment. FCERA has not adopted a policy to manage interest rate risk.

Notes to the Basic Financial Statements: Note 3

FCERA selected the segmented time distribution method for the following investments subject to interest rate risk at June 30, 2020.

Interest Rate Risk

As of June 30, 2020

(Dollars in Thousands)

Investment Type	Remaining Maturity in Months at June 30, 2020				
	Less than 12 months	13 to 60 months	61 to 120 months	More than 120 months	
Northern Institutional Liquid Assets Portfolio	\$ 92,282	\$ 92,282	\$ -	\$ -	\$ -
Subtotal	92,282	92,282	-	-	-
U.S. Government and agencies					
U.S. Treasury notes	173,498	35,305	73,843	26,503	37,847
Federal agency securities	101,534	34,169	331	2,681	64,353
Subtotal	275,032	69,474	74,174	29,184	102,200
Derivatives	33,257	29,229	(25)	2,028	2,025
Domestic fixed income	707,875	365,738	89,828	172,261	80,048
Mortgages	10,505	-	731	3,940	5,834
Foreign fixed income	420,149	20,461	121,536	149,273	128,879
Total Securities Lending Pool and Fixed Income Securities	\$ 1,539,100	\$ 577,184	\$ 286,244	\$ 356,686	\$ 318,986

At June 30, 2020, FCERA had \$146,732,000 invested in the County external investment pool, which has a dollar weighted average maturity of 1.91 years. More information regarding the County of Fresno's external investment pool can be located at:

<https://www.co.fresno.ca.us/departments/auditor-controller-treasurer-tax-collector/publications/> under the quarterly investment reports menu.

Concentration of credit risk. This is the risk of loss attributed to the concentration of FCERA's investment in a single issuer. FCERA's investment policy does not permit any one manager to invest more than five % of the fair value of its portion of the portfolio in any one issue, with the exception of investments issued by the U.S. Government and its agencies. As of June 30, 2020, no investments in any one issuer are greater than 5% of total investments. Investment managers authorized to invest in below investment grade securities are limited to holding no more than 20% of their portfolio fair value in such securities.

Foreign currency risk. This is the risk that FCERA will not be able to recover the value of its investment in local currency when the exchange value of the currency lowers. FCERA has not adopted a policy to manage the foreign currency risk. FCERA's investment in foreign currency at June 30, 2020 is as follows:

Notes to the Basic Financial Statements: Note 3

Foreign Currency Risk

As of June 30, 2020

(Dollars in Thousands)

Currency	Fair Value 2020
Brazil Real	\$ 146
British Pound	140
Canadian Dollar	183
Chilean Peso	245
Columbian Peso	169
Euro	236
Japanese Yen	648
Mexican Peso	265
Peruvian Nuevo Sol	214
Other Foreign Currencies	366
Total Foreign Currency	\$ 2,612

Foreign currency table values represent cash deposits expressed in U.S. dollars.

Derivatives. The investment derivatives schedule below reports the fair value and notional value of the derivatives held by FCERA at June 30, 2020. For reporting purposes, FCERA's derivatives are classified as investment derivatives. 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*. FCERA, through its external investment managers, enters into forward foreign currency contracts as well as equity rights to hedge against changes in the fair values of foreign bonds and equity securities, primarily denominated in European and Asian currencies. It is possible that, due to foreign exchange fluctuations, FCERA may be exposed to a potential loss.

Investment Derivatives

As of June 30, 2020

(Dollars in Thousands)

Derivative Type	2020	
	Notional Value	Fair Value
Fixed Income Futures	\$ 129,520	\$ -
Equity Futures	94,501	-
Foreign Exchange Futures	957	-
Credit Default Swaps	-	1,058
Equity Contract Swaps	-	23,051
Forward Currency Contracts	-	1,397
Forward Exchange Swaps	-	531
Interest Rate Swaps	-	4,272
Options	-	(393)
Rights	-	3,341
Total	\$ 224,978	\$ 33,257

Notes to the Basic Financial Statements: Note 3 Continued

FCERA could be exposed to risk if the counterparties to the contracts are unable to meet the terms of the contracts. FCERA anticipates that counterparties will be able to satisfy their obligations under the contracts. FCERA's investment managers seek to control this risk through counterparty credit evaluations and approvals, counterparty credit limits and exposure monitoring procedures, including requirements for cash collateral at certain defined levels. At June 30, 2020, FCERA held \$4,791,000 at its custodian, Northern Trust, to offset potential risks it may encounter through counterparty transactions.

FCERA's comparative counterparty exposure is detailed in the following schedule:

Counterparty Credit Risk Analysis

As of June 30, 2020

(Dollars in Thousands)

	Aa		A		Exchange Traded		Not Rated	Total
Options	\$	-	\$	-	\$	-	\$ (393)	\$ (393)
Rights/Warrants		-		-		-	3,341	3,341
Swaps		-		-		-	28,912	28,912
Forwards		-		-		-	1,397	1,397
	\$	-	\$	-	\$	-	\$ 33,257	\$ 33,257

At June 30, 2020, FCERA was exposed to Foreign Currency Risk related to its investments in equity rights and forward contracts denominated in foreign currencies. The table on the following page displays FCERA's position in each of the foreign currency contracts.

Remainder of page left intentionally blank.

Notes to the Basic Financial Statements: Note 3

Foreign Currency Risks at Fair Value

As of June 30, 2020

(Dollars in Thousands)

Currency Name	Equities	Forward Currency Contracts		Total Exposure
		Net Receivables	Net Payables	
Australian dollar	\$ -	\$ (13,799)	\$ -	\$ (13,799)
Brazilian real	-	(31,868)	35,128	3,260
British pound sterling	-	(14,203)	26,521	12,318
Canadian dollar	-	(6,173)	5,216	(957)
Chilean peso	-	(1,162)	15,112	13,950
Chinese yuan renminbi	-	-	2,535	2,535
Colombian peso	-	(4,001)	1,329	(2,672)
Czech koruna	-	-	12,703	12,703
Egyptian pound	-	(537)	537	-
Euro	59	(29,703)	33,097	3,453
Hong Kong renminbi	-	(636)	5,180	4,544
Hong Kong dollar	-	(583)	87	(496)
Hungarian forint	-	(7,049)	10,898	3,849
Indonesian rupiah	-	(15,747)	2,606	(13,141)
Japanese yen	-	(27,351)	21,247	(6,104)
Malaysian ringgit	-	(258)	3,607	3,349
Mexican peso	-	(10,060)	22,795	12,735
New Israeli shekel	-	(608)	-	(608)
New Romanian leu	-	(358)	1,671	1,313
New Taiwan dollar	-	(5,861)	1,592	(4,269)
New Zealand dollar	-	(10,339)	12,650	2,311
Nigerian naira	-	(1,284)	1,320	36
Norwegian krone	-	(14,567)	14,567	-
Peruvian nuevo sol	-	(12,200)	2,881	(9,319)
Philippine peso	-	(237)	-	(237)
Polish zloty	-	(1,035)	16,808	15,773
Russian ruble	-	(3,737)	3,091	(646)
Singapore dollar	-	-	3,853	3,853
South African rand	-	(16,748)	3,921	(12,827)
South Korean won	-	(5,026)	22,717	17,691
Thai baht	-	(1,515)	10,909	9,394
Turkish lira	-	(1,372)	3,347	1,975
Uruguayan peso	-	-	442	442
Total	\$ 59	\$ (238,017)	\$ 298,367	\$ 60,409

Notes to the Basic Financial Statements: Note 3

The derivative securities included as equities above consist of rights. Foreign currency forward contracts are commitments to purchase or sell a stated amount of foreign currency at a specific future date.

Interest rate risk applies to derivatives such as Fixed Income Options, Credit Default Swaps, Interest Rate Swaps, Forward Foreign Currency and Rights. At June 30, 2020, FCERA was exposed to the following interest rate risk on its investments in these securities. The table below displays the maturity periods of these derivative investments.

Interest Rate Risk Analysis

As of June 30, 2020

(Dollars in Thousands)

Investment Types	Fair Value	Investment Maturities (in months)				Total
		Less than 12	13 to 60	61 to 120	More than 120	
Credit Default Swaps	\$ 1,058	\$ (15)	\$ 1,073	\$ -	\$ -	\$ 1,058
Equity Contract Swaps	23,051	23,051	-	-	-	\$ 23,051
Foreign Exchange Swaps	531	302	174	55	-	531
Forward Currency Contracts	1,397	1,397	-	-	-	1,397
Interest Rate Swaps	4,272	1,585	(1,274)	1,973	1,988	4,272
Options	(393)	(393)	-	-	-	(393)
Rights	3,341	3,302	2	-	37	3,341
Total	\$ 33,257	\$ 29,229	\$ (25)	\$ 2,028	\$ 2,025	\$ 33,257

Securities Lending. The Board authorized FCERA, through its custodian bank, to enter into securities lending transactions, whereby securities owned by FCERA are loaned on a short-term basis to various banks and brokers. Securities on loan include domestic and international stocks, and U.S. government agency and domestic bonds. All securities on loan must be collateralized at 102% of the fair value of the loaned securities, except for non-United States based equities which are initially collateralized at 105%. Collateral may take the form of cash, commercial paper, certificates of deposit, bankers' acceptances, repurchase and reverse repurchase agreements, obligations issued or guaranteed as to interest and principal by the United States Government (or agencies or instrumentalities thereof), bank time deposits, variable rate demand notes, money market mutual fund and any common trust fund maintained by a bank, other financial institution, any commingled, or pooled trust.

The lending agreement places no restriction on the amount of loans that can be made. FCERA's lending agent is authorized to invest and reinvest cash collateral, but it is not expressly permitted to pledge or sell securities collateral without borrower default. FCERA's agent invests cash collateral in individual securities and the securities are held by the trustee in FCERA's name. The maturities of the investments made with the cash collateral generally match the maturities of their securities on loan.

Notes to the Basic Financial Statements: Note 3

Securities on Loan - At fiscal year-end, FCERA had no credit risk exposure to borrowers because the collateral received exceeded the amount owed to borrowers. As of June 30, 2020, there were no violations of the securities lending provisions and no losses resulted within the securities lending program due to borrower default.

Reinvestment of Collateral - FCERA is subject to credit risk through the reinvestment of collateral cash which FCERA received at the time securities were placed on loan. The risk can include the devaluation of underlying securities where the collateral has been reinvested. FCERA invests its collateral in Northern Trust's cash collateral pool called the Northern Institutional Liquid Assets Portfolio (NILAP). The NILAP is considered a Tier 1 quality fund, investing in the highest credit quality securities. The goal of the NILAP is to maintain a \$1.00 net asset value per share of the fund, preserving reinvested collateral while providing a stable source of income. The collateral reported in these Financial Statements excludes non-cash collateral which amounts to \$82,036,328 at June 30, 2020. FCERA does not have the ability to sell non-cash collateral unless the borrower of the security defaults on the loan agreement.

FCERA is unable to quantify the dollar devaluation that would have existed if collateral had been called upon. Income from these transactions is reported on the Statement of Changes in Fiduciary Net Position. Securities on loan are reported at fair value on the Statement of Fiduciary Net Position. The carrying values of the cash collateral securities lending investment pool as of June 30, 2020 was \$92,281,926. The fair values of loaned securities are listed below:

Fair Values of Loaned Securities

As of June 30, 2020

(Dollars in Thousands)

	2020
Domestic equity	\$ 23,988
International equity	5,814
Total equity on loan	29,802
U.S. Government and agencies	20,960
Domestic bonds	38,376
Foreign Bonds	1,195
Total bonds on loan	60,531
Total equities and bonds on loan	\$ 90,333

Highly Sensitive Investments. In its actively managed fixed income portfolio, FCERA utilizes investments that are highly sensitive to interest rate changes. Highly sensitive investments include mortgage-backed securities, asset-backed securities and collateralized mortgage obligations. FCERA's investment portfolio contains certain variable rate notes and collateralized mortgage obligations. At June 30, 2020, FCERA had approximately \$21,874,000 in these investments.

Notes to the Basic Financial Statements: Note 3

Investment Type

As of June 30, 2020

(Dollars in Thousands)

	2020
Asset - Backed / Variable Rate Notes	\$ 11,549
Collateralized Mortgage Obligations	9,794
Forward Foreign Currency	531
Total	\$ 21,874

Fair Value Measurement

FCERA follows GASB Statement No. 72, *Fair Value Measurement and Application*. The statement provides guidance on fair value measurement under accounting principles generally accepted in the United States of America (GAAP), FCERA discloses the fair value of its investments in a hierarchy that prioritizes the inputs to valuation techniques used to measure the fair value. The objective of fair value measurement is to determine the price that would be received to sell an asset or paid to transfer a liability in a transaction between market participants at the measurement date (an exit price). The hierarchy gives the highest priority to quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy are described below:

- Level 1 – reflects prices quoted in active markets for identical assets;
- Level 2 – reflects prices based on other similar observable inputs; and
- Level 3 – reflects prices based upon unobservable inputs.

FCERA classifies its investments in Level 1 based on direct analysis provided by a primary external pricing service and are quoted in active markets. Investments in Level 1 consist of public equity assets.

Investments classified as Level 2 are based on inputs other than quoted prices attributed to Level 1, but are still observable. Level 2 assets consist of fixed income securities as well as commingled investment funds that may report using the Net Asset Value (NAV). Fixed income investments are valued using a bid evaluation or matrix pricing technique. For commingled investments that are capable of redemption at the NAV per share price at the measurement date, the fair value is classified in Level 2.

Notes to the Basic Financial Statements: Note 3

Where the inputs from market activity are unobservable, the Level 3 classification is used. This classification requires significant judgement and estimation to determine fair value. Due to the difficulty of determining accurate estimates, the values of these investments may differ significantly from values that could have been determined if a market existed at the measurement date.

Investments measured at the Net Asset Value consist of certain commingled funds, real estate funds, private equity, private credit and hedge funds. The structure of real estate, private equity, private credit and hedge funds typically exist as limited partnerships. There are no readily available markets to determine accurate fair value for these limited partnerships as they may contain investments in non-liquid assets, real estate or other assets. The valuations for these investments may occur at various times throughout the investment cycle in accordance with guidelines established through the limited partnership agreement.

FAIR VALUE MEASUREMENT

June 30, 2020

(Dollars in Thousands)

Investments by Fair Value Level	June 30, 2020	Quoted Prices in Active Markets	Other Observable Inputs	Unobservable Inputs
		(Level 1)	(Level 2)	(Level 3)
Domestic and International Fixed Income	\$ 1,208,493	\$ -	\$ 1,198,561	\$ 9,932
Domestic and International Equities	583,506	583,506	-	-
Domestic and International Commingled Funds	1,701,968	1,352,855	349,113	-
Securities Lending Collateral	92,282	-	92,282	-
Total Investments by Fair Value Level	\$ 3,586,249	\$ 1,936,361	\$ 1,639,956	\$ 9,932

Investment Derivatives ¹

Derivative Type				
Credit Default Swaps	\$ 1,058	\$ -	\$ 1,058	\$ -
Equity Contract Swaps	23,051	-	23,051	-
Interest Rate Swaps	4,272	-	4,272	-
Forward Currency Contracts	1,397	-	1,397	-
Forward Exchange Swaps	531	-	531	-
Options	(393)	-	(393)	-
Rights	3,341	3,341		-
Total Derivatives	\$ 33,257	\$ 3,341	\$ 29,916	\$ -

Notes to the Basic Financial Statements: Note 3 Continued, Note 4

INVESTMENTS MEASURED AT NET ASSET VALUE

June 30, 2020

(Dollars in Thousands)

Investments Measured at NAV	June 30, 2020	Unfunded Commitments	Frequency (if eligible)	Redemption Notice Period
Real Estate (1)	\$ 241,872	\$ 31,369	Core Fund - Quarterly, Closed-End Funds Not Eligible	Core Fund - 45 days
Private Equity (1)	433,010	159,187	Not Eligible	Not applicable
Private Credit (1)	378,003	203,531	Not Eligible	Not applicable
Hedge Funds: (2)	96,762	-	Quarterly	60 to 120 days
Total Investments Measured at NAV	\$ 1,149,647	\$ 394,087		
TOTAL INVESTMENTS and INVESTED SECURITIES LENDING COLLATERAL	4,769,153			

(1) Real Estate, Private Equity and Private Credit – FCERA’s allocation in these investments totals 43 limited partnerships. The limited partnerships invest primarily in buyout funds, venture capital, distressed debt, mezzanine debt, and special situations. The measurement of the fair values of these investments has been determined using NAV typically one quarter in arrears with updated cash flows. These funds are not eligible for redemption, funding takes place over a time horizon of 1 to 5 years with the expectation of limited partnerships to liquidate within 7 to 12 years.

(2) Hedge Funds – As of June 30, 2020, FCERA is invested in hedge funds through Grosvenor Better Future Funds, as a fund of one. Grosvenor relies on fair value determination from managers handling its underlying investments.

NOTE 4 - INVESTMENT TRADES RECEIVABLE AND PAYABLE

Investment trades receivable and payable include forward currency contracts, and sales and purchases of investments. Forward currency contracts are used to control currency exposure and facilitate the settlement of international security purchase and sale transactions. At June 30, 2020, forward foreign currency contracts receivable and payable totaled \$238,017,000 and \$298,367,000, respectively.

Notes to the Basic Financial Statements: Note 5

NOTE 5 – CAPITAL ASSETS

The following is a summary of changes in capital asset activity as of June 30, 2020:

Capital Assets

As of June 30, 2020

(Dollars in Thousands)

	Balance July 1, 2019	Additions	Dispositions/ Reclassifications	Balance June 30, 2020
Capital assets, non depreciable:				
Land	\$ -	\$ 1,160	\$ -	\$ 1,160
Development in Progress	-	5	-	5
Construction in Progress	24	-	(24)	-
Total capital assets, non depreciable	\$ 24	\$ 1,165	\$ (24)	\$ 1,165
Capital assets, depreciable:				
Computer hardware/software	\$ 9,813	\$ -	\$ -	\$ 9,813
Furniture and fixtures	591	-	-	591
Equipment	192	30	-	222
Building	3,488	3,416	-	6,904
Total capital assets, depreciable	\$ 14,084	\$ 3,446	\$ -	\$ 17,530
Less accumulated depreciation for:				
Computer hardware/software	\$ (2,845)	\$ (669)	\$ -	\$ (3,514)
Furniture and fixtures	(103)	(59)	-	(162)
Equipment	(69)	(41)	-	(110)
Building	(195)	(203)	-	(398)
Total accumulated depreciation	\$ (3,212)	\$ (972)	\$ -	\$ (4,184)
Total capital assets, depreciated, net	10,872	2,474	-	13,346
Total capital assets, net	\$ 10,896	\$ 3,639	\$ (24)	\$ 14,511
Depreciation charged for the current year and included in administrative expenses totaled:		\$ 972		

Notes to the Basic Financial Statements: Note 6

NOTE 6 – CONTRIBUTIONS AND RESERVES

Contributions

Contributions are made by the members and the employers at rates recommended by FCERA's independent actuary and approved by the Board and the County Board of Supervisors. Employee contribution rates vary according to age, classification (safety or general), and benefit tier. Employee contribution rates are designed to provide funding for approximately one-fourth of the regular retirement benefits and one-half of all cost of living benefits for members enrolled in Tiers 1 through 4 and one half of the normal cost of the retirement benefit for members enrolled in Tier 5. Members are required to contribute between 3.79% and 12.58% of their annual covered salary. Employee contribution rates are established and may be amended pursuant to Articles 6 and 6.8 of the 1937 Act.

Interest is credited to member contributions every six months based on the prior six months ending balance. Members are not permitted to borrow against their contributions. Upon termination of employment, members may withdraw their contributions by requesting a refund of their accumulated contributions and interest. Non-vested members may leave their contributions on deposit with FCERA without establishing reciprocity. These members receive interest on their contributions and may withdraw their contributions and interest at any time.

Employer contribution rates are determined pursuant to Section 31453 of the 1937 Act and are designed to provide funding for the remaining regular retirement and cost of living benefits, as well as all regular disability and survivors' benefits.

Contribution rates are actuarially determined using the entry age normal method and consist of the normal cost (the estimated amount necessary to finance benefits earned by employees during the current year) and, beginning in 1980, the unfunded actuarial accrued liability, which was amortized over a 30-year period. Effective with the valuation completed for June 30, 2002, the amortization period was modified to allow a 30-year amortization period for changes in the unfunded actuarial accrued liability that result from Plan amendments and a 15-year amortization period for all other changes in the unfunded actuarial accrued liability. The Schedule of Employer Contributions, which includes 10-year historical information, is presented in the Required Supplementary Information section on page 54.

Benefits attributable to employers' contributions do not become vested until completion of five years of credited service. A member may receive a regular retirement allowance after meeting the minimum requirements for eligibility as defined in Note 1 of these Financial Statements.

On September 12, 2012, PEPR was signed into law by the Governor of California, Jerry Brown, establishing a new tier for General and Safety employees entering FCERA membership on or after January 1, 2013. The benefit formula for General members is 2.5% at age 67 and the

Notes to the Basic Financial Statements: Note 6 continued

Safety formula is 2.5% at age 57. Benefits under the new PEPRA tiers are based on a consecutive three-year final average compensation period.

Reserved and Designated Accounts of Net Position Restricted for Pension Benefits

Fiduciary Net Position Restricted for Pension Benefits is segregated into members' and employers' accumulated contributions reserves established by the Board and undistributed earnings. The Board has established reserves for various benefit payments pursuant to the 1937 Act, and it has designated an account for market stabilization. Effective as of fiscal year end June 30, 2009, the Contra Tracking Account was added to represent the amount of interest credited to reserve accounts that had not been paid for out of current earnings.

The amounts and changes in reserves and designations for the year ended June 30, 2020 consist of the following:

Reserve Balances *

As of June 30, 2020

(Dollars in Thousands)

	Balance July 1, 2019	Increase (Decrease) In Fiduciary Net Position	Net Transfers	Balance June 30, 2020
Reserves:				
Members' accumulated contributions	\$ 460,516	\$ 39,544	\$ (95,090)	\$ 404,970
Current service reserve	1,599,665	179,276	(17,439)	1,761,502
Annuity pension reserve	225,424	(32,429)	61,546	254,541
Current service pension reserve	1,549,490	(140,361)	210,642	1,619,771
Settlement annuity pension reserve	763,434	(41,210)	82,451	804,675
Settlement benefit reserve	115,073	(5,060)	8,106	118,119
Cost of living adjustment reserve	1,473,755	880	189,090	1,663,725
Survivors' death benefit reserve	-	(1,415)	1,415	-
Retiree health benefit reserve (VS)	27,905	(4,981)	1,900	24,824
Contingency reserve	-	-	-	-
Designated for market stabilization	(36,718)	-	(253,997)	(290,715)
Undistributed earnings	-	6,544	(6,544)	-
Contra Tracking Account	(1,244,037)	-	(182,080)	(1,426,117)
Net Position Restricted for Pension Benefits	\$ 4,934,507	\$ 788	\$ -	\$ 4,935,295

*Note individual reserve balance may not tie across and down due to rounding.

Notes to the Basic Financial Statements: Note 6 continued

Members' accumulated contributions include all member contributions net of refunds paid to members. At retirement, member balances are transferred to the *annuity* and *settlement annuity pension reserves* and the *cost of living adjustment reserve*. Employers' contributions are paid into *current service reserve*, *settlement annuity reserve*, and *cost of living reserve*. The employer current service and settlement annuity contributions are combined in the *current service reserve*, although tracked separately within the *current service reserve* balance. When an employee retires, the employer portion of their accumulated contributions for current service and settlement annuity are transferred from the *current service reserve* into the *current service pension reserve* and the *settlement annuity pension reserve*. *Undistributed earnings* are credited with all investment income and charged with investment and other fees. Transfers from undistributed earnings to other reserves are made twice a year. At June 30, 2020, staff aligned the Member's accumulated contributions on the reserve schedule with the balances in the Plan's pension administration system. This alignment is evidenced in the table noting net transfers displayed on the previous page.

Prior to July 1, 2007, the Board authorized an annual rate equal to the actuarial rate of return be apportioned as the interest. Effective July 1, 2007, the Board adopted a new interest crediting policy which implemented the following objectives: 1) maintain consistency between the reserving structure accounts and the actuarial funding policies of FCERA, 2) assure that the reserve values track the market value of assets over the long-term and 3) to the extent possible, maintain reasonable stability in both the interest crediting and contribution rates by avoiding charging short-term losses to reserves. This policy resulted in interest apportionments of \$217,534,175 for the December 31, 2019 interest-crediting period, and \$225,087,320 for the June 30, 2020, interest-crediting period. The semi-annual rates of interest for the two periods were 3.5% and 3.5%, respectively. Any additional transfers out of undistributed earnings are made in accordance with the authorization of the Board.

The *survivors' death benefit reserve* is credited with balances transferred from *members' accumulated contributions* and the employer *current service reserve*, in those instances where the survivor of an active deceased member is entitled to continuation benefits. The *current service reserve* consists of current service and settlement annuity contributions (which are tracked separately within the *current service reserve*). Lump sum survivor benefits are paid directly from *members' accumulated contributions* and the *current service reserve*. Pension and disability benefits are paid from the *annuity pension reserve*, *current service* and *settlement annuity pension reserves* and *cost of living adjustment reserve*.

Both the *retiree health benefit* and the *supplemental cost of living reserves* are non-valuation reserves approved annually by the Board. Non-valuation reserves are under the control of the Board and are not available to fund vested benefits of the Plan. The *retiree health benefit reserve* was initiated in 1987 to establish funds for payment of supplemental benefits which would provide retirees additional monies with the expectation (but not the requirement) that the funds be used to offset the cost of health insurance premiums. Effective with the actuarial valuation completed for the year ended June 30, 2003, the retiree health benefit reserve was apportioned into two reserves, the *retiree health benefit reserve* and the *retiree health benefit*

Notes to the Basic Financial Statements: Note 6 continued

reserve (VS) to more clearly account for the liability associated with additional health benefits granted as part of the Settlement Agreement negotiated between the County and certified employee organizations in December 2000. FCERA ceased issuing benefit payments from the non-vested retiree health benefit reserve in November 2014.

The *supplemental cost of living reserve* was established in 1990 to provide additional benefits for eligible members. The benefit was adopted annually under Government Code Section 31874.3 to provide purchasing power protection to those retirees whose accumulated excess cost of living credits exceeds 25%; therefore, the affected members changed each year. The *supplemental cost of living reserve* balance reflects Board approved transfers from *undistributed earnings*. Analysis of the expenses of this reserve indicated that sufficient funding was unavailable to continue the benefit past August 2005. Thus, the Board authorized transfers sufficient to provide funds to continue the benefit at levels in existence at June 30, 2006. FCERA staff, in conjunction with the Actuary, monitors the declining balance of the supplemental cost of living reserve. The Board voted a date certain to cease payments of the supplemental cost of living reserve on August 1, 2016.

The *supplemental benefit reserve* was established to account for the benefit increase given to retirees or the beneficiaries of retirees who retired prior to January 1, 2001, as part of the Settlement Agreement approved in December 2000.

The *supplemental annuity benefit* reserve was established to account for the benefit increase given to members who retired on or after January 1, 2001, as part of the Settlement Agreement approved in December 2000.

The designation for market stabilization serves to spread unanticipated market gains and losses over a five-year period and represents a portion of the variance between net investment earnings and actuarial expectations based on the assumed rate of returns.

FCERA maintains a Statutory Contingency Reserve based on 1% of the total valuation account reserve balances. As part of the Interest Credit policy modified by the Board in September 2008, the Board established an additional Board Contingency Reserve of up to 2% of the total Fiduciary Net Position. Funding of this additional reserve is subject to Board approval.

The Contra Tracking Account represents interest that has been credited to the reserve accounts that was not available to be paid out of the current or excess earnings. A balance in this account is the result of the application of the Board's full interest crediting policy and will be replenished in subsequent periods when there are sufficient earnings.

Notes to the Basic Financial Statements: Note 7

NOTE 7 - **ACTUARIAL VALUATIONS**

Pursuant to provisions in the 1937 Act, FCERA engages an independent actuarial firm, Segal Consulting, to perform an annual actuarial valuation. An experience study is performed every three years (triennial experience study).

The economic and non-economic assumptions are updated at the time each triennial experience study is performed. Triennial experience studies serve as the basis for assumptions required in developing employer and member contribution rates necessary to properly fund the Plan. FCERA periodically hires an independent actuarial firm to audit the results of the valuations. New assumptions were adopted by the Board for the June 30, 2020 actuarial valuation based on the results of the July 1, 2015 through June 30, 2018 triennial non-economic and economic Experience Study. The next Experience Study will be completed after the 2021 valuation is issued and results will be incorporated in the 2022 valuation.

The latest actuarial valuation increased the County normal cost rate from 16.11% to 16.18% of payroll primarily due to a change in the public sector generational benefit-weighted mortality tables and a reduction in the annual inflation assumption from 3.00% to 2.75%. The County's required contribution rate to finance the unfunded actuarial accrued liability (UAAL) increased from 38.97% to 44.66% of payroll. There is also an increase of 5.76% in the total required contribution rate from the prior valuation, from 55.08% to 60.84% of payroll.

Notes to the Basic Financial Statements: Note 8

NOTE 8 – GASB 67 RELATED DISCLOSURES

Long-term Expected Rate of Return by Asset Class

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

The long-term expected arithmetic real rate of return assumption was developed through a comprehensive asset-liability study completed in June 2018. However, users of this report must be aware that due to the gradual implementation of the target allocation presented below, there will be a difference between this schedule and the target allocation presented in the Investment Section on pages 66, 67, and 68.

	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return
Large Cap U.S. Equity	20%	5.44%
Small Cap U.S. Equity	5%	6.18%
Developed International Equity - Large Cap	15%	6.54%
Developed International Equity - Small Cap	3%	6.64%
Emerging International Equity	6%	8.73%
U.S. Core Fixed Income	4%	1.42%
High Yield Fixed Income	3%	3.64%
Global Bonds	7%	0.16%
Bank Loans	3%	3.45%
TIPS	3%	1.20%
Emerging Market Debt	3%	4.72%
Real Estate	3%	4.51%
Real Estate - Value Added	1%	8.80%
Real Estate - Opportunistic	1%	12.00%
Infrastructure	3%	7.90%
Hedge Funds	6%	3.20%
Private Equity	6%	9.90%
Private Credit	8%	5.80%
Total	100%	

Notes to the Basic Financial Statements: Note 8 continued

Net Pension Liability

GASB Statement No. 67 requires public pension plans to disclose the net pension liability of the Plan. The net pension liability is measured as the total pension liability less the amount of the Plan's fiduciary net position. The net pension liability is an accounting measurement for financial statement reporting purposes. The components of FCERA's net pension liability at June 30, 2020, are disclosed on the following page and on page 56 in the Required Supplementary Information.

Net Pension Liability

As of June 30, 2020

(Dollars in Thousands)

	2020
Total pension liability	\$ 6,325,969
Less: Fiduciary net position	(4,935,295)
Net pension liability	\$ 1,390,674
Fiduciary net position as a percentage of the total pension liability	78.02%

The measurement date of the net pension liability was June 30, 2020. The total pension liability was determined based upon rolling forward the actuarial valuation as of June 30, 2019 to the measurement date.

The following Actuarial Assumptions were approved by the Board of Retirement in April 2019 based on results of the most recent actuarial experience study for the review period of July 2015 through June 2018. The total Plan liability as of June 30, 2020 was re-measured by (1) revaluing the total pension liability as of June 30, 2019 (before the roll forward) to include the following actuarial assumptions that the Retirement Board had adopted for use in the pension funding valuation as of June 30, 2020 and (2) using this revalued total pension liability in rolling forward the results from June 30, 2019 to June 30, 2020. It is important that readers understand that these newest assumptions are included in the GASB 67 Valuation at June 30, 2020 and presented here, but will not match with the assumptions in the Actuarial Section on page 79 as the Actuarial Section reflect the assumptions in place as of July 1, 2019 and applied by employers for contribution calculation purposes for the current reporting fiscal year.

Inflation	2.75%
Salary Increases	General: 4.35% to 11.75%; and Safety: 4.75% to 11.75%, varies by service, including inflation.
Investment Rate of Return	7.00%, net of Pension Plan investment expenses, including inflation.
Administrative Expenses	1.20% of payroll, allocated 1.02% to employers and 0.18% to employees.

Notes to the Basic Financial Statements: Note 8 continued

Mortality

Various rates based on RP-2014 Mortality tables in the June 30, 2018, actuarial valuation.

Discount Rate

The discount rate of 7.00% was used to measure the total pension liability as of June 30, 2020. The projection of cash flows used to determine the discount rate assumed Plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employer contributions that are intended to fund benefits for current Plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future Plan members and their beneficiaries, as well as projected contributions from future Plan members, are not included. Based on those assumptions, the 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 June 30, 2020.

Sensitivity of the net pension liability to changes in the discount rate. The following schedule below presents the net pension liability of FCERA as of June 30, 2020, calculated using the discount rate of 7.00%, as well as what the FCERA's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower, 6.00%, or 1-percentage-point higher, 8.00%, than the current rate.

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
(Dollars in Thousands)			
FCERA's net pension liability as of June 30, 2020	\$ 2,256,061	\$ 1,390,674	\$ 682,792

Money-Weighted Rate of Return

For the fiscal year ended June 30, 2020, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 0.68%. For commentary on the overall investment performance of the Plan please see the Investment Consultant's Report on page 61. It is important to note that the Investment Consultant's Report discloses the Plan's return data using the industry standard time-weighted rate of return which will differ from the money-weighted rate of return referenced here. The money-weighted rate of return (identical in concept to Internal Rate of Return) expresses investment performance, net of investment expense, adjusted for the changing amounts (inflows and outflows) actually invested.

Notes to the Basic Financial Statements: Note 9

NOTE 9 – SUBSEQUENT EVENTS

Date of Management's Review

The potential for additional subsequent events were evaluated from the fiscal year-end report date of June 30, 2020 through December 1, 2020, which is the date the financial statements were available to be issued. Management did not identify any additional subsequent events that would require disclosure.

Required Supplementary Information

Schedule of Employer Contributions

Last Ten Fiscal Years

Fiscal Year Ended June 30	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
2020	\$ 247,474,000	\$ 247,474,000	\$ -	\$ 451,525,000	54.81%
2019	225,492,000	225,492,000	-	423,092,000	53.30%
2018	210,535,000	210,535,000	-	403,018,000	52.24%
2017	198,472,000	198,472,000	-	386,345,000	51.37%
2016	191,529,000	191,529,000	-	370,318,000	51.72%
2015	184,213,000	184,213,000	-	351,109,000	52.47%
2014	165,309,000	165,309,000	-	350,326,000	47.19%
2013	158,572,000	158,572,000	-	346,808,000	45.72%
2012	157,869,000	157,869,000	-	346,742,000	45.53%
2011	130,290,000	130,290,000	-	385,204,000	33.82%

Schedule of Investment Returns – Pension Plan

*For the Fiscal Years Ended June 30, 2014 through 2020**

	2020	2019	2018	2017	2016	2015	2014
Annual Money-Weighted Rate of Return, Net of Investment Expenses	0.68%	5.49%	7.62%	10.47%	0.02%	0.02%	17.26%

Actuarial Methods and Assumptions

As required by GASB Statement No. 67, FCERA's actuary completed the measure of the net pension liability as of June 30, 2020 and June 30, 2019 by rolling forward the total pension liability information for financial reporting, as of June 30, 2019 and June 30, 2018, respectively. The basis for these calculations was the latest Valuation Report, prepared for funding purposes. All actuarial methods and assumptions used for this roll forward analysis were the same as those used in the June 30, 2018 Valuation Report. Actuarially determined contribution rates are based on the actuarial valuation one year prior to the beginning of the Plan year.

Valuation date	June 30, 2018
Actuarial cost method	Entry age actuarial cost method
Amortization method	Level percent of payroll (3.50% payroll growth assumed).
Remaining amortization period	15 years remaining over a declining period as of June 30, 2018 actuarial valuation for unfunded actuarial accrued liability (UAAL) established as of June 30, 2003 plus 15 years (declining) for UAAL due to actuarial gains or losses, changes in actuarial assumptions or plan

Required Supplementary Information continued

	amendments established on each subsequent valuation.
Asset valuation method	The actuarial value of assets is determined by recognizing any difference between the actual and the expected market return over 10 six-month interest crediting periods. The actuarial value of assets is further adjusted, if necessary, to be within 30% of the market value of assets. The valuation value of assets is the actuarial value of assets reduced by the value of the non-valuation reserves. Deferred gains and losses as of June 30, 2015 have been combined and will be recognized in equal amounts over a period of four and a half years from that date.
<u>Actuarial assumptions:</u>	
Investment rate of return	7.00% net of pension plan investment expenses (includes inflation at 3.0%).
Inflation rate	3.0%
Administrative expenses	1.10% of payroll allocated to both the employer and member based on the components of the total contribution rate (before expenses) for the employer and member.
Projected salary increases	Rates vary by service type:
- General Members	Salary increases range from 4.50% to 11.50%, including inflation.
- Safety Members	Salary increases range from 4.90% to 11.50%, including inflation.
Cost of living adjustments	3.00% of retirement income for General Tiers 1, 2 and 3, and Safety Tiers 1 and 2. 0.00% for General and Safety Tiers 4 and 5.
Other assumptions	Same as the assumptions in the June 30, 2018 funding actuarial valuation.
Other information	All members with membership dates on or after January 1, 2013 enter the Tier 5 created by PEPRA.

Required Supplementary Information

Schedule of Changes in Net Pension Liability and Related Ratios

For the Fiscal Years Ended June 30, 2020, 2019, 2018, 2017, 2016, 2015, 2014, and 2013*

	2020	2019	2018	2017	2016	2015	2014	2013
Total pension liability								
Service cost	\$ 110,809,270	\$ 108,089,840	\$ 108,233,884	\$ 109,231,556	\$ 105,592,251	\$ 104,671,060	\$ 107,568,854	\$ 98,293,207
Interest	423,497,695	410,338,790	393,404,348	381,845,701	366,855,100	355,525,811	341,121,326	336,460,778
Change of benefit terms	-	-	-	-	-	-	-	-
Differences between expected and actual experience	22,279,347	12,058,315	(70,094,731)	(70,197,987)	(42,178,682)	(50,048,133)	(146,396,595)	(143,645,760)
Changes of assumptions	-	(67,930,738)	-	-	235,227,824	-	-	265,552,249
Benefit payments, including refunds of employee contributions	(294,992,402)	(280,032,239)	(263,231,547)	(249,846,894)	(240,231,254)	(231,396,472)	(224,392,602)	(212,956,631)
Other ¹	-	-	-	-	-	10,306,014	-	-
Net change in total pension liability	\$ 261,593,910	\$ 182,523,968	168,311,954	171,032,376	425,265,239	189,058,280	77,900,983	343,703,843
Total pension liability - beginning	6,064,374,653	5,881,850,685	5,713,538,731	5,542,506,355	5,117,241,216	4,928,182,936	4,850,281,953	4,506,578,110
Total pension liability - ending (a)	\$ 6,325,968,563	\$ 6,064,374,653	5,881,850,685	5,713,538,731	5,542,506,455	5,117,241,216	4,928,182,936	4,850,281,953
Fiduciary net position								
Contributions - employer	247,474,194	225,491,692	210,534,894	198,472,119	191,529,239	184,213,235	165,309,213	158,572,420
Contributions - employee	41,761,381	40,463,120	38,467,001	36,259,132	35,211,756	33,109,947	30,153,934	30,515,683
Net investment income (loss)	12,966,492	254,693,657	312,556,013	417,603,730	(4,319,055)	360,796	583,169,608	378,483,400
Benefit payments, including refunds of employee contributions	(294,992,402)	(280,032,239)	(263,231,547)	(249,846,894)	(240,231,354)	(231,396,472)	(224,392,602)	(212,956,631)
Administrative expenses	(6,422,137)	(5,980,558)	(5,676,721)	(4,762,253)	(4,814,003)	(4,297,090)	(3,541,682)	(3,633,683)
Other	-	-	-	-	-	-	(21,269)	(42,121)
Net change in fiduciary net position	787,528	234,635,672	292,649,640	397,725,834	(22,623,417)	(18,009,584)	550,677,202	350,939,068
Fiduciary net position - beginning	4,934,507,078	4,699,871,406	4,407,221,766	4,009,495,932	4,032,119,349	4,050,128,933	3,499,451,731	3,148,512,663
Fiduciary net position - ending (b)	4,935,294,606	4,934,507,078	4,699,871,406	4,407,221,766	4,009,495,932	4,032,119,349	4,050,128,933	3,499,451,731
Net pension liability - ending (a) - (b)	\$ 1,390,673,957	\$ 1,129,867,575	\$ 1,181,979,279	\$ 1,306,316,965	\$ 1,533,010,523	\$ 1,085,121,867	\$ 878,054,003	\$ 1,350,830,222
Fiduciary net position as a percentage of the total pension liability	78.02%	81.37%	79.90%	77.14%	72.34%	78.79%	82.18%	72.15%
Covered payroll ²	\$ 451,525,000	\$ 423,092,000	\$ 403,018,000	\$ 386,345,000	\$ 370,318,000	\$ 351,109,000	\$ 350,326,000	\$ 346,808,000
Net pension liability as percentage of covered payroll	307.99%	267.05%	293.28%	338.12%	413.97%	309.06%	250.64%	389.50%

Notes to Schedule:

Benefit changes: All new members with membership dates on or after January 1, 2013 enter the new tier created by PEPRA.

*Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

¹ Estimated liability impact for including a group of about 1,420 members reported for the first time as vested terminated members in the June 30, 2015 funding valuation.

² Covered payroll is the payroll on which contributions to the pension plan are based.

Other Supplementary Information

Schedule of Administrative Expenses

For the Fiscal Year Ended June 30, 2020, with Comparative Totals

(Dollars displayed as Actual)

	2020	2019
Personnel Services		
Salaries and Benefits	\$ 3,626,324	\$ 3,058,014
Total Personnel Services	3,626,324	3,058,014
Office Expenses		
Election Expenses	14,586	-
Office Supplies and Miscellaneous Admin.	179,254	69,117
Postage	41,980	29,370
Telephone	20,802	20,258
Utilities	40,459	38,654
Total Office Expenses	297,081	157,399
Other Services and Charges		
Disability Expenses	313,190	384,208
Data Processing Services	231,626	227,123
Equipment / Furnishings	-	909
Insurance	167,122	144,102
Maintenance	58,499	55,161
Operating Leases Buildings	142,945	380,948
Professional and Specialized Services	554,160	555,050
Transportation, Travel, and Education - Staff	38,068	52,895
Transportation, Travel, and Education - Board	21,696	45,330
Total Other Services and Charges	1,527,306	1,845,726
Depreciation	971,426	919,419
Total Administrative Expenses	\$ 6,422,137	\$ 5,980,558

Other Supplementary Information continued

Schedule of Information Technology Expenses

For the Fiscal Year Ended June 30, 2020, with Comparative Totals

(Dollars displayed as Actual)	2020	2019
Property and Equipment	\$ 14,602	\$ -
Pension System Maintenance	115,497	107,154
Subtotal Excluded IT Expenses ¹	130,099	107,154
IT Infrastructure ²	196,429	292,380
Total Information Technology Expenses	\$ 326,528	\$ 399,534

¹ As defined by Government Code Section 31580.2.

² IT Infrastructure amounts are accounted for in the Depreciable Capital Assets.

Schedule of Investment Expenses

For the Fiscal Year Ended June 30, 2020, with Comparative Totals

(Dollars displayed as Actual)	2020	2019
Investment Manager Fees	\$ 25,651,882	\$ 27,230,807
Custodian Service Fees ²	58,185	118,000
Actuarial Valuation Fees ^{1 2}	69,000	113,000
Due Diligence Travel	-	7,887
Investment Legal Fees ²	70,321	69,467
Investment Consultant Fees ²	450,415	418,217
Subtotal Investment Expenses ²	26,299,803	27,957,378
Securities Lending Expenses	1,009,916	568,773
Total Investment and Security Lending Expenses	\$ 27,309,719	\$ 28,526,151

¹ Actuarial Valuation Fees are the fees for producing the Actuarial Valuation Report.

² Investment Legal Fees, Investment Consultant Fees, Custodian Service Fees, and Actuarial Valuation Fees can also be found on page 60 as Payments to Consultants.

Other Supplementary Information continued

Schedule of Payments to Consultants

For the Fiscal Year Ended June 30, 2020, with Comparative Totals

(Dollars displayed as Actual)	2020	2019
Actuarial Consulting Fees (non-actuary study costs) \$	47,796	\$ 39,470
Actuarial Valuation Fees ¹	69,000	113,000
Audit Fees	63,575	62,300
Custodian Service Fees ¹	58,185	118,000
Data Processing Fees	231,625	227,123
Disability Attorney Fees	113,571	139,375
Disability Medical, Investigation, and Copying Fees	199,619	244,833
Investment Consultant Fees ¹	450,415	418,217
Investment Legal Fees ¹	70,321	69,467
Other Professional Expenses	323,172	347,884
Retirement Board Attorney Fees	119,617	105,396
Total Payments to Consultants	\$ 1,746,896	\$ 1,885,065

Refer to page 72 for information on fees paid to investment managers.

¹ Investment Legal Fees, Investment Consultant Fees, Custodian Service Fees, and Actuarial Valuation Fees can also be found on page 59 as Investment Expenses.



Investment Section

August 17, 2020

Board of Trustees
Fresno County Employees' Retirement Association
7772 N. Palm Avenue
Fresno, CA 93711

Dear Trustees:

Verus Advisory ("Verus") is pleased to provide the Board of Trustees of Fresno County Employees' Retirement Association ("FCERA") with an overview of the market environment, an update on performance, and a summary of recent developments for the fiscal year ended June 30, 2020.

Investment Landscape

■ *Economy, COVID-19, Fiscal & Monetary Response*

During the latter half of 2019, global economies generally exhibited moderate and positive economic growth, inflation remained mild, central bank policies were accommodative to further growth, labor markets had fully recovered from the Global Financial Crisis, and economic surprises were few. Risk assets delivered robust performance during the second half of the year. The U.S. showed leadership (S&P 500 +10.9 percent) with International Developed and Emerging Market Equities close behind (MSCI EAFE +7.0 percent, MSCI Emerging Markets 7.1 percent). Sovereign bonds largely moved sideways outside of U.S. Treasuries (Bloomberg Barclays U.S. Treasury +1.6 percent) as longer-dated Treasury yields continued to trend lower. High-yield credit (Bloomberg Barclays Corporate High Yield +4.0 percent) posted solid performance, as credit spreads compressed modestly. Commodities posted solid performance as well (Bloomberg Commodity Index +2.5 percent), led by the precious metals (+9.2 percent) component as gold price soared.

Investors' main concerns in the market appeared to be around troubled U.S.-Chinese relations, the resulting trade conflict which could interrupt economic progress and corporate profits, and even the potential for military conflict. However, the relationship between the two superpowers was seemingly on a more conciliatory track. A series of meetings between the U.S. and Chinese officials culminated in a "phase one" deal addressing agricultural trade, intellectual property protections, and some loose agreements on how China would manage its currency.

In early 2020, the calm and relatively stable environment began to shift. A novel coronavirus (COVID-19) began spreading through Wuhan, the capital of China's Hubei province. Though Wuhan ranks as the 9th largest city in China with nearly 12 million inhabitants, it is materially larger than New York City by population. As the virus began to spread, the Chinese government essentially locked down Wuhan, and implemented a series of rather draconian containment measures in an attempt to keep the virus within the city. Unfortunately, containment efforts were ineffective, and the virus continued to spread, from China to Italy to Europe more broadly, to the United States, and to the rest of the world. By the end of July, the virus had spread to over 17 million people in 213 countries and territories, resulting in over 660,000 deaths. The sudden impact of this global pandemic on economic activity and markets was unprecedented. News flow over the first half of 2020 was centered on the trajectory of the virus, the status of voluntary and

involuntary social distancing controls, and fiscal and monetary policy support provided in efforts to mitigate the economic damage of the pandemic.

One of the most immediate effects of the forced closure of businesses around the world was an unparalleled shock to the global labor market, which had been chugging along through the second half of 2019. In the United States, approximately 10 million workers applied for unemployment benefits in the last two weeks of March alone. In the single week ending March 27th, nearly seven million people applied for those benefits. For context, during the Global Financial Crisis, the greatest number of Americans that applied for unemployment assistance in a single week was 665,000. The unemployment rate rose from a 50-year low of 3.5 percent in February to 14.7 percent in April—the worst level since the Great Depression.

U.S. real GDP contracted sharply on a quarter-over-quarter basis in Q2, falling -32.9 percent, and down -9.5 percent over the past year. The slowdown consisted of decreased consumer spending, exports, inventory investment, fixed investment, as well as state and local government expenditures. Federal government spending partly offset the deceleration. While significant, this shock to the economy was in line with expectations. Investors appear to expect GDP to bounce back partially in 2020 with a near full recovery in 2021, aided by vast government fiscal and monetary policy responses.

Between December 2015 and December 2018, the Federal Reserve hiked rates nine times to a range of 2.25-2.5 percent. In the second half of 2019, the Fed cut rates by 0.25 percent three times, and then COVID-19 hit. The size and pace of the shutdowns necessitated central bank intervention on a massive scale to prevent a possible breakdown in financial market functioning. The Federal Reserve cut its range for the federal funds rate by 1.50 percent to 0.0-0.25 percent, and dusted off a variety of global financial crisis-era liquidity facilities to help calm markets, which were posting consecutive days of high single-digit (even double-digit) percentage moves. The Federal Reserve's balance sheet swelled from around \$4.7 trillion to \$7.2 trillion between the end of March and the beginning of June as the New York Fed's trading desk purchased massive amounts of U.S. Treasuries and mortgage-backed securities. Additionally, the Fed opened facilities allowing it to buy corporate debt through ETFs, and even expanded eligibility for those programs to include junk bonds that had held investment-grade credit ratings prior to the onset of the pandemic. On the fiscal front, Congress passed the CARES Act, resulting in the distribution of \$1,200 checks to most Americans, the establishment of the Paycheck Protection Program, and the implementation of \$600 in weekly additional unemployment benefits.

▪ *Markets and asset class performance*

COVID-19 began to course through the U.S. in the first quarter, leading to a significant selloff in risk assets between February and March, though these assets went on to recoup most of those losses in the second quarter. The S&P 500 Total Return Index plunged -33.8 percent between February 19th and March 23rd, before rising +39.3 percent by the end of the second quarter. At quarter-end, the S&P 500 reached 3100—placing the index within 10 percent of the February high water mark of 3386.

Over the full trailing year, the S&P 500 (+7.5 percent) outperformed both emerging market equities (MSCI Emerging Markets Index -3.4 percent) and international developed equities (MSCI EAFE Index -5.1 percent) in U.S. dollar terms. China (MSCI China Index +13.1 percent) supported emerging market equity performance substantially, likely due to having moved into the recovery phase relatively quickly. The J.P. Morgan Emerging Market Currency Index, a basket of ten emerging market currencies, depreciated roughly -14.0 percent relative to the dollar, presenting material headwinds for U.S. investors in emerging market equities.

Bonds rallied for much of the fiscal year, and ten-year Treasury yields fell from 2.0 percent to 0.66 percent, establishing fresh all-time closing lows of 0.54 percent along the way. Holding duration in portfolios provided a significant downside ballast. The Bloomberg Barclays Long Duration Treasury Index returned 25.4 percent, topping the fixed income performance table over the one-year period. The rally in European sovereign bonds was more muted, as yields had less room to fall and the European Central Bank preferred not to push their main deposit rate below -0.50 percent.

Credit spreads jumped considerably in Q1, leading to poor performance in credit over the quarter. On March 23rd, the option-adjusted spreads of the Bloomberg Barclays Aggregate Corporate and Corporate High Yield indices topped out at 3.7 percent and 11.0 percent, respectively. From a sector perspective, stress in the energy market exacerbated the blowout in spreads as concerns over the crude oil outlook worked their way into debt pricing. In the second quarter, however, as corporate credit facilities announced by the Fed in March became operational, spreads fell—back down to 6.26 percent for high yield credit and 1.50 percent for investment grade credit—resulting in a performance comeback. Over the fiscal year, investment-grade credit posted performance of 9.5 percent while high-yield credit underperformed, returning 0.0 percent.

Exposure to commodities hurt investors over the fiscal year, but especially in the first half of 2020, primarily due to the precipitous decline in the oil market as demand dried up alongside the slowdown in global economic activity. The Bloomberg Commodity Index returned -17.4 percent over the fiscal year, and the Energy component of the index (Bloomberg Energy Sub-Index -45.7 percent) suffered far more severe losses. Precious metals, however, were a bright spot, and returning +24.2 percent over the fiscal year, primarily due to an incredible rally in gold prices. Spot gold prices rose from \$1410/oz to \$1781/oz, closing in on the prior all-time high level of \$1900 which was established in late 2011.

■ *Outlook*

We will continue to monitor the progression of COVID-19 and its impacts on global health and economic activity, the shape and speed of the economic recovery here in the United States and elsewhere (which will likely determine the path of risk assets), central bank actions and the degree to which future support is offered to economies and markets, and, lastly, the evolving relationship between the world's two great superpowers—the United States and China—which will have far-reaching implications based on the path which this relationship takes. Knowing how all these interconnected issues resolve themselves is of course, impossible, and so prudent diversification continues to be the best course of action.

Plan Performance

The FCERA investment portfolio (“the Portfolio”) earned a 1.0 percent return net of fees for the fiscal year ending June 30, 2020. This return underperformed the policy index return by -1.6 percent. Portfolio risk as measured by standard deviation increased over the last fiscal year, driven in large part by volatility in Q1. For the trailing 5-year period, annualized standard deviation was 8.4 percent, however for the trailing three-year period, the standard deviation was 9.5 percent.

In terms of asset class returns, performance was mixed. The domestic equity portfolio finished the fiscal year up 4.2 percent but lagged the Russell 3000 index return of 6.5 percent. The largest detractor were value-oriented strategies, which have lagged more growth-focused investment strategies. The Portfolio’s international equity investments were down -4.9 percent and underperformed the benchmark return of -4.4 percent. A strong Dollar has weighed on international equity. Private equity gained 8.3 percent compared to -24.0 percent for the public markets benchmark. Private credit also showed excess return, generating a -0.4 percent return compared to -6.9 percent. Private market investments are lagged such that these results reflect marks through the end of March; the public market-based benchmarks reflect COVID-related volatility and do not benefit from the smoothing impacts of quarterly valuations in the manner that the actual portfolio does.

Fixed income underperformed the benchmark for the fiscal year, returning 1.7 percent compared to the benchmark return of 4.2 percent. Underperformance can be attributed to FCERA’s higher allocation to credit assets such as high yield and bank loans during an unprecedented Q1 2020 market environment that saw credit spreads expand considerably. The strong performance of the benchmark reflects a large allocation to developed markets sovereign debt.

Performance across real assets were mixed as the Portfolio’s infrastructure allocation, while relatively small, did very well, up 11.5 percent for the period. Conversely, real estate did not fare as well returning 0.5 percent versus a 1.3 percent return for the benchmark. Hedge funds generated net returns of -0.4 percent, trailing the benchmark return of 0.4 percent. FCERA is currently in the process of liquidating their hedge fund portfolio.

On a longer-term annualized basis, the Portfolio has generated consistent performance in line with the historically more-conservative strategic target. With that said, volatility in the first half of 2020 slightly reduced trailing annualized returns. For the three-years ending June 30, 2020, the Portfolio generated an average annual return of 4.6 percent, underperforming the policy index return by 40 basis points. Over the five-year period, the Portfolio returned 4.7 percent, underperforming the policy index by 50 basis points. For the trailing ten-year period, the Portfolio returned 7.2 percent, underperforming the policy index by 10 basis points.

In computing individual manager returns, Verus utilizes the industry-standard approach of computing a time-weighted rate of return based on the market rate of return. All returns cited are net of investment manager fees.

Plan Activity

During the 2020 fiscal year we worked with FCERA to continue implementation of the asset-liability study that was initiated in 2018. This included further progress on the gradual transition

of the portfolio towards a larger equity allocation, and the elimination of hedge funds and commodities.

Verus spent considerable time working with FCERA to refine the target asset allocation with the goal of trying to balance the increased risk coming from equities, exploring methods to manage downside risk more explicitly through improved diversification. The culmination of this exercise was the carve-out of a 15% allocation to very high-quality bonds (commonly referred to as “core bonds”).

During the fiscal year we also worked with staff to analyze the portfolio’s liquidity; this included education and analysis aimed at the sources of liquidity, monthly cash flows, and allocation of cash. We assisted FCERA in conducting pacing analyses for its private market assets with the goal of estimating future additional commitments to achieve and maintain the desired market value exposure. Lastly, Verus worked to provide education on a variety of important topics to assist the Board in their understanding of various portfolio management concepts.

All of us here at Verus appreciate the opportunity to assist the FCERA Board in meeting the Plan’s investment objectives. We are confident in the direction of the portfolio, and we look forward to continuing our partnership as we navigate ever-changing capital markets.

Sincerely,



Jeffrey J. MacLean
Chief Executive Officer

Past performance is no guarantee of future results. This document is provided for informational purposes only and is directed to institutional clients and eligible institutional counterparties only and is not intended for retail investors. Nothing herein constitutes investment, legal, accounting or tax investment vehicle or any trading strategy. This document may include or imply estimates, outlooks, projections and other “forward-looking statements.” No assurance can be given that future results described or implied by any forward-looking information will be achieved. Investing entails risks, including possible loss of principal. Verus – also known as Verus Advisory™.

General Information

The goal of Fresno County Employees' Retirement Association (FCERA) is to provide retirement compensation, death benefits, and disability benefits to its members. The Plan should meet this goal through prudent investment of employee and employer contributions.

The County Employees Retirement Law of 1937 governs the Plan. California Public Law (including Sections 31594 and 31595) also regulates Plan action. Sections 31594 and 31595 are especially important because they provide for prudent person governance of the Plan. These laws do not specify the type, amount, and quality of Plan investments. Rather, these laws guide the Plan to make investments assumed to be in the best interest of the Plan's beneficiaries. Such decisions should be consistent with the decisions of other investors possessing similar information.

The Board of Retirement has exclusive control of the investments of the Plan's retirement fund. The assets of the Plan are trust funds and shall be held for the exclusive purposes of providing benefits to its members in the pension or retirement system and their beneficiaries and defraying reasonable expenses of administering the Plan. Except as otherwise expressly restricted by the California Constitution and by law, the Board may, in its discretion, invest, or delegate the authority to invest, the assets of the fund through the purchase, holding, or sale of any form or type of investment financial instrument, or financial transaction when prudent in the informed opinion of the Board.

The officers and employees of the Board shall discharge their duties to the Plan as follows:

- The Board will act solely in the interest of and for exclusive purposes of providing benefits to participants and their beneficiaries. The Board will keep employer contributions to the Plan at a minimum level. The Board will also pay reasonable expenses required to administer the plan.
- The Board will act like a prudent person under equivalent circumstances and having similar goals. Attention to care, skill, prudence, and diligence is of utmost importance when acting on behalf of the Plan.
- The Board shall diversify the Plan's investments to minimize the risk of loss and to maximize the rate of return, unless under the circumstances it is clearly prudent not to do so. The diversification of the Plan's portfolio is displayed in the tables and graphs included in the following pages.

The Plan's assets are exclusively managed by external, professional investment management firms. The Board closely monitors the performance of the managers with the assistance of an external investment consultant.

Summary of Investment Objectives

Summary of Investment Objectives

The Plan's primary objective is to efficiently allocate and manage the assets dedicated to the payment of retirement and disability benefits. While recognizing the importance of "preservation of capital," the Plan also adheres to the principle that varying degrees of investment risk are generally rewarded with compensating returns in the long run.

To accomplish its investment objectives, the Plan has established a series of procedures and guidelines. The procedures, grouped together as the Investment Policy, serve to guide the Plan's investment program. The procedures also help to define the responsibilities of the Board members as they relate to the investment process.

The policy drives the investment actions of the Plan. This policy considers various mixes of different investment asset class risk and return expectations for each mixed-class portfolio current and projected plan liabilities. The policy places responsibility for proxy voting with its equity investment managers.

The Investment Results on page 68 are based on time-weighted rate of return using fair value and are annualized for three and five years. All other information is reported at fair value.

Target and Actual Asset Allocations

The Board reviews the Plan's investment results each quarter. Periodically, the Board reviews the asset allocation, taking into consideration the latest actuarial study. Based on this review, the Board adopts an asset allocation mix with the goal of helping the Plan achieve a fully funded status. Each asset class has a target allocation. The Plan treats these targets as long-term funding objectives. Adhering to these targets allows the Plan to keep investment risk at a manageable level and minimizes investment costs.

One keystone of asset allocation is diversification among asset classes. Diversification helps to maintain risk at a tolerable level. Therefore, the Board reviews the investment performance and volatility of each asset class on a regular basis over various time periods (quarterly, annually, multi-years) to ensure that the current allocation continues to meet the Plan's needs.

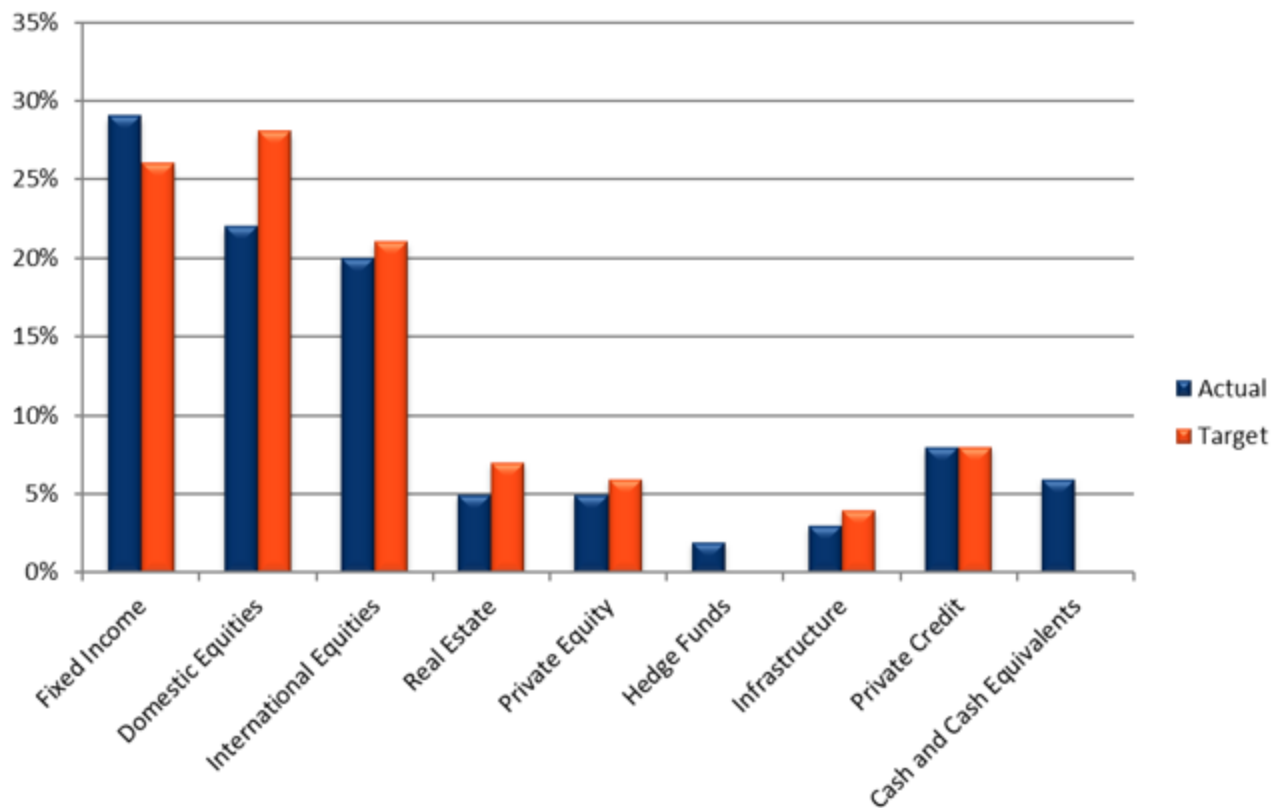
Over time, the Board implements the asset allocation plan by hiring investment managers to invest assets on behalf of the Plan, subject to investment guidelines incorporated into each firm's investment management contract.

The information provided on subsequent pages is a representation of the Plan's financial statements. Individually, they may not tie to the investment consultant's report on pages 61 to 63 of this Comprehensive Annual Financial Report (CAFR) due to the different reporting methodologies used by the investment consultant and the Plan.

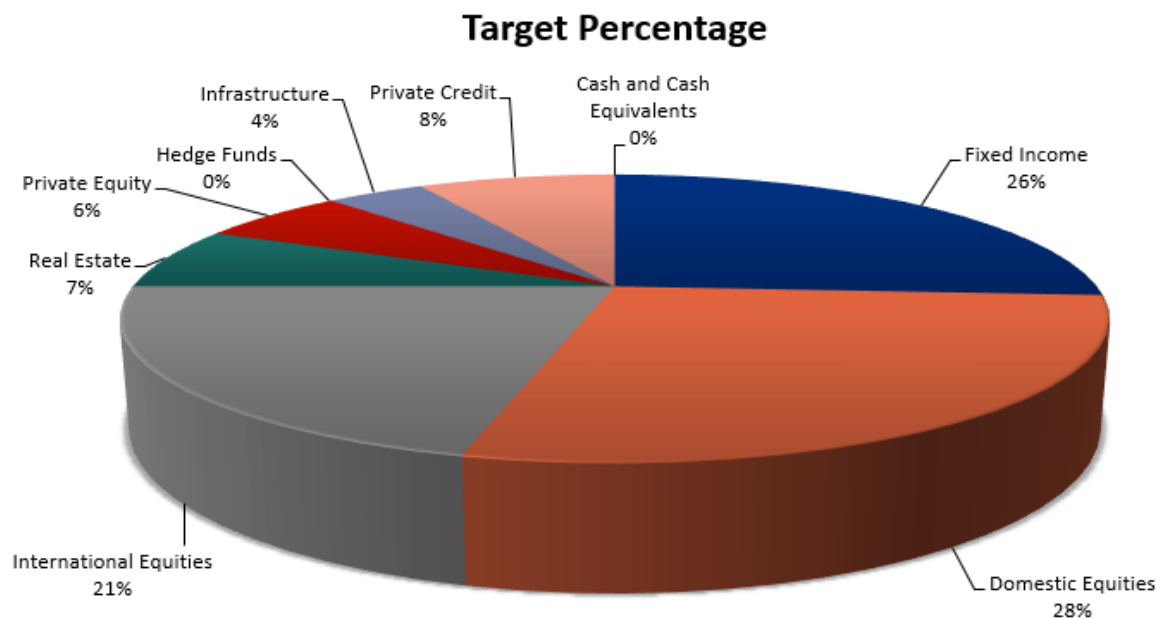
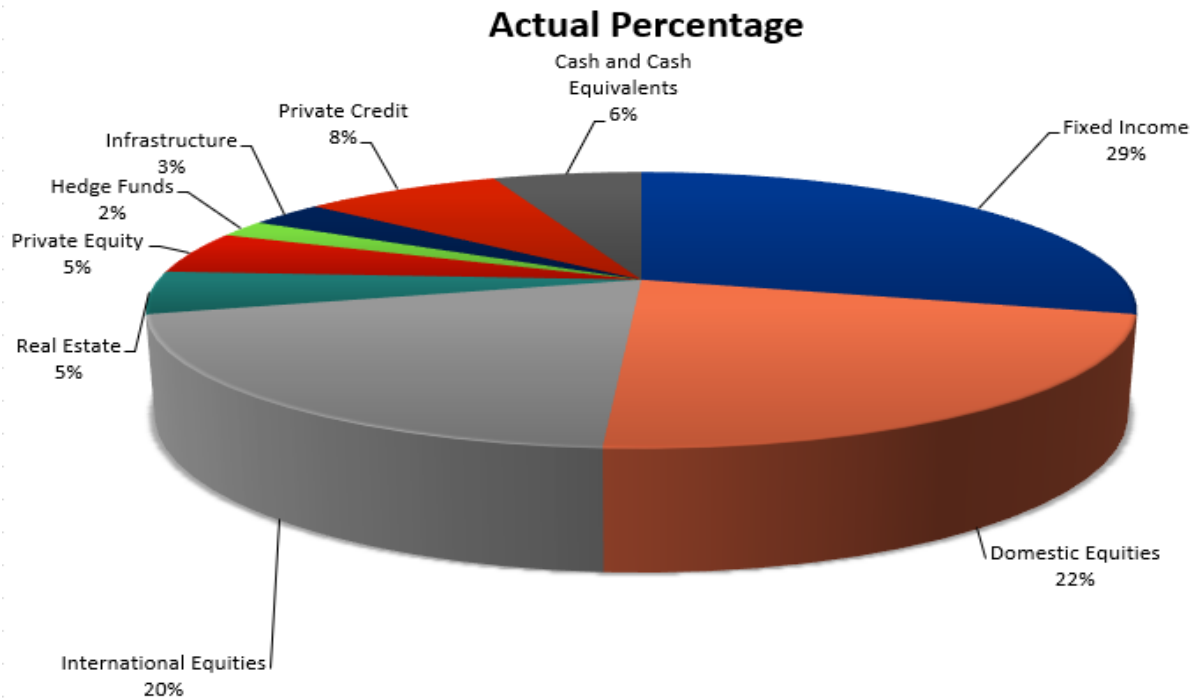
Investment Results

For example, the investment consultant reports cash held with investment managers as part of the investment manager's investment portfolio not as cash and cash equivalents as reported on the Investment Summary. Also, the target asset allocation calls for all cash requirements of the Plan to be classified as Fixed Income. However, the Plan's actual operating cash is reported separately in the Financial Statements and on the Investment Summary.

The fiscal year 2019 – 2020 target and actual asset allocations are presented in the following graphs and charts.



Target and Actual Asset Allocations continued



Target and Actual Asset Allocations continued

Investment Results

As of June 30, 2020

Investments	Current Year	3-Year Return	5-Year Return	10-Year Return
Fixed Income				
Investment Grade Credit	9.50%	6.70%	6.20%	0.00% 1
Benchmark : BBgBarc US Credit TR	9.10%	6.10%	5.50%	5.20%
Access Capital	5.50%	0.00% 1	0.00% 1	0.00% 1
Benchmark : BBgBarc US Securitized Index	5.80%	4.00%	3.30%	3.20%
Domestic High Yield	-1.20%	2.60%	3.60%	0.00% 1
Benchmark : BBgBarc US High Yield TR	0.00% 1	3.30%	4.80%	6.70%
Domestic Senior Loan	-2.30%	1.60%	2.70%	0.00% 1
Benchmark : Leveraged Loan Index	-2.00%	2.10%	2.90%	4.20%
Eaton Vance Senior Loan Plus	-2.20%	1.70%	0.00% 1	0.00% 1
Leveraged Loan Index	-2.00%	2.10%	2.90%	4.20%
TCW TALF Index	0.00% 1	0.00% 1	0.00% 1	0.00% 1
Benchmark : BBgBarc US Aggregate TR	8.70%	5.30%	4.30%	3.80%
Global Sovereign	-2.50%	0.40%	1.80%	0.00% 1
Benchmark : FTSE WGBI TR	4.60%	4.00%	3.70%	2.40%
Emerging Markets Debt	-2.70%	1.50%	2.40%	0.00% 1
Benchmark : JP Morgan GBI EM Diversified	-2.80%	1.10%	2.30%	1.60%
Equities				
Domestic Large Capital Value	-12.40%	0.00% 1	2.00%	9.60%
Benchmark: Russell 1000 Value	-8.80%	1.80%	4.60%	10.40%
Domestic Small Capital	-4.70%	0.00% 1	0.00% 1	0.00% 1
Benchmark: Russell 2000	-6.60%	2.00%	4.30%	10.50%
NT MSCI US Index	0.00% 1	0.00% 1	0.00% 1	0.00% 1
Benchmark: MSCI USA	7.80%	10.40%	10.10%	13.40%
Domestic Large Capital Growth	22.30%	0.00% 1	0.00% 1	0.00% 1
Benchmark: Russell 1000 Growth	23.30%	19.00%	15.90%	17.20%
Emerging Markets Equity	-8.50%	-1.50%	0.40%	2.20%
Benchmark: MSCI Emerging Markets	-3.40%	1.90%	2.90%	3.30%
International Emerging Markets Equity	-0.30%	0.00% 1	0.00% 1	0.00% 1
Benchmark: MSCI Emerging Markets	-3.40%	1.90%	2.90%	3.30%
NT MSCI World Ex-US Index	0.00% 1	0.00% 1	0.00% 1	0.00% 1
Benchmark : MSCI World ex USA	-5.40%	0.80%	2.00%	5.40%
International Growth	1.20%	6.40%	4.30%	0.00% 1
Benchmark : MSCI EAFE	-5.10%	0.80%	2.10%	5.70%
International Equity	-13.50%	-3.30%	0.20%	0.00% 1
Benchmark : MSCI EAFE	-5.10%	0.80%	2.10%	5.70%
International Equity Small Cap	-7.20%	0.60%	3.10%	7.30%
Benchmark : S&P Developed ex U.S. SC Index	-3.70%	0.40%	3.50%	7.70%
Private Markets				
Real Estate	0.50%	4.60%	6.30%	10.00%
Benchmark : NCREIF ODCE	1.30%	4.70%	6.40%	9.80%
Infrastructure	11.50%	15.30%	13.10%	0.00% 1
Benchmark : NCREIF ODCE	1.30%	4.70%	6.40%	9.80%
Hedge Funds	-0.40%	2.00%	1.70%	2.60%
Benchmark : HFRI FOF Composite Index	0.40%	2.20%	1.50%	2.80%
Private Equity	8.30%	11.40%	8.70%	11.30%
Benchmark : Russell 2000	-24.00%	-4.60%	0.20%	8.30%
Private Credit	-0.40%	4.50%	4.40%	6.30%
Benchmark: BBgBarc US Corp High Yield	-6.90%	0.80%	2.80%	5.70%
Cash, Custodial, and Investment Pool				
Custodied Cash	1.70%	1.80%	1.30%	0.90%
Benchmark: 91-Day Treasury Bill	1.30%	1.70%	1.10%	0.60%
County Cash	1.80%	0.00% 2	0.00% 2	0.00% 2
Benchmark: 91-Day Treasury Bill	1.30%	1.70%	1.10%	0.60%
Total Fund	1.00%	4.60%	4.70%	7.20%

Notes: Hedge Funds, Private Equity and Commodities are net of fees. Private Equity returns are lagged one quarter. Other investments are reported gross of fees. Investment results were prepared using a time-weighted rate of return based on the market rate of return.

¹ Domestic Fixed Income and Emerging Market Debt is incorporated under Global Fixed Income.

Return data will be available for 3, 5 and 10 year going forward. Infrastructure was funded in May 2015.

2. Return data available for current year only.

Investment Summary

Investment Summary

As of June 30, 2020

(Dollars in Thousands)

Investments	Fair Value	Actual Percentages ²	Target Percentages
Fixed Income			
Domestic Fixed Income	\$ 766,448	15.45%	19.00%
Foreign Fixed Income	420,149	8.47%	7.00%
U.S. Government and Agencies	226,964	4.57%	0.00%
Total Fixed Income	1,413,561	28.49%	26.00%
Equities			
Domestic Equities	1,076,423	21.70%	28.00%
International Equities	1,000,455	20.17%	21.00%
Real Estate Investment Trusts	3,528	0.07%	0.00%
Total Equities	2,080,406	41.94%	49.00%
Private Markets and Alternatives			
Real Estate	241,872	4.87%	7.00%
Private Equity	261,725	5.28%	6.00%
Hedge Funds	96,762	1.95%	0.00%
Infrastructure	171,285	3.45%	4.00%
Private Credit	378,003	7.62%	8.00%
Total Private Markets and Alternatives	1,149,647	23.17%	25.00%
Derivatives	33,257	0.67%	0.00%
Total Investments	4,676,871	94.27%	100.00%
Cash and Cash Equivalents			
Cash Held in County Investment Pool	148,355	2.99%	0.00%
Short - Term Investment with Fiscal Agent	135,888	2.74%	0.00%
Total Cash and Cash Equivalents	284,243	5.73%	0.00%
Total Investments, Cash and Cash Equivalents	\$ 4,961,114	100.00%	100.00%

¹ Amounts may not equal 100% due to rounding.

Largest Fixed Income and Equity Holdings

Largest Fixed Income Holdings (By Fair Value)

As of June 30, 2020

Par	Name	Yield	Maturity Date	Fair Value
\$ 773	FUT SEP 20 5Y T-NOTE	0.1200	09/30/2020	\$ 97,198,711
4,059,340	MFO PIMCO PAPS ASSET BACKED SECURITIES	4.0820	07/01/2021	50,214,030
345	FUT SEP 20 5Y T-NOTE	N/A	09/30/2020	43,381,055
193	FUT SEP 20 EUX EURO-BTP	N/A	09/01/2020	31,188,574
174	FUT SEP 20 U.S. T-BONDS	N/A	09/21/2020	31,069,875
27,860,000	UNITED STATES TREAS NTS FLTG RT	0.3690	07/31/2021	27,913,436
22,900,000	FNMA SINGLE FAMILY MORTGAGE	2.8570	09/14/2050	24,045,908
17,180,000	UNITED STATES BDS TREASURY BOND	1.9230	11/15/2049	21,219,984
137	FUT SEP 20 10Y T-NOTE	N/A	09/21/2020	19,066,547
18,790,000	WI UNITED STATES TREAS NTS FLTG RT	0.2890	04/30/2021	18,807,211
\$ 90,790,962	Total			\$ 364,105,331

Largest Equity Holdings (By Fair Value)

As of June 30, 2020

Shares	Name	Fair Value
7,871	AMAZON.COM INC	\$ 21,714,672
71,703	MICROSOFT CORP	14,592,277
65,870	DEUTSCHE BOERSE AG NPV (REGD)	11,914,784
8,230	ALPHABET INC	11,670,552
51,045	LINDE PLC	10,789,731
81,395	NESTLE SA CHF0.10(REGD)	8,997,216
39,129	FACEBOOK INC	8,885,022
24,784	ROCHE HLDGS AG	8,588,282
53,467	AIR LIQUIDE(L)	7,710,608
30,040	ADR ALIBABA GROUP HLDG	6,479,628
433,534	Total	\$ 111,342,772

A complete list of portfolio holdings is available upon request.

List of Investment Managers

Domestic Bonds

Eaton Vance
Loomis Sayles
RBC Access Capital
TCW TALF Opportunities Fund
Western Asset Management Company

Global Bonds

Brandywine
Pimco EMD

Domestic Stocks

Aronson, Johnson & Ortiz, L.P.
Northern Trust MSCI US
PIMCO Stocks Plus
T. Rowe Price US Large Cap

International Stocks

Artisan Partners International
Baillie Gifford
Mondrian Investment Partners
Northern Trust MSCI World Ex-US
Research Affiliates

Infrastructure

IFM Global Infrastructure

Private Credit

AlpInvest FC Credit Partners VII
Angelo Gordon VII
Carlyle CPC V, L.P.
Carlyle TCG BDC II
Colony Distressed Credit I, L.P.
Colony Distressed Credit III, L.P.
CVI Credit Value Fund III
EQT Credit Opportunities III
GSO European Senior Debt Fund, L.P.
KKR Mezzanine Partners
Lone Star Fund IV
Oaktree Opportunities IX, L.P.
OHA Strategic Credit Fund II
TSSP Adjacent Opportunities

Private Equity

Avista Capital IV
Blackstone IV
Cinven VII
Gridiron Capital IV
Hamilton Lane Advisors LLC
Hamilton Lane VI
Hamilton Lane IX
Hamilton Lane Secondary IV
HGGC Fund IV
H.I.G. Growth Buyouts & Equity III
Horsley Bridge XI
Insight Partners XI
K4 Private Investors L.P.
Kelso Investment Associates X, L.P.
Landmark Equity, XIV, L.P.
New Mountain Partners III
Platinum Equity Small Cap
Platinum Equity V
SK Capital Partners V-A, L.P.
Thomas H. Lee Equity Fund VIII
TPG Partners VIII
Verdane Capital X
WP Equity Partners, L.P.
WP Private Equity VIII, L.P.
WP Private Equity X, L.P.
WP Private Equity, XII L.P.
ZMC Partners III

Real Estate Investments

FCERA Realty Group, LLC
Gerding Edlen Green Cities III, L.P.
Invesco Core Real Estate
Invesco US Value-Add Fund V, L.P.
Kennedy Wilson Real Estate Fund V, L.P.
Kennedy Wilson Real Estate Fund VI, L.P.

Hedge Fund

GCM Better Futures Fund

Cash Overlay

Parametric

Schedule of Commissions

Schedule of Fees

For the Fiscal Year Ended June 30, 2020, with Comparative Totals

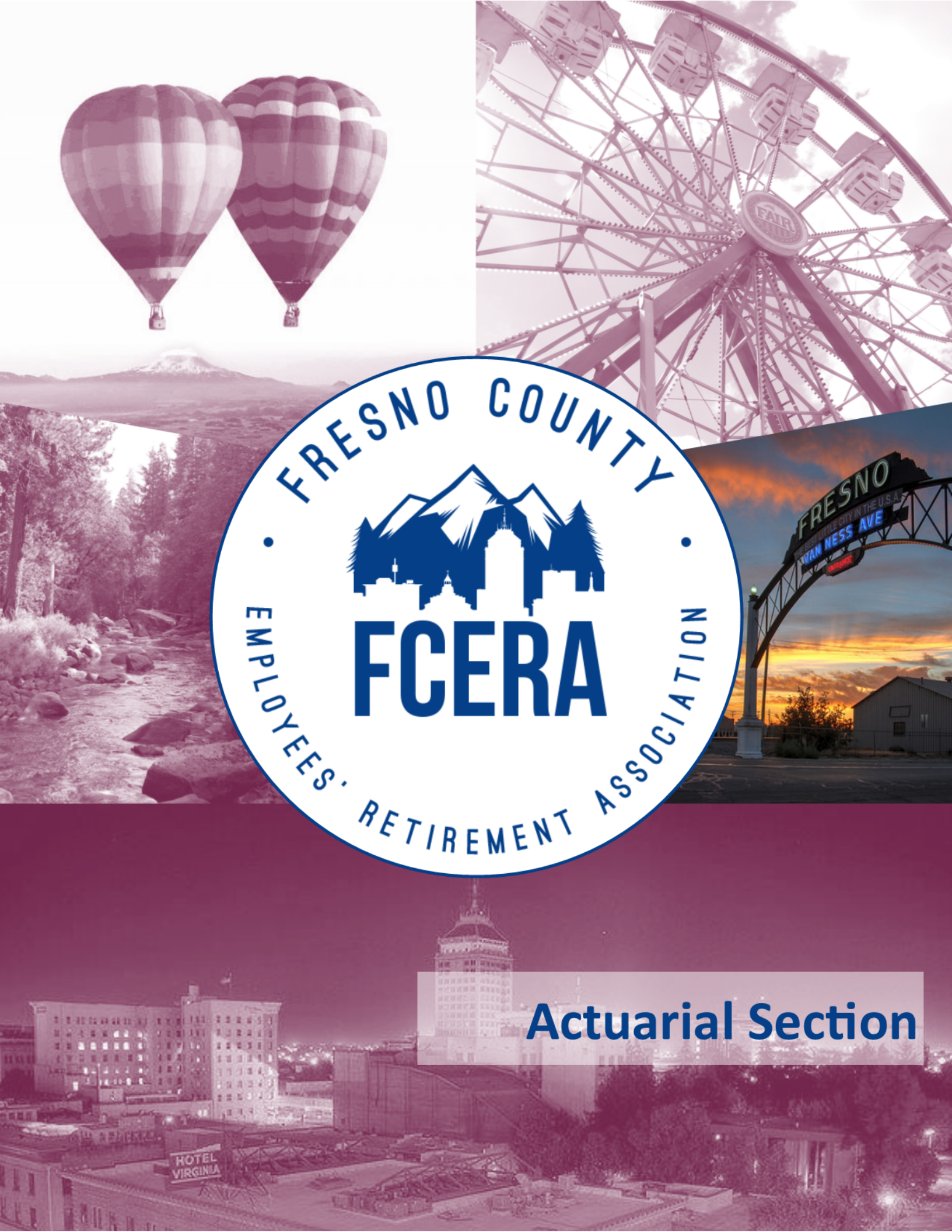
	2020	2019
Investment Managers' Fees		
Domestic Equity Managers:		
Northern Trust S&P 500 Index fund	\$ 7,862	\$ -
Pimco Stocks Plus Small AR	177,826	353,401
State Street Global Advisors	21,296	51,395
Systematic Financial Management	-	143,053
T. Rowe Price US Large Cap	295,520	295,855
Waddell & Reed Investment Management	-	230,821
Total Domestic Equity Managers	502,504	1,074,525
International Equity Managers:		
Artisan International	1,233,269	990,921
Baillie Gifford	1,186,871	765,910
Mondrian Investment Partners	1,774,226	2,285,415
Northern Trust EAFE Index Fund	16,324	-
Research Affiliates	270,410	271,945
Total International Equity Managers	4,481,100	4,314,191
Domestic Fixed Income Managers:		
Brandywine Global	254,290	266,595
Eaton Vance	1,212,217	1,553,864
Loomis Sayles	640,155	778,716
Northern Trust TIPS Index Fund	4,907	-
Pimco EMD	856,518	993,649
RBC Access Capital	148,188	100,468
State Street TIPS Index Fund	34,348	70,689
Western Asset Management Company	523,426	611,276
Total Domestic Fixed Income Managers	3,674,049	4,375,257
Private Market Managers:		
Private Equity	4,348,495	2,849,670
Real Estate	2,278,829	2,573,860
Hedge Funds	3,553,350	5,256,361
Commodities	101,407	816,182
Infrastructure	1,248,858	1,108,772
Private Credit	5,256,244	4,663,997
Total Private Market Managers	16,787,183	17,268,842
Total Investment Managers' Fees	25,444,836	27,032,815
Cash Overlay Manager:		
Parametric	207,046	197,995
Total Cash Overlay Managers	207,046	197,995
Other Investment Expenses		
Securities Lending Management Fees & Rebates	1,009,916	568,773
Due Diligence Travel	-	7,887
Custodian Service Fees	58,185	118,000
Actuarial Valuation Fees	69,000	113,000
Consulting and Legal Fees	520,736	487,684
Total Other Investment Expenses	\$ 1,657,837	\$ 1,295,344

Schedule of Commissions

Schedule of Commissions

As of June 30, 2020

Brokerage Firm	Rank	Number of Shares Traded	Total Commissions	Commissions Per Share	Percentage of Commissions
MORGAN STANLEY AND CO., LLC	1	613,763,376	\$ 81,794	\$ 0.00013	16.66%
MERRILL LYNCH INTERNATIONAL LIMITED	2	11,964,353,099	73,717	0.00001	15.02%
INSTINET INVESTMENT SERVICES LIMITE	3	4,827,513	24,084	0.00499	4.91%
HSBC SECURITIES (USA) INC.	4	2,538,384,510	21,660	0.00001	4.41%
J.P. MORGAN SECURITIES LLC	5	58,199,601	16,585	0.00028	3.38%
GOLDMAN, SACHS AND CO.	6	4,098,940,319	15,867	0.00000	3.23%
SOCIETE GENERALE LONDON BRANCH	7	407,171	14,212	0.03490	2.90%
J.P. MORGAN SECURITIES PLC	8	35,702,619,057	12,530	0.00000	2.55%
INSTINET EUROPE LIMITED	9	2,327,894	11,902	0.00511	2.42%
CITIGROUP GLOBAL MARKETS LIMITED	10	154,223,760	10,610	0.00007	2.16%
CREDIT SUISSE SECURITIES(EUROPE)LTD	11	1,205,368	10,009	0.00830	2.04%
NATIONAL FINANCIAL SERVICES LLC	12	1,296,211	8,782	0.00678	1.79%
BANK OF AMERICA CORPORATION	13	39,671,663	8,355	0.00021	1.70%
CLSA LIMITED	14	904,197	7,949	0.00879	1.62%
CITIGROUP GLOBAL MARKETS INC	15	2,633,406	7,481	0.00284	1.52%
JEFFERIES LLC.	16	24,476,839	7,116	0.00029	1.45%
EXANE S.A.	17	492,636	7,045	0.01430	1.44%
PERSHING SECURITIES LIMITED	18	265,572	6,686	0.02517	1.36%
UBS AG LONDON BRANCH	19	1,123,085	6,613	0.00589	1.35%
SG AMERICAS SECURITIES LLC	20	2,227,810	6,091	0.00273	1.24%
Top 20 Firms by Commission Dollars		55,212,343,087	\$ 359,088	\$ 0.12080	73.15%
All other Brokerage Firms		482,704,143,130	\$ 131,823	0.00000	26.85%
Total Brokerage Commissions		537,916,486,217	\$ 490,911	\$ 0.12080	100.00%



Actuarial Section



Paul Angelo, FSA, MAAA, FCA, EA
Senior Vice President & Actuary
T 415.263.8273
pangelo@segalco.com
Andy Yeung, ASA, MAAA, FCA, EA
Vice President & Actuary
T 415.263.8283
ayeung@segalco.com

180 Howard Street,
Suite 1100
San Francisco, CA 94105-6147
segalco.com

September 2, 2020

Board of Retirement
Fresno County Employees' Retirement Association
7772 N Palm Ave
Fresno, CA 93711

**Re: June 30, 2019 Actuarial Valuation for the Fresno County Employees'
Retirement Association**

Dear Members of the Board:

Segal prepared the June 30, 2019 actuarial valuation of the Fresno County Employees' Retirement Association (FCERA) for funding purposes. We certify that the valuation was performed in accordance with generally accepted actuarial principles and practices and FCERA's funding policy that was originally approved by the Board in 2015 and reaffirmed by the Board in 2017. In particular, it is our understanding that the assumptions and methods used for funding purposes meet the parameters set by Actuarial Standards of Practice (ASOPs).

Actuarial valuations are performed on an annual basis with the last valuation completed as of June 30, 2019. The actuarial calculations presented in the valuation report have been made on a basis consistent with our understanding of the historical funding methods used in determination of the liability for statutory retirement benefits.

The June 30, 2019 actuarial valuation is based on the plan of benefits verified by FCERA and on participant and financial data provided by FCERA. Segal conducted an examination of these data elements and found them to be reasonably consistent and comparable with data used for other purposes. However, the scope of this examination does not qualify as an audit. Summaries of the employee data used in performing the actuarial valuations over the past several years are provided in our valuation report.

We did not audit the Association's financial statements. For actuarial valuation purposes, Retirement Plan assets are valued at actuarial value. Under this method, the assets used to determine employer contribution rates take into account market value by recognizing the differences between the total return at market value and the expected investment return over a five-year period. The deferred gains and losses are further adjusted, if necessary, so that the actuarial value of assets will stay within 30% of the market value of assets.

One of the general goals of an actuarial valuation is to establish contribution rates, which, over time, will remain level as a percentage of payroll unless Plan benefit provisions are changed. Actuarial funding is based on the Entry Age Cost Method. Under this method, the employer contribution rate provides for current cost (Normal Cost) plus a level percentage of payroll to amortize any unfunded actuarial accrued liability (UAAL). The UAAL is amortized as a level percentage of payroll over a declining period with 14 years remaining for the outstanding balance of the UAAL established as of the June 30, 2003 valuation and a separate 15-year period is used for new UAAL established on each subsequent valuation as a result of actuarial gains/losses or changes in actuarial assumptions. Any increase in UAAL due to new benefit improvements is also amortized over 15 years. The progress being made towards meeting the funding objective through June 30, 2019 is illustrated in the Schedule of Funding Progress.

Note number 2 to the Financial Statements and the Required Supplemental Information (RSI) included in the Financial Section were prepared by the Association based on the results of the Governmental Accounting Standards (GAS) Statement No. 67 actuarial valuation as of June 30, 2019 prepared by Segal. For the Financial Section of the Comprehensive Annual Financial Report, Segal provided the Schedule of Change in Net Pension Liability and Schedule of Employer Contributions as shown in the RSI. A listing of supporting schedules Segal prepared for inclusion in the Actuarial and Statistical Sections of the Association's CAFR is provided below. These schedules were prepared based on the results of the actuarial valuation as of June 30, 2019 for funding purposes.

1. Schedule of Funded Liabilities by Type;
2. Actuarial Analysis of Financial Experience;
3. Schedule of Funding Progress;
4. Average Benefit Payments; and
5. Years of Life Expectancy after Service and Disability Retirement.

The valuation assumptions included in the Actuarial Section were adopted by the Retirement Board based on the July 1, 2015 through June 30, 2018 Experience Analysis or in conjunction with the June 30, 2019 actuarial valuation. Note that the investment return assumption was developed without taking into consideration the impact of the Board's policy of utilizing excess earnings to provide contribution offsets and additional settlement and non-statutory benefits. It is our opinion that the assumptions used in the June 30, 2019 valuation produce results, which, in aggregate, reflect the future experience of the Plan. An experience analysis is performed every three years and the next experience analysis is due to be performed as of June 30, 2021 and any changes in assumptions that result will be reflected in the June 30, 2022 valuation.

In the June 30, 2019 valuation, the ratio of the valuation assets to actuarial accrued liabilities (funded percentage) increased from 81.5% to 81.7%. The aggregate employer rate has increased from 55.08% of payroll to 60.84% of payroll while the aggregate member rate has decreased from 9.21% to 9.18% of payroll.

Under the actuarial value of assets method, the total unrecognized investment losses as of June 30, 2019 are \$36.7 million. These investment losses will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years, and will offset any investment gains that may occur after June 30, 2019. If the Association earns the assumed net rate of investment return of 7.00% per year on a market value basis, that will result in investment losses on the valuation value of assets in the next few years. This means that, if the actual market return is equal to the assumed 7.00% rate and all other actuarial assumptions are met, the contribution requirements would increase in the next few years.

The current unrecognized investment losses represent about 0.7% of the market value of assets. Unless offset by future investments gains or other favorable experience, the recognition of the \$36.7 million in past market losses is expected to have an impact on the Association's future funded ratio and the aggregate employer contributions. This potential impact may be illustrated as follows:

- If the deferred losses were recognized immediately in the valuation value of assets, the funded percentage would decrease from 81.7% to 81.1%.
- If the deferred losses were recognized immediately in the actuarial value of assets, the aggregate employer contribution rate would increase from 60.84% of payroll to 61.54% of payroll.

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

Sincerely,



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



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

AW/hy
Enclosures

Summary of Actuarial Assumptions and Methods continued

The Entry Age Normal Actuarial Cost Method was used in conjunction with the following actuarial assumptions. The Unfunded Actuarial Accrued Liability (UAAL) established as of the June 30, 2003 valuation is being amortized over a declining 30-year period with 14 years remaining as of June 30, 2019. Any new UAAL established on each subsequent valuation after June 30, 2003, as a result of actuarial gains or losses and changes in actuarial assumptions is amortized over a separate 15-year declining period. The increase in UAAL due to benefit improvements is amortized over 30 years for periods ending through June 30, 2011, and is 15 years for all periods thereafter. The following interest rate assumptions along with the post retirement and pre-retirement demographic experiences are based on the plan's actuarial valuation as of June 30, 2019, which determines the employer and membership contribution rates. The actuarial valuation report as of June 30, 2019, was approved and adopted by the Fresno County Employees' Retirement Association (FCERA) Board of Retirement (the Board) on December 19, 2019.

- | | |
|---|---|
| 1. Investment Rate of Return | 7.00% per annum |
| 2. Interest Credited to Employee Accounts | Nominal rate of 3.00% per annum, compounded semiannually |
| 3. Inflation | 3.00% per annum |
| 4. Salary Scale: | |
| <ul style="list-style-type: none"> • General Members | Payroll growth rate is 3.25% (merit ranges from 1.10% to 8.50%; plus 2.75% inflation plus 0.50% "across the board" salary increase) |
| <ul style="list-style-type: none"> • Safety Members | Payroll growth rate is 3.25% (merit ranges from 1.10% to 8.50%; plus 2.75% inflation plus 0.50% "across the board" salary increase) |
| 5. Asset Valuation | Smoothed market value |
| 6. Spouses and Dependents | 70% of male active members and 50% of female active members assumed married at retirement, with wives assumed three years younger than husbands |
| 7. Rates of Termination of Employment | 0.00% to 17.00%, depending on age, gender, and service classification |
| 8. Years of Life Expectancy After Retirement: | |
| <ul style="list-style-type: none"> • General Members | Pub-2010 General Healthy Retiree Amount Weighted Above-Median Mortality Table times 110%, projected generationally with two-dimensional mortality improvement scale MP-2018 |

Summary of Actuarial Assumptions and Methods continued

• Safety Members	Pub-2010 Safety Healthy Retiree Amount Weighted Above-Median Mortality Table times 110%, projected generationally with two-dimensional mortality improvement scale MP-2018
9. Years of Life Expectancy After Disability	
• General Members	Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Table, projected generationally with the two-dimensional mortality improvement scale MP-2018
• Safety Members	Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table, projected generationally with the two-dimensional mortality improvement scale MP-2018
10. Life Expectancy After Retirement for Employee Contribution Rate Purposes:	
• General Members	Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table times 110%, projected 30 years with two-dimensional mortality improvement scale MP-2018, weighted 35% male and 65% female
• Safety Member	Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table times 110%, projected 30 years with two-dimensional mortality improvement scale MP-2018, weighted 80% male and 20% female
11. Reciprocity Assumption	20% of General and 30% of Safety members who terminate with less than 5 years of service and 30% of General and 50% of Safety members who terminate with 5 or more years of service are assumed to enter a reciprocal system
12. Vested Terminations	Varies by age and years of service
13. Service and Disability Retirements	Varies by tier of membership and by age

Summary of Actuarial Assumptions and Methods continued

14. Gains & Losses

15 years (declining) for UAAL established as of June 30, 2003 plus 14 years (declining) for UAAL and change in actuarial assumptions established on each subsequent valuation. The increase in UAAL due to benefit improvements is amortized over 30 years for periods ended June 30, 2010 and 15 years for all periods thereafter

Note: Information compiled from Actuarial Report prepared by Segal Consulting as of June 30, 2019. Please refer to page 51 for the latest GASB 67 Valuation Assumptions and page 54 for the latest actuarial valuation methods applied during this fiscal period, July 1, 2019 to June 30, 2020.

Active Member Data

Schedule of Active Member Valuation Data

Valuation Date	Plan Type	Number	Annual Payroll (in thousands)	Average Monthly Salary	% Increase in Average Salary
6/30/2019	General	6,677	\$ 380,052	4,743	3.0%
	Safety	999	77,707	6,482	2.0%
	Total	7,676	\$ 457,759	4,970	3.0%
6/30/2018	General	6,520	\$ 360,143	4,603	2.8%
	Safety	938	71,536	6,355	3.0%
	Total	7,458	\$ 431,679	4,823	2.8%
6/30/2017	General	6,421	\$ 344,809	4,475	1.9%
	Safety	932	68,951	6,165	2.0%
	Total	7,353	\$ 413,760	4,689	2.0%
6/30/2016	General	6,377	\$ 335,815	4,388	0.5%
	Safety	920	66,719	6,043	0.0%
	Total	7,297	\$ 402,534	4,597	0.6%
6/30/2015	General	6,159	\$ 322,735	4,367	2.7%
	Safety	842	61,040	6,041	-0.6%
	Total	7,001	\$ 383,775	4,568	2.1%
6/30/2014	General	6,130	\$ 312,663	4,250	-0.8%
	Safety	838	61,111	6,077	1.6%
	Total	6,968	\$ 373,774	4,470	-0.5%
6/30/2013 ²	General	6,020	\$ 309,356	4,282	-1.4%
	Safety	846	60,723	5,981	-4.3%
	Total	6,866	\$ 370,079	4,492	-1.6%
6/30/2012 ¹	General	5,900	\$ 307,416	4,342	-8.1%
	Safety	777	58,180	6,240	-6.8%
	Total	6,677	\$ 365,596	4,563	-7.2%
6/30/2011	General	5,996	\$ 337,646	4,693	0.8%
	Safety	767	61,330	6,663	-1.8%
	Total	6,763	\$ 398,976	4,916	0.2%
6/30/2010	General	6,134	\$ 342,741	4,656	3.1%
	Safety	812	66,120	6,786	4.6%
	Total	6,946	\$ 408,861	4,905	3.2%

¹ New benefit tier effective June 2012.

² New benefit tier effective January 2013.

Please see Note 1 Description of the Plan - Benefit Provisions pages 27 to 29.

Source: Segal Consulting Actuarial Valuation Reports dated June 30, 2010 through 2019.

Retiree Payroll & Funding Progress

Schedule of Retirees and Beneficiaries Added to and Removed From Payroll
(Dollars in Thousands)

Fiscal Year	Number at Beginning of Fiscal Year	Number Added to Payroll	Allowances Added	Number Removed From Payroll	Allowances Removed	Number at End of Fiscal Year	Annual Allowance (in thousands)	Percent Increase in Annual Allowance	Average Annual Allowance (in thousands)	Percent Increase/ (Decrease) in Average Annual Allowance
2019-20	7,656	386	\$ 6,777	201	\$ 3,315	7,841	\$ 292,671	5.55%	37	3.06%
2018-19	7,448	397	7,043	189	2,821	7,656	277,292	6.32%	36	3.43%
2017-18	7,240	399	8,219	191	2,835	7,448	260,806	5.74%	35	2.79%
2016-17	7,035	373	7,394	168	2,213	7,240	246,649	3.66%	34	0.72%
2015-16	6,843	339	7,606	147	2,064	7,035	237,950	3.88%	34	1.05%
2014-15	6,626	367	7,972	150	1,871	6,843	229,053	3.11%	33	-0.16%
2013-14	6,403	368	7,584	145	1,885	6,626	222,155	5.46%	34	1.91%
2012-13	6,148	397	8,249	142	2,132	6,403	210,654	8.97%	33	4.63%
2011-12	5,769	525	10,794	146	2,033	6,148	193,320	7.36%	31	0.74%
2010-11	5,509	414	9,022	154	1,827	5,769	180,063	6.33%	31	1.54%

¹ Number Added to Payroll in Year 2011-12 has been revised to tie to the Number at End of Fiscal Year and to reconcile with the Schedule of Membership reported in the Notes to the Financial Section in the 2011-2012 CAFR.

Source: Schedule provided by FCERA.

Schedule of Funding Progress
(Dollars in Thousands)

Actuarial Valuation Date	Valuation Value of Assets (VVA) (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c) ¹	UAAL as a Percentage of Covered Payroll [(b) - (a)]/(c)
2018-19	\$ 4,971,225	\$ 6,086,654	1,115,429	81.7%	\$ 457,759	243.7%
2017-18	4,802,958	5,893,909	1,090,951	81.5%	431,678	252.7%
2016-17	4,529,508	5,643,444	1,113,936	80.3%	413,760	269.2%
2015-16	4,278,001	5,472,149	1,194,148	78.2%	402,535	296.7%
2014-15	4,092,647	5,074,333	981,686	80.7%	383,775	255.8%
2013-14	3,824,221	4,876,754	1,052,533	78.4%	373,774	281.6%
2012-13	3,518,982	4,694,780	1,175,798	75.0%	370,079	317.7%
2011-12	3,305,045	4,345,402	1,040,357	76.1%	365,596	284.6%
2010-11	3,114,483	4,237,961	1,123,478	73.5%	398,976	281.6%
2009-10	2,983,044	4,092,464	1,109,420	72.9%	408,861	271.3%

Source: Schedule provided by Segal Consulting.

¹ Covered payroll represents compensation earnable and pensionable compensation. Only compensation earnable and pensionable compensation that would possibly go into the determination of retirement benefits are included.

Actuarial Analysis

Schedule of Analysis of Financial Experience

(Dollars in Thousands)

Changes to UAAL	2019
1 Unfunded actuarial accrued liability at beginning of year	\$ 1,090,951
2 Total Normal Cost at middle of year ¹	111,809
3 Expected administrative expenses	4,752
4 Expected employer and member contributions	(281,114)
5 Interest	71,215
6 Expected unfunded actuarial accrued liability at end of year	997,613
7 Changes due to:	
a. Investment return less than expected (after "smoothing")	147,180
b. Actual contributions less than expected ²	15,681
c. Individual salary increases less than expected	(5,094)
d. Additional 0.5% COLA banked in excess of the maximum 3% COLA granted on 4/1/2019 ³	16,426
e. Other experience loss	4,488
f. Changes in actuarial assumptions	(60,865)
g. Total Changes	117,816
Unfunded Actuarial Accrued Liability at end of year	\$ 1,115,429

¹ Excludes administration expense load.

² Includes contributions toward administration expenses.

³ Primarily as a result of the first year of the three-year phase-in of the contribution rate impact of the assumption changes determined in the June 30, 2016 valuation, as paid in 2017-2018.

Changes to UAAL	2018
1 Unfunded actuarial accrued liability at beginning of year	\$ 1,113,936
2 Total Normal Cost payable at middle of year ¹	111,958
3 Expected administrative expenses	4,550
4 Expected employer and member contributions ²	(270,584)
5 Interest (full year on (1) plus half year on (2)+(3)+(4))	74,352
6 Expected unfunded actuarial accrued liability at end of year	1,034,212
7 Actuarial (gain)/loss due to all changes:	
<u>Experience (gain)/loss</u>	
a. Loss from investment return on valuation value of assets (6.49%) less than assumed	23,013
b. Loss from actual contributions less than expected ³	22,325
c. Gain from lower than expected salary increases	(3,346)
e. Other experience losses	14,747
Other changes	56,739
f. Change in actuarial assumptions	-
g. Subtotal	-
Actual unfunded actuarial accrued liability at end of year (6) + (7e)	\$ 1,090,951

¹ Excludes administration expense load.

² Includes contributions toward administrative expenses.

³ Contribution loss from one-year delay in implementing higher contribution rates recommended in June 30, 2016 valuation.

Source: Information for 2018 and 2019 schedules provided by Actuary, Segal Consulting.

Funded Liabilities by Type

Schedule of Funded Liabilities by Type

(Dollars in Thousands)

Actuarial Accrued Liabilities (AAL) for					Portion of Accrued Liabilities Covered by Reported Assets		
Valuation Date	(1) Active Member Contributions(a)	(2) Vested, Retirants and Beneficiaries	(3) Active Members Employer Financed	Valuation Value of Assets (VVA)	(1) Active Member Contributions	(2) Vested, Retirants and Beneficiaries	(3) Active Members Employer Financed
June 30, 2019	\$ 460,516	\$ 4,116,936	\$ 1,509,202	\$ 4,971,225	100%	100%	26%
June 30, 2018	\$ 460,384	\$ 3,992,258	\$ 1,441,267	\$ 4,802,958	100%	100%	24%
June 30, 2017	460,664	3,764,617	1,418,163	4,529,508	100%	100%	21%
June 30, 2016	444,552	3,609,392	1,418,205	4,278,001	100%	100%	16%
June 30, 2015	427,130	3,347,346	1,299,857	4,092,647	100%	100%	24%
June 30, 2014	412,209	3,142,414	1,322,131	3,824,221	100%	100%	20%
June 30, 2013	398,888	2,961,186	1,334,706	3,518,982	100%	100%	12%
June 30, 2012	385,537	2,731,606	1,228,259	3,305,045	100%	100%	15%
June 30, 2011	379,029	2,486,960	1,371,972	3,114,483	100%	100%	18%
June 30, 2010	370,623	2,365,220	1,356,621	2,983,044	100%	100%	18%

(a) Equal to the total balance (in market value) of the reserve account maintained for member contributions.

Source: Information provided by Segal Consulting.

Probability of Occurrence

Probabilities of Separation from Active Service

(Current Assumptions)

Age	Total Terminations ¹	Ordinary Death ²	Total Disability ³
General Members – Male			
20	0.05750	0.00000	0.00010
30	0.05300	0.00030	0.00020
40	0.03920	0.00040	0.00120
50	0.03440	0.00110	0.00250
60	0.03100	0.00350	0.00680
General Members – Female			
20	0.05750	0.00000	0.00010
30	0.05300	0.00020	0.00020
40	0.03920	0.00030	0.00100
50	0.03440	0.00080	0.00170
60	0.03100	0.00190	0.00330
Safety Members – Male			
20	0.03500	0.00000	0.00050
30	0.02900	0.00030	0.00240
40	0.01850	0.00040	0.00560
50	0.01500	0.00110	0.00760
60	0.00600	0.00350	0.03200
Safety Members – Female			
20	0.03500	0.00000	0.00050
30	0.02900	0.00020	0.00240
40	0.01850	0.00030	0.00560
50	0.01500	0.00080	0.00760
60	0.00600	0.00190	0.03200

¹ No termination is assumed after a member is first assumed to retire.

² All pre-retirement deaths are assumed to be non-service connected.

³ 50% of General disabilities are assumed to be service connected (duty) disabilities. The other 50% are assumed to be non-service connected (ordinary) disabilities. 100% of Safety disabilities are assumed to be service connected (duty) disabilities.

Note: Information compiled from Actuarial Report prepared by Segal Consulting dated June 30, 2019. Assumptions for separation from active service are based on combined tiers with the exception of service retirement.

Probability of Occurrence continued

Probabilities of Separation from Active Service
(Current assumptions)

Age	Service Retirement
General Tier 1 - Male	
50	0.05000
55	0.08000
60	0.16000
65	0.40000
70	0.35000
General Tier 1 - Female	
50	0.15000
55	0.16000
60	0.24000
65	0.60000
70	0.52500
General Tier 2 - Male and Female	
50	0.03000
55	0.08400
60	0.15000
65	0.35000
70	0.70000
General Tier 3 - Male and Female	
50	0.03600
55	0.10000
60	0.16000
65	0.35000
70	0.60000
General Tier 4 - Male and Female	
50	0.02000
55	0.04000
60	0.09000
65	0.23000
70	0.60000
General Tier 5 - Male and Female	
50	0.00000
55	0.03500
60	0.08500
65	0.22000
70	0.60000
Safety Tiers 1 and 2 - Male and Female	
50	0.05000
55	0.40000
60	0.30000
65	1.00000
Safety Tiers 4 and 5 - Male and Female	
50	0.04000
55	0.18000
60	0.40000
65	1.00000

Note: Information compiled from Actuarial Report prepared by Segal Consulting dated June 30, 2019. Assumptions for separation from active service are based on combined tiers with the exception of service retirement.

Proportions of Withdrawals from Active Service

Proportion of Withdrawals from Active Service

(Current assumptions)

Years of Service	Refunds	Deferred Vested
0	60.00%	40.00%
1	60.00%	40.00%
2	60.00%	40.00%
3	60.00%	40.00%
4	60.00%	40.00%
5	30.00%	70.00%
6	30.00%	70.00%
7	30.00%	70.00%
8	30.00%	70.00%
9	30.00%	70.00%
10	25.00%	75.00%
11	25.00%	75.00%
12	25.00%	75.00%
13	25.00%	75.00%
14	25.00%	75.00%
15	15.00%	85.00%
16	15.00%	85.00%
17	15.00%	85.00%
18	15.00%	85.00%
19	15.00%	85.00%
20 or more	10.00%	90.00%

Note: Probability of refunds by age are not available. Refunds are more closely associated with years of service. Information compiled from Actuarial Report prepared by Segal Consulting dated June 30, 2019.

Years of Life Expectancy after Service Retirement

Years of Life Expectancy after Service Retirement

(Current Assumptions)

Age	Years of Life Expectancy
General Members - Male	
50	35.00
60	25.30
70	16.60
80	9.10
90	4.10
100	1.70
110	0.90
General Members - Female	
50	37.40
60	27.60
70	18.40
80	10.40
90	4.80
100	2.00
110	0.90
Safety Members - Male	
50	36.50
60	26.40
70	17.40
80	9.80
90	4.60
100	1.90
110	1.00
Safety Members - Female	
50	37.70
60	27.60
70	18.50
80	10.70
90	5.20
100	2.20
110	1.10

Years of Life Expectancy after Disability Retirement

Years of Life Expectancy after Disability Retirement

(Current assumptions)

Age	Years of Life Expectancy	
General Members	Male	Female
20	52.60	56.00
30	42.80	45.60
40	33.70	36.30
50	25.60	28.20
60	19.00	21.60
70	13.30	15.10
80	8.00	8.90
90	4.10	4.80
100	1.90	2.20
110	1.00	1.10
Safety Members	Male	Female
20	64.20	66.70
30	53.80	56.10
40	43.70	45.80
50	33.70	35.80
60	24.10	26.30
70	15.70	17.90
80	8.80	10.40
90	4.10	5.10
100	1.90	2.20
110	1.00	1.10

Note: Information provided by Segal Consulting.

Summary of Major Plan Provisions

1. ELIGIBILITY

First day of pay period following date of employment in an eligible position.

2. DEFINITION OF SALARY

- Tiers 1 and 2
Highest one-year average compensation earnable.
- Tiers 3 and 4
Highest three-year average compensation earnable.
- Tier 5
Highest consecutive three years of pensionable compensation.

3. SERVICE RETIREMENT

Benefit Level

- Tier 1
 - General offers 2.5% at age 55, California Government Code § 31676.12, 31676.14 and 31627.
 - Safety offers 2.5% at age 50, California Government Code § 31664 and 31627.
- Tier 2
 - General offers 2% at age 55, California Government Code § 31676.16.
 - Safety offers 2.29% at age 50, California Government Code § 31664.2.
- Tier 3
 - General offers 2% at age 55, California Government Code § 31676.15.
- Tier 4
 - General offers 1.49% at age 55, California Government Code § 31676.1.
 - Safety offers 2% at age 50, California Government Code § 31664.
- Tier 5
 - General offers 1% at age 52, California Government Code § 7522.20(a).
 - Safety offers 2% at age 50, California Government Code § 7522.25(d).

Summary of Major Plan Provisions continued

Eligibility

- Early Retirement
 - Tiers 1, 2, 3, and 4 - Age 50 with 10 years of service, or any age with 30 years of service for General, or any age with 20 years of service for Safety.
 - Tier 5 – Age 52 with 5 years of service for General or age 50 with 5 years of service for Safety
- Benefit Adjustments
 - General and Safety Tier 1
 - Reduced for retirement before age 55 and age 50, respectively.
 - Increased for retirement after age 55 and age 50, respectively.
 - Maximum benefit for retirement at or after age 60 and age 55, respectively.
 - General Tiers 2 and 3
 - Reduced for retirement before age 55.
 - Increased for retirement after age 55.
 - Maximum benefit for retirement at or after age 62 or age 65, respectively.
 - Safety Tier 2
 - Reduced for retirement before age 50.
 - Increased for retirement after age 50.
 - Maximum benefit for retirement at or after age 55.
 - General and Safety Tier 4
 - Reduced for retirement before age 65, General only.
 - Increased for retirement after age 65 and age 55, respectively.
 - Maximum benefit for retirement at or after age 65 or age 55, respectively.
 - General and Safety Tier 5
 - Reduced for retirement before age 62.
 - Maximum benefit for retirement at or after age 67 or age 57, respectively.

4. DISABILITY RETIREMENT

- Non-service connected

1.5% for General Tiers 1, 2, 4, and 5; 1.8% General Tier 3; and 1.8% for Safety of final average salary per year of service, with a maximum of 33.33% if projected service is used (age 65 for General Tiers 1, 2, 4, and 5; age 65 for Tier 3; age 55 for Safety), or service retirement benefit (if eligible).

Summary of Major Plan Provisions Continued

- Service-connected

Greater of 50% of final average salary or service retirement benefit (if eligible).

5. DEATH BEFORE RETIREMENT

- Refund of contributions with interest plus 1/12th of monthly salary per year of service, maximum of six months' salary.
- If eligible for non-service connected disability or service retirement, eligible beneficiary will receive 60% of member's accrued allowance.
- If service-connected, beneficiary will receive 50% of final compensation or 100% of service retirement, if eligible.

6. DEATH AFTER RETIREMENT

- Service retirement or non-service connected disability, eligible beneficiary will receive 60% of member's allowance.
- Service disability, eligible beneficiary will receive 100% of member's allowance.

7. VESTING

- After five years of service.
- Must leave contributions on deposit.

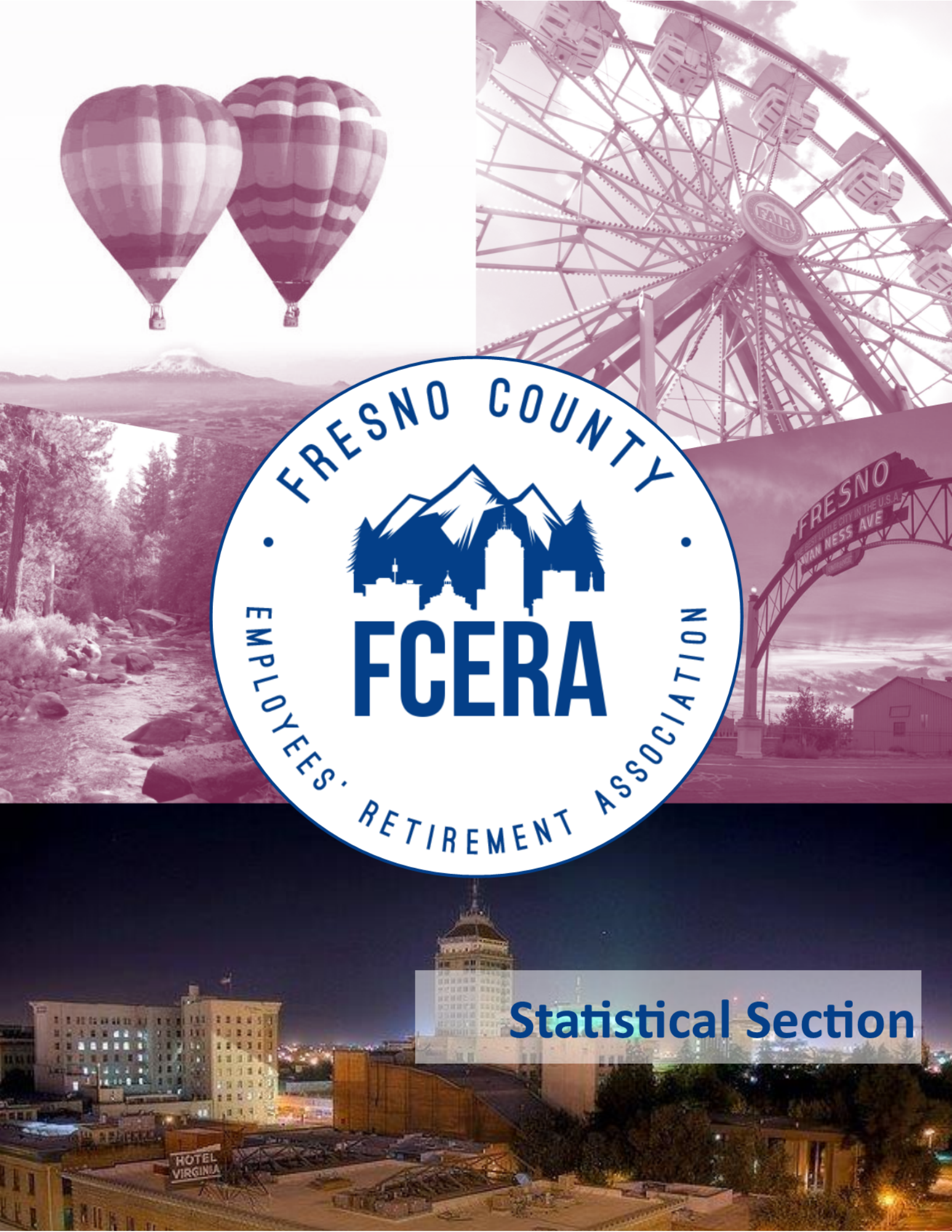
8. MEMBERS' CONTRIBUTIONS

- Tiers 1, 2, 3, and 4 - Based on entry age.
- Tier 5 – Flat rate as determined by valuation.

9. COST OF LIVING

Maximum 3% COLA for members enrolled in Tiers 1, 2, and 3. No COLA for members enrolled in Tier 4 or 5.

Note: Information for the Summary of Major Plan Provisions was compiled from the Actuarial Report prepared by Segal Consulting dated June 30, 2019.



Statistical Section

Statistical Information

STATISTICAL SECTION INFORMATION

This section contains additional comparative information in order to provide a more detailed understanding of the financial statements, note disclosures and supplementary information. The financial trend information displayed on the following pages is intended to show how FCERA's financial position has changed over a period of time, including changes of plan net position, revenues and expenses, retiree benefit information and membership history.

The Table of Changes in Fiduciary Net Position details the plan's additions and deductions by source and plan's net change over the past 5 years.

Several schedules of Retired Members illustrate benefits paid by retirement type, service, disability and survivors, for both general and safety (law enforcement) classifications and numeric counts of retirees by classification. The 10-years of Average Annual Benefit schedules further breaks down retiree counts and benefit payments by Benefit Tiers and by years of benefit service. The Retired Members by Type of Benefit provides additional information regarding the membership type and benefit option of retirees.

The Schedule of Active and Deferred Members provides membership counts by classification, active vested, active non-vested and deferred status. Two schedules of membership by participating employer are provided that compares current active membership to membership 10-years prior, along with a schedule of employer contribution rates over the past 10-years by Benefit Tier.

The last schedule provides 10-years of Benefits and Refund information by benefit type and classification, including active employee death benefits.

Combined these schedules show trends in membership and benefit payments, allowing the reader to have a more complete picture of the activity over time.

Fiduciary Net Position

Table of Changes in Fiduciary Net Position

Last Ten Fiscal Years

(Dollars in Thousands)

	2020	2019	2018	2017	2016
Additions					
Employer Contributions	\$ 247,474	\$ 225,492	\$ 225,492	\$ 198,472	\$ 191,529
Member Contributions	41,761	40,463	40,463	36,259	35,212
Net Investment Income/(Loss)	13,097	254,801	254,801	417,681	(4,258)
Total Additions	302,332	520,756	520,756	652,412	222,483
Deductions ¹					
Total Benefit Expenses	\$ 292,775	\$ 277,417	\$ 247,491	\$ 247,491	\$ 238,028
Refunds	2,217	2,615	2,356	2,356	2,203
Administrative Expenses	6,422	5,981	4,762	4,762	4,814
Other	130	107	77	77	61
Total Deductions	301,544	286,120	254,686	254,686	245,106
Change in Fiduciary Net Position	\$ 788	\$ 234,636	\$ 266,070	\$ 397,726	\$ (22,623)

	2015	2014	2013	2012	2011
Additions					
Employer Contributions	\$ 184,213	\$ 165,309	\$ 158,572	\$ 157,869	\$ 130,290
Member Contributions	33,110	30,154	30,516	32,627	31,293
Net Investment Income/(Loss)	406	583,169	378,483	(10,242)	605,422
Total Additions	217,729	778,632	567,571	180,254	767,005
Deductions ¹					
Total Benefit Expenses	\$ 229,115	\$ 222,289	\$ 210,745	\$ 193,535	\$ 180,363
Refunds	2,282	2,103	2,211	1,786	2,044
Administrative Expenses	4,297	3,542	3,634	3,597	4,108
Other	45	21	42	N/A	N/A
Total Deductions	235,739	227,955	216,632	198,918	186,515
Change in Fiduciary Net Position	\$ (18,010)	\$ 550,677	\$ 350,939	\$ (18,664)	\$ 580,490

¹ See page 104 for detailed information on Benefit and Refund deductions by type.

² Restated as defined in Government Code Section 31580.2, excludes Information Technology expenses.

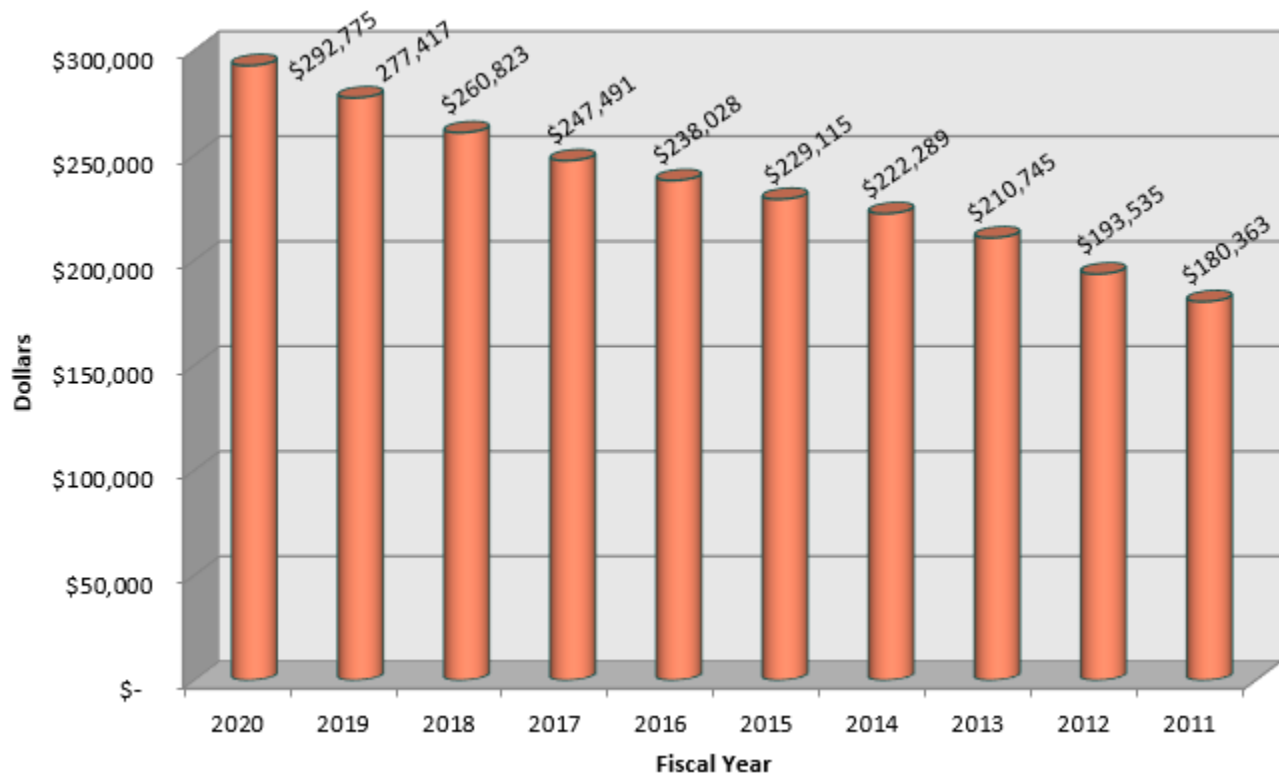
Retired Members

Schedule of Benefit Expenses by Type

Last Ten Fiscal Years

(Dollars in Thousands)

FISCAL YEAR-END	SERVICE		SURVIVOR		DISABILITIES		TOTAL ¹
	GENERAL	SAFETY	GENERAL	SAFETY	GENERAL	SAFETY	
2020	\$ 232,085	\$ 41,397	\$ 1,482	\$ 788	\$ 8,514	\$ 8,509	\$ 292,775
2019	220,173	39,011	1,402	766	8,060	8,005	277,417
2018	207,672	35,617	1,283	753	7,927	7,571	260,823
2017	198,137	33,063	2,536	1,898	5,970	5,887	247,491
2016	185,490	36,201	2,498	1,432	5,230	7,177	238,028
2015	179,054	34,516	2,298	1,426	5,314	6,507	229,115
2014	173,829	33,021	2,004	1,200	5,411	6,824	222,289
2013	165,066	31,343	1,971	994	5,241	6,130	210,745
2012	151,022	28,698	1,899	741	4,883	6,292	193,535
2011	139,412	26,584	1,548	703	5,655	6,461	180,363



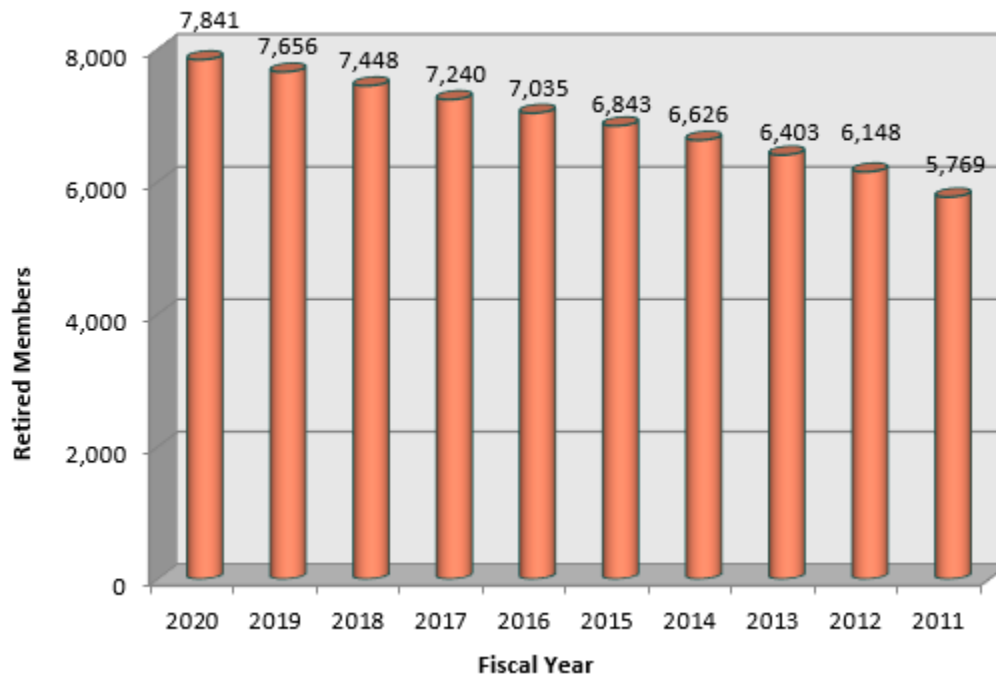
¹ Total Benefit Expenses are the actual expenses paid and will not equal Total Average Annual Benefits reported on page 97.

Retired Members continued

Schedule of Retired Members by Type of Retirement

Last Ten Fiscal Years

FISCAL YEAR-END ¹	GENERAL	SAFETY	SURVIVOR	TOTAL
2020	6,645	1087	109	7,841
2019	6,505	1048	103	7,656
2018	6,345	999	104	7,448
2017	6,191	943	106	7,240
2016	6,036	901	98	7,035
2015	5,874	872	97	6,843
2014	5,687	841	98	6,626
2013	5,498	805	100	6,403
2012	5,276	772	100	6,148
2011	4,937	733	99	5,769



¹ Includes a correction to the allocation of General, Safety Retired and Survivor at June 30, 2017. Total county for year-end 2017 remains unchanged.

Source: Schedule provided by FCERA

Retired Members continued

Schedule of Average Annual Benefit and Membership Distribution of Retired Members
Last Ten Fiscal Years

Valuation Date	Plan Type	Annual ² Number	Total Average ¹ Annual Benefits	Annual Average Benefits	Average Monthly Benefits	% Change in Average Benefits
6/30/2019	General Tier 1	6,489	\$ 229,637,952	35,389	2,949	3.3%
	General Tier 2	29	620,484	21,396	1,783	0.0%
	General Tier 3	56	842,076	15,037	1,253	-1.6%
	General Tier 4	1	7,104	7,104	592	100.0%
	General Tier 5	3	46,728	15,576	1,298	100.0%
	Safety Tier 1	1,070	54,484,032	50,920	4,243	1.9%
	Safety Tier 2	2	78,204	39,102	3,259	100.0%
	Safety Tier 5	1	24,612	24,612	2,051	0.0%
	Total	7,651	\$ 285,741,192	\$ 37,347	\$ 3,112	3.0%
6/30/2018	General Tier 1	6,353	\$ 217,672,944	\$ 34,263	\$ 2,855	3.7%
	General Tier 2	24	513,504	21,396	1,783	-10.2%
	General Tier 3	42	641,544	15,275	1,273	6.6%
	Safety Tier 1	1,025	51,218,664	49,969	4,164	3.2%
	Safety Tier 5	1	24,612	24,612	2,051	100.0%
	Total	7,445	\$ 270,071,268	\$ 36,276	\$ 3,023	3.6%
6/30/2017	General Tier 1	6,186	\$ 204,466,584	\$ 33,053	\$ 2,754	2.6%
	General Tier 2	17	404,940	23,820	1,985	-2.6%
	General Tier 3	28	401,304	14,332	1,194	-67.2%
	Safety Tier 1	969	46,903,332	48,404	4,034	1.7%
	Total	7,200	\$ 252,176,160	\$ 35,024	\$ 2,919	2.2%
6/30/2016	General Tier 1	6,068	\$ 195,506,184	\$ 32,219	\$ 2,685	1.2%
	General Tier 2	16	391,296	24,456	2,038	-18.3%
	General Tier 3	15	655,668	43,711	3,643	236.6%
	Safety Tier 1	933	44,399,616	47,588	3,966	-0.2%
	Total	7,032	\$ 240,952,764	\$ 34,265	\$ 2,855	1.1%
6/30/2015	General Tier 1	5,918	\$ 188,340,180	\$ 31,825	\$ 2,652	2.2%
	General Tier 2	11	329,076	29,916	2,493	-8.1%
	General Tier 3	9	116,892	12,988	1,082	-20.8%
	Safety Tier 1	901	42,943,056	47,662	3,972	0.8%
	Total	6,839	\$ 231,729,204	\$ 33,883	\$ 2,824	2.0%
6/30/2014	General Tier 1	5,707	\$ 177,666,204	\$ 31,131	\$ 2,594	2.7%
	General Tier 2	8	260,352	32,544	2,712	24.8%
	General Tier 3	6	98,388	16,398	1,367	-18.0%
	Safety Tier 1	849	40,128,876	47,266	3,939	2.6%
	Total	6,570	\$ 218,153,820	\$ 33,205	\$ 2,767	2.7%
6/30/2013	General Tier 1	5,536	\$ 167,842,464	\$ 30,318	\$ 2,527	2.5%
	General Tier 2	5	130,380	26,076	2,173	2.1%
	General Tier 3	3	59,988	19,996	1,666	-9.5%
	Safety Tier 1	819	37,731,336	46,070	3,839	1.6%
	Total	6,363	\$ 205,764,168	\$ 32,338	\$ 2,695	2.3%
6/30/2012	General Tier 1	5,425	\$ 160,482,984	\$ 29,582	\$ 2,465	4.4%
	General Tier 2	5	127,740	25,548	2,129	2.9%
	General Tier 3	2	44,208	22,104	1,842	2.9%
	Safety Tier 1	803	36,393,984	45,323	3,777	4.0%
	Total	6,235	\$ 197,048,916	\$ 31,604	\$ 2,634	4.3%
6/30/2011	General Tier 1	5,118	\$ 145,020,096	\$ 28,335	\$ 2,361	1.4%
	General Tier 2	5	124,080	24,816	2,068	-18.2%
	General Tier 3	2	42,960	21,480	1,790	-45.6%
	Safety Tier 1	762	33,218,904	43,594	3,633	0.7%
	Total	5,887	\$ 178,406,040	\$ 30,305	\$ 2,525	1.3%
6/30/2010	General Tier 1	4,908	\$ 137,157,624	\$ 27,946	\$ 2,329	-2.4%
	General Tier 2	5	151,680	30,336	2,528	N/A
	General Tier 3	1	39,480	39,480	3,290	N/A
	Safety Tier 1	722	31,247,496	43,279	3,607	2.2%
	Total	5,636	\$ 168,596,280	\$ 29,914	\$ 2,493	-1.6%

¹ Total Average Annual Benefits will not equal the Actual Total Benefit Expenses reported on page xx.

² Total Annual Membership provided by the Actuary will not equal the Actual Membership reported on page xx.

Source: Information above provided by Segal Consulting.

Retired Members continued

Schedule of Average Benefit Payments by Years of Credited Service

Last Ten Fiscal Years

Retirement Effective Date	Years of Credited Service ¹						
	0-4	5-9	10-14	15-19	20-24	25-29	30 and over
Period 7/1/2018 to 6/30/2019							
Average monthly benefit	\$ 590	\$ 1,180	\$ 1,763	\$ 2,973	\$ 3,666	\$ 5,038	\$ 5,649
Average Final Average Salary	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Number of retired members	17	43	51	55	53	48	44
Period 7/1/2017 to 6/30/2018							
Average monthly benefit	\$ 945	\$ 882	\$ 2,172	\$ 2,915	\$ 4,264	\$ 4,865	\$ 6,723
Average Final Average Salary	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Number of retired members	14	31	54	75	47	63	35
Period 7/1/2016 to 6/30/2017							
Average monthly benefit	\$ 483	\$ 1,011	\$ 1,908	\$ 2,742	\$ 3,711	\$ 4,805	\$ 5,753
Average Final Average Salary	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Number of retired members	16	33	44	61	43	54	36
Period 7/1/2015 to 6/30/2016							
Average monthly benefit	\$ 519	\$ 1,692	\$ 2,428	\$ 2,672	\$ 3,217	\$ 4,674	\$ 5,688
Average Final Average Salary	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Number of retired members	15	42	71	48	46	49	28
Period 7/1/2014 to 6/30/2015							
Average monthly benefit	\$ 654	\$ 1,242	\$ 1,974	\$ 3,483	\$ 3,412	\$ 4,967	\$ 5,549
Average Final Average Salary	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Number of retired members	18	52	66	70	36	46	35
Period 7/1/2013 to 6/30/2014							
Average monthly benefit	\$ 747	\$ 1,033	\$ 1,743	\$ 2,704	\$ 3,528	\$ 4,867	\$ 6,666
Average Final Average Salary	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Number of retired members	4	25	84	56	45	37	40
Period 7/1/2012 to 6/30/2013							
Average monthly benefit	\$ 1,064	\$ 1,341	\$ 2,038	\$ 3,268	\$ 4,072	\$ 4,714	\$ 5,842
Average Final Average Salary	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Number of retired members	10	27	46	24	43	21	41
Period 7/1/2011 to 6/30/2012							
Average monthly benefit	\$ 331	\$ 1,327	\$ 1,972	\$ 2,795	\$ 3,605	\$ 5,141	\$ 6,031
Average Final Average Salary	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Number of retired members	7	47	89	60	90	50	65
Period 7/1/2010 to 6/30/2011							
Average monthly benefit	\$ 699	\$ 1,489	\$ 1,847	\$ 2,881	\$ 3,140	\$ 5,237	\$ 5,703
Average Final Average Salary	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Number of retired members	16	47	63	57	58	29	40
Period 7/1/2009 to 6/30/2010							
Average monthly benefit	\$ 706	\$ 1,144	\$ 1,860	\$ 2,996	\$ 3,793	\$ 4,692	\$ 5,674
Average Final Average Salary	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Number of retired members	18	44	69	46	54	39	58

¹ Table Represents new retirees added to rolls in the period(s) noted.

N/A = Average final average salary not available due to system constraints.

Source: Information provided by Segal Consulting.

Active and Deferred Members

Schedule of Active and Deferred Members

Last Ten Fiscal Years

Date	Plan Type	Active Vested	Active Nonvested	Total Active Members	Deferred Members
6/30/2020	General	4,013	2,857	6,870	
	Safety	581	422	1,003	
	Total	4,594	3,279	7,873	4,014
6/30/2019	General	3,911	2,767	6,678	
	Safety	587	411	998	
	Total	4,498	3,178	7,676	3,873
6/30/2018	General	3,931	2,588	6,519	
	Safety	609	329	938	
	Total	4,540	2,917	7,457	3,628
6/30/2017	General	3,976	2,443	6,419	
	Safety	593	339	932	
	Total	4,569	2,782	7,351	3,462
6/30/2016	General	4,009	2,369	6,378	
	Safety	597	323	920	
	Total	4,606	2,692	7,298	3,316
6/30/2015	General	4,134	1,997	6,131	
	Safety	624	214	838	
	Total	4,758	2,211	6,969	3,208
6/30/2014	General	4,417	1,674	6,091	
	Safety	641	192	833	
	Total	5,058	1,866	6,924	1,401
6/30/2013	General	4,653	1,346	5,999	
	Safety	691	151	842	
	Total	5,344	1,497	6,841	1,263
6/30/2012	General	4,605	1,259	5,864	
	Safety	709	71	780	
	Total	5,314	1,330	6,644	1,415
6/30/2011	General	4,581	1,374	5,955	
	Safety	732	37	769	
	Total	5,313	1,411	6,724	1,451

Note: Effective with fiscal year ended June 30, 2015, Deferred Members include all terminated employees entitled to benefits with less than five years of service.

Participating Employers

Participating Employers	2020		2011	
	Covered Employees	Percentage of Covered Employees	Covered Employees	Percentage of Covered Employees
County of Fresno	7,341	93.24%	6,681	99.36%
Superior Court of California-County of Fresno ¹	492	6.25%	-	-
Fresno-Madera Area Agency on Aging	19	0.24%	30	0.45%
Clovis Veterans Memorial District	11	0.14%	8	0.12%
Fresno Mosquito and Vector Control District	10	0.13%	5	0.07%
Total	7,873	100.00%	6,724	100.00%

¹ On December 11, 2011 the Superior court of California-County of Fresno separated from the County of Fresno as a separate employer group.

Participating Employers and Active Members

Schedule of Participating Employers and Active Members

Last Ten Fiscal Years

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
County of Fresno										
General Members	6,338	6,165	6,038	5,907	5,864	5,704	5,641	5,533	5,376	5,912
Safety Members	1,003	998	938	932	920	837	833	842	780	769
Total	7,341	7,163	6,976	6,839	6,784	6,541	6,474	6,375	6,156	6,681
Participating Agencies (General Members)										
Clovis Veterans Memorial District	11	10	10	10	10	9	7	9	8	8
Fresno Mosquito and Vector Control District	10	10	10	7	7	5	6	5	5	5
Fresno-Madera Area Agency on Aging	19	25	23	22	22	24	25	26	28	30
Superior Court of California-County of Fresno ¹	492	468	438	473	475	390	412	426	447	-
Total	532	513	481	512	514	428	450	466	488	43
Total Active Members										
General Members	6,870	6,678	6,519	6,419	6,378	6,131	6,091	5,999	5,864	5,955
Safety Members	1,003	998	938	932	920	838	833	842	780	769
Total	7,873	7,676	7,457	7,351	7,298	6,969	6,924	6,841	6,644	6,724

¹ On December 11, 2011 the Superior Court of California-County of Fresno disassociated from the County of Fresno to become a separate employer group.

Employers' Contribution Rates

Schedule of Employers' Contribution Rates

Last Ten Fiscal Years

Effective Dates		General					Safety				Actuarial Report for Year Ended	
		Tier 1	Tier 2	Tier 3	Tier 4 ¹	Tier 5 ²	Tier 1	Tier 2	Tier 4 ¹	Tier 5 ²		
July 1, 2019	to June 30, 2020	56.69%	53.91%	53.87%	44.92%	43.05%	83.37%	83.81%	68.75%	66.02%	6/30/2018	
July 1, 2018	to June 30, 2019	56.32%	53.52%	53.11%	44.03%	42.42%	81.75%	81.86%	66.59%	64.23%	6/30/2017	
July 1, 2017	to June 30, 2018	56.56%	53.52%	53.06%	43.95%	42.45%	81.63%	81.80%	66.15%	63.99%	6/30/2016	
July 1, 2016	to June 30, 2017	51.43%	47.74%	47.35%	38.73%	36.96%	75.93%	75.11%	60.38%	57.99%	6/30/2015	
July 1, 2015	to June 30, 2016	50.80%	48.09%	47.38%	38.15%	37.36%	74.56%	74.20%	59.37%	57.87%	6/30/2014	
July 1, 2014	to June 30, 2015	51.07%	48.27%	47.33%	38.17%	37.48%	74.79%	74.26%	59.02%	57.41%	6/30/2013	
July 1, 2013	to June 30, 2014	44.99%	42.86%	41.64%	33.88%	32.70%	67.17%	67.21%	54.15%	51.76%	6/30/2012	
July 1, 2012	to June 30, 2013 ³	43.03%	41.15%	39.71%	31.87%	30.77%	65.06%	63.86%	51.42%	48.92%	6/30/2011	
July 1, 2011	to June 30, 2012	41.03%	38.78%	37.42%	N/A	N/A	61.25%	60.26%	N/A	N/A	6/30/2010	
July 1, 2010	to June 30, 2011	31.47%	29.48%	28.08%	N/A	N/A	47.40%	46.24%	N/A	N/A	6/30/2009	

¹ New benefit tier effective June 2012.

² New benefit tier effective January 1, 2013.

³ Includes a correction to the rates reported at June 30, 2013.

Retired Members by Type of Benefit

Schedule of Retired Members by Type of Benefit

As of June 30, 2020

Monthly Benefit Amount	Members Receiving a Benefit	Type of Retirement ¹											Option Selected ²					
		1	2	3	4	5	6	7	8	9	10	11	U	1	2	3	4	D
\$1 - 500	399	278	2	3	64	3	0	4	5	38	0	2	255	14	96	8	18	8
501 - 1,000	815	581	18	2	114	11	0	2	33	49	1	4	552	38	157	24	20	24
1,001 - 1,500	963	735	32	23	107	9	2	1	22	30	0	2	733	54	118	33	10	15
1,501 - 2,000	863	667	29	28	84	7	4	1	12	25	0	6	617	72	125	20	18	11
2,001 - 3,000	1,456	1,161	20	83	138	9	12	3	9	21	0	0	1,143	112	144	32	21	4
3,001 - 4,000	1,115	870	4	109	103	1	13	4	3	8	0	0	917	79	80	23	11	5
4,001 - 5,000	736	644	0	41	36	0	4	4	5	2	0	0	595	62	54	9	12	4
5,001 - 6,000	497	464	0	13	19	0	0	1	0	0	0	0	412	21	48	9	7	0
Over 6,000	997	953	0	14	26	0	4	0	0	0	0	0	870	43	69	4	11	0
Totals	7,841	6,353	105	316	691	40	39	20	89	173	1	14	6,094	495	891	162	128	71

Notes:

¹ Type of Retirement

- 1 = Normal retirement
- 2 = Non-service connected disability
- 3 = Service connected disability
- 4 = Beneficiary - Normal retirement
- 5 = Beneficiary – Non-Service Disability
- 6 = Beneficiary – Service Disability
- 7 = Survivor – Service Death
- 8 = Survivor – Non-Service Death
- 9 = Alternate Payee - Normal Retirement
- 10 = Alternate Payee - Non-Service Disability
- 11 = Alternate Payee - Service Disability

² Option Selected:

- U = Unmodified: Eligible Surviving Spouse receives 60% continuance.
- The following options reduce the retired member's monthly benefit:
- 1 = Beneficiary receives funds remaining in member's account.
- 2 = Beneficiary receives 100% continuance of member's reduced monthly benefit.
- 3 = Beneficiary receives 50% continuance of member's reduced monthly benefit.
- 4 = Multiple beneficiaries receive a continuance calculated by Retirement Board's actuary.
- D = Beneficiary receives disability retirement continuance for eligible active member death.

Benefits and Refund Deductions

Schedule of Benefits and Refund Deductions from Fiduciary Net Position by Type

Last Ten Fiscal Years

(Dollars in Thousands)

Type of Benefit	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Service Benefits										
General	\$ 232,085	\$ 220,173	\$ 207,672	\$ 198,137	\$ 185,490	\$ 179,054	\$ 173,829	\$ 165,066	\$ 151,022	\$ 139,412
Safety	41,397	39,011	35,617	33,063	36,201	34,516	33,021	31,343	28,698	26,584
Service Connected Disability										
General	5,195	4,912	4,799	4,233	3,385	3,164	3,214	3,208	2,787	3,321
Safety	7,514	6,728	6,604	5,794	7,067	6,340	6,718	6,016	6,138	6,309
Non-Service Connected Disability										
General	1,978	1,832	1,809	1,737	1,845	2,150	2,197	2,033	2,096	2,334
Safety	193	456	260	93	110	167	107	114	154	152
Non-Service Connected Disability Continuance										
General	1,914	1,840	1,802	1,772	1,764	1,705	1,421	1,383	1,276	1,188
Safety	299	290	288	239	236	248	162	155	139	138
Service Connected Disability Continuance										
General	805	754	768	764	734	593	583	496	408	183
Safety	1,291	1,296	1,172	1,159	1,118	1,117	903	839	602	442
Active Death Benefits	104	125	32	500	78	61	134	92	215	300
Total Benefits	\$ 292,775	\$ 277,417	\$ 260,823	\$ 247,491	\$ 238,028	\$ 229,115	\$ 222,289	\$ 210,745	\$ 193,535	\$ 180,363
Type of Refund										
Death	\$ 93	\$ 257	\$ 80	\$ 174	\$ 111	\$ 133	\$ 134	\$ 135	\$ 425	\$ 339
Miscellaneous - UAAL ¹	-	-	-	-	-	-	-	-	-	-
Separation	2,124	2,358	2,328	2,182	2,092	2,149	1,969	2,076	1,361	1,705
Total refunds	\$ 2,217	\$ 2,615	\$ 2,408	\$ 2,356	\$ 2,203	\$ 2,282	\$ 2,103	\$ 2,211	\$ 1,786	\$ 2,044

¹ UAAL means Unfunded Actuarial Accrued Liability.