City of Fresno Fire & Police Retirement System

Comprehensive Annual Financial Report
For the Fiscal Years Ended June 30, 2020 and 2019

A Pension Trust Fund of the City of Fresno
Fresno, CA

City of Fresno Fire and Police Retirement System

A Pension Trust Fund of the City of Fresno (California)

COMPREHENSIVE ANNUAL FINANCIAL REPORT

FOR FISCAL YEARS ENDED JUNE 30, 2020 AND 2019

Issued by:

Robert T. Theller

Retirement Administrator

Kathleen Riley Brown

Assistant Retirement Administrator

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MISSION STATEMENT

To protect and provide System benefits through the highest quality delivery of service for our members and the employer, prudently fulfilling our fiduciary duties of investment and conservation of Trust assets.

BOARD AND STAFF COMMITMENT

We promise to carry out our Mission through a competent, professional, impartial and open decision-making process. In providing benefits and services, all persons will be treated fairly, with courtesy and respect. Assets will be invested and administered to balance the need to control risk with superior performance. We expect excellence in all activities. We will also be accountable and act in accordance with the law.

GOALS

- *To create an environment in which Board Members can maximize their performance as trustees.*
- *To improve business processes and our delivery of services provided to members and retirees.*
- *To improve communications with members, retirees and the employer.*
- *To attract, develop and retain competent and professional staff.*
- *To achieve and maintain superior investment performance on a risk controlled basis measured by the Public Fund Universe.*

The Fire and Police Retirement System was established on July 1, 1955 and is maintained and governed by Articles 3 and 4 of the Fresno Municipal Code.

The Fire and Police Retirement System (the System) provides retirement allowances to all full-time sworn safety members employed by the City of Fresno.

INTRODUCTION

Letter of Transmittal

Robert T. Theller, Esq.
RETIREMENT ADMINISTRATOR

Dear Board Members:

As Retirement Administrator of the City of Fresno Fire and Police Retirement System (the System), it is with great pleasure that I submit the Comprehensive Annual Financial Report (CAFR) for the fiscal years ended June 30, 2020 and 2019.

During fiscal year 2020, we saw unprecedented fluctuations in the global financial markets. The world's economies and stock markets were shaken by the spread of COVID-19 with investors' fears prompting a major sell-off in February and March, plunging stocks well below their 2019 closing marks. The second quarter of 2020 saw stocks rebound from a dismal March by posting their best monthly returns since 1987 as investors were encouraged by the expectation of additional government stimulus programs and hope that the economy would be reopening soon. By the end of the quarter, a few states began easing lockdown restrictions and reopening a range of businesses. The U.S. economy started bouncing back from the pandemic lockdowns over the summer months and economists predicted a partial rebound in the third quarter. Many believe that the economy itself has further to go before it's back to normal as millions of people remain unemployed and rely on government benefits to make ends meet and employers have added back only about half of the 22 million jobs lost in March and April.

While the U.S. economic output increased at the fastest pace on record as businesses began to reopen and customers returned to stores, the economy has climbed only partway out of its pandemic-induced hole, and progress is slow. The rebound, fueled in part by trillions of dollars in federal assistance to households and businesses, and recovery remain far from complete, as aid has since dried up. The economy in the third quarter was 3.5 percent smaller than at the end of 2019, before the pandemic. By comparison, the Gross Domestic Product (G.D.P.) shrank 4 percent over the entire year and a half of the Great Recession a decade ago.

Despite these challenges, the System is at a fully funded status on both a fair value and actuarial basis at 111.5 percent and 116.3 percent, respectively. From a long-term perspective, the System is positioned to provide a solid rate of return that is equal to or better than the respective asset classes market indices even as we enter yet another year of uncertainties in the global economic and financial markets. The Retirement Board (the Board) carefully managed the investment portfolio

Letter of Transmittal Continued

through last year's global pandemic and we remain confident that new investment opportunities will arise and the Board, with the required amount of due diligence and vigilance, will position the System's investments for future long-term growth.

The System's returns for the last two years have been lower than anticipated at 1.62 percent and 5.60 percent for the fiscal years ended June 30, 2020 and 2019, respectively. Noticeably, for this two-year period the returns are both below the System's assumed rate of return of 7.00 percent effective June 30, 2020 and 2019.

In fiscal year 2020, the System's gross of fee returns provided by its custodian, Northern Trust, when compared to other institutional investors and weighted policy benchmarks, were somewhat favorable. The System's gross of fees one-year return was 1.62 percent, 0.96 percent above its policy benchmark return of 0.66 percent; and out performing its actual weighted benchmark by 0.50 percent; while under performing its actuarial interest rate assumption of 7.00 percent by 5.38 percent in Fiscal Year 2020. The five-year annualized gross of fees return of 6.23 percent was 0.67 percent below its actuarial interest rate assumption of 7.00 percent and slightly above its policy benchmark return of 5.73 percent by 0.50 percent. The System's ten-year annualized gross of fees return at 8.76 percent exceeded its policy benchmarks of 8.26 percent by 0.50 percent and also exceeded its actuarial interest rate assumption by 1.76 percent for the same period.

The System remains highly funded and well positioned to serve our members and retirees. As illustrated by the System's 10, 15 and 25-year long-term gross of fees returns of 8.76 percent, 6.66 percent and 7.96 percent, respectively, as of June 30, 2020, the System has the ability to achieve its long-term objectives over extended periods. Meanwhile, the System's actuarial and fair value funding status continues to be the highest of any public safety pension defined benefit plan in California.

The Comprehensive Annual Financial Report (CAFR)

The Comprehensive Annual Financial Report (CAFR) of the City of Fresno Fire and Police Retirement System for fiscal years ended June 30, 2020 and 2019, is submitted herewith. Information contained in this report is designed to provide a complete and accurate review of the years' operations. Responsibility for both the accuracy of the data, and the completeness and fairness of the presentation, rests with the management of the System. For a general overview of the City of Fresno Fire and Police Retirement System's finances, please refer to the Management's Discussion and Analysis in the Financial Section of this report. The CAFR consists of six sections:

The Introduction Section contains our Mission Statement, a Letter of Transmittal, a description of the System's management and organizational structure, a listing of the professional services providers, and the Government Finance Officers Association's Certificate of Achievement for Excellence in Financial Reporting.

The Financial Section contains the opinion of the independent auditor, Brown Armstrong Accountancy Corporation, Management's Discussion and Analysis, the Basic Financial Statements of the System, the Required Supplementary Information and the Other Supplementary Information.

The Investment Section includes an Investment Report from the Retirement Administrator, a letter from the System's Investment Consultant, NEPC, LLC, recapping the fiscal year investment results and activities, along with performance and

Letter of Transmittal Continued

asset allocation information. Investment Consultant returns may differ slightly from the custodian's book of record due to rounding methodology.

The Actuarial Section includes the certification letter produced by the independent actuary, The Segal Company, along with supporting schedules and information.

The Statistical Section contains significant detailed data pertaining to the System.

The Compliance Section contains the Independent Auditor's Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on An Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*.

I trust that you and the members of the System will find this CAFR helpful in understanding the System and our commitment to financial integrity and member services.

THE FIRE AND POLICE RETIREMENT SYSTEM AND ITS SERVICES

The Fire and Police Retirement System was established on July 1, 1955, under charter Section 910 and is governed by Articles 3 and 4 of Chapter 3 of the City of Fresno Municipal Code. Effective August 27, 1990, the City of Fresno (the City) added a Second Tier that includes all full-time sworn Fire, Police, and Airport Safety personnel hired on or after that date. The System provides retirement allowances to all full-time sworn safety members employed by the City of Fresno. In accordance with the provisions of the City of Fresno Municipal Code, the System provides lifetime retirement, disability, and death benefits to its safety members.

The Fire and Police Retirement Board is responsible for establishing policies governing the administration of the System, making benefit determinations, and managing the investment of the System's assets. The Board operates under the authority vested in Articles 3 and 4 of Chapter 3 of the City of Fresno Municipal Code and the California Pension Protection Act of 1992. Article XVI, Section 17(b) of the Constitution of the State of California provides that the "members of the Retirement Board of a public retirement system shall discharge their duties...solely in the interest of, and for the exclusive purpose of providing benefits to, participants and their beneficiaries, minimizing employer contributions thereto, and defraying reasonable expenses of administering the System. A Retirement Board's duty to its participants and their beneficiaries shall take precedence over any other duty." Section 17(a) further provides that the Board has..."the sole and exclusive responsibility to administer the System in a manner that will assure prompt delivery of benefits and related services to the participants and their beneficiaries." The Retirement Board is also responsible for the prudent investment of member and employer contributions, and defraying reasonable expenses of administration.

The Retirement Board has five (5) members: two (2) management employees who are appointed by the Mayor and confirmed by the City Council, one (1) employee who is elected by the sworn Fire Department members of the System, and one (1) employee who is elected by the Police and Airport Safety Officers of the System, both of which serve a four-year term. The fifth and final member of the Board shall be a qualified elector of the County of Fresno, not connected with its government, appointed by the previously designated four members. The Board oversees the Retirement Administrator and staff in the

Letter of Transmittal Continued

performance of their duties in accordance with the City of Fresno Municipal Code and the Board's Rules, Regulations and Policies.

Major Initiatives

The Board, jointly with the City of Fresno Employees Retirement System Board (the Boards), continued evaluation and education related to Alternative investments.

In May 2019, the Boards reaffirmed their decision to terminate the Systems' REIT portfolios and to commence a Core Plus real estate manager search in Fiscal Year 2020. Reinvestment of a portion of the funds from terminated REIT portfolios was in the NTAM Russell 1000 index fund.

The Boards approved a new Core Plus Real Estate mandate and initiated its search for a manager during Fiscal Year 2020. Staff and NEPC completed onsite investment due diligence on August 19th at Carlyle in Washington, DC and August 20th at Brookfield in New York, recommending that the Boards commit up to $120 million to the Carlyle Property Investors (CPI) fund pending legal review, background investigations and operational due diligence. Carlyle created an open-ended fund real estate vehicle, with a 2015 inception date, that seeks to generate core plus returns through income (cash flows) and price appreciation of real estate properties using demographic trends, themes, and analysis in gateway markets. Staff conducted an on-site Operational Due Diligence visit with Carlyle in October 2019. The Boards approved Staff's operational due diligence report and Background Investigations in November 2019, pending completion of legal review of pertinent documents. Carlyle account had an initial Capital Call of $2,709,485.88, which was funded on July 1, 2020.

Effective June 22, 2020, the Systems liquidated their PIMCO Income Fund portfolio. The Boards authorized the liquidation of this temporary fund and reinvested funds in accordance with the Boards' rebalancing policy.

The Boards authorized a European direct lending manager search through its investment consultant, NEPC, during Fiscal Year 2020. As of June 30, 2020, the Boards had accepted the Staff/NEPC investment due diligence report and selected Arcmont Asset Management. The Boards will fund the new manager at the beginning of Fiscal Year 2021. The selection and funding will have occurred following full legal review of pertinent legal documents, investment due diligence, operational due diligence and background investigations of key personnel at each firm.

Effective January 1, 2017, the IRS eliminated its staggered five-year remedial amendment cycle system for individually designed qualified retirement plans and no longer accepts applications for determination letters. The System's letter of determination was effective through January 31, 2019. The IRS' current determination letter program, in general, provides that a plan sponsor that maintains a qualified plan, with a favorable determination letter, may continue to rely on the determination with respect to any plan provision, until such time that the plan provision subsequently is amended or affected by a change in law. The Boards retained the services of the law firm of Ice Miller, LLP to assist with a review of our plan documents and applicable statutes in effect through 2013, and any plan amendments or changes to provisions made after January 1, 2014. Based on their initial review, since the date of the plan's May 26, 2014 favorable determination letter, the plan has been timely amended to comply with the changes required in order to be tax qualified under Internal Revenue Code

Letter of Transmittal Continued

§ 401 (a). Initial Ice Miller Comply Now reports for both Systems were presented to Staff in 2019, for follow-up on certain distribution provisions. Comply Now reports are undergoing additional review and update to include certain provisions required by the SECURE and CARES Acts. Final Comply Now reports are expected to be presented to the Boards during Fiscal Year 2021.

With the new challenges posed by COVID-19 during fiscal year 2020, the Retirement Benefits Staff continued to ramp up their communication efforts with both employees and retirees of the System. Aggressive efforts deployed helped to maximize enrollment in the Member Direct module initially implemented in January 2016. Participation in Member Direct increased dramatically over the previous fiscal year. In addition, Retirement Counselors successfully met and counseled Members regarding prospective retirements via Zoom. Although face-to-face in person meetings are preferable, Staff provided all the necessary information and support that the Members needed by answering individual questions to assist Members in making their retirement decisions to retire during the Fiscal Year.

With the assistance of its actuary and staff, the Board completed the annual actuarial valuations for June 30, 2020 and 2019, and Governmental Accounting Standards Board (GASB) Statement No. 67, which redefines pension liability and expense for financial reporting purposes only. In accordance with Actuarial Standards of Practice (ASOP) 51, the System's actuary has identified and assessed risks that may be reasonably anticipated to significantly affect the System's future financial condition, which helps intended users of the actuarial findings gain a better understanding of risks inherent in the measurements of pension obligations and actuarially determined pension plan contributions.

Professional Services

Professional Services Consultants and Investment Portfolio Managers are retained by the Board to provide professional services essential to the effective and efficient operation of the System. See listings on pages xiii and xiv.

An opinion from the Independent Auditor and the Actuary are included in this report along with a summary investment report from the Board’s Investment Consultant. The Consultants and Investment Managers retained by the Board are listed in the following section of this report.

Certificate of Achievement

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the City of Fresno Fire and Police Retirement System for its comprehensive annual financial report for the fiscal year ended June 30, 2019. The Certificate of Achievement is a prestigious national award recognizing excellence in the preparation of public employee retirement system comprehensive annual financial reports.

In order to be awarded a Certificate of Achievement for Excellence in Financial Reporting, a government entity must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

Letter of Transmittal Continued

A Certificate of Achievement for Excellence in Financial Reporting is valid for a period of one year only. The System has received a Certificate of Achievement for the last twenty consecutive years. We believe that our current comprehensive annual financial report continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate. For Fiscal Year 2019, the System submitted a Popular Annual Financial Report (PAFR) to the GFOA. The System received from the GFOA an Award for Outstanding Achievement in Popular Annual Financial Reporting. The PAFR provides System membership with condensed and concise information in an easier to read format than is presented in the CAFR.

Actuarial Funding Status and Net Pension Liability

The System's funding objective is to meet long-term benefit promises by retaining a well-funded plan status and obtaining superior investment returns while minimizing employer contributions. The Board's objective for employer contributions is to establish a rate as a level percent of member payroll. The greater the level of overall plan funding, the larger the ratio of assets accumulated compared to the actuarial accrued liability and the greater the level of investment potential. The advantage of a well-funded plan is that the benefits earned by participants are funded during their working careers and not by future generations of taxpayers.

The June 30, 2020 actuarial valuation is presented in this CAFR. As of June 30, 2020, the funded ratio of the Fire and Police Retirement System was 116.3 percent. The ratio of the valuation value of assets to actuarial accrued liabilities was 117.0 percent as of the June 30, 2019, valuation. The funding ratios as of June 30, 2020 and 2019, if measured using the fair value of assets instead of the actuarial valuation value of assets are 111.5 percent and 117.5 percent, respectively. The funded ratios were determined by using the actuarial value of the assets in accordance with actuarial standards.

The actuarial accrued liability of the System at June 30, 2020, for funding purposes, amounted to $1,331,146,000; the actuarial valuation value of assets amounted to $1,547,641,320 and the fair value of assets (including non-valuation reserves) amounted to $1,635,299,813. At June 30, 2019, the actuarial valuation value of assets amounted to $1,495,023,241; the fair value of assets (including non-valuation reserves) amounted to $1,647,799,602.

Under the Governmental Accounting Standards Board (GASB) Statement No. 67 Financial Reporting methodology, the net pension liability of the System as of June 30, 2020 indicates a surplus of $69,669,369; while on an actuarial funding basis the valuation value of assets basis reflects a surplus of $216,495,320 and a funding ratio of 116.3 percent. At June 30, 2019, the net pension liability of the System indicated a surplus of $143,671,068 and a funding ratio of 117.0 percent. For financial reporting purposes, the Plan Fiduciary Net Position as a percentage of the Total Pension Liability is 104.45% and 109.55% as of June 30, 2020 and 2019, respectively.

The Board engages an independent actuarial consulting firm to conduct annual actuarial valuations of the System. The purpose of the actuarial valuation is to reassess the magnitude of the benefit commitments. This is compared to the assets expected to be available to support those commitments. Recommendations are presented to the Board for consideration. The Segal Company is the System's independent actuarial consultant. The Actuarial Section of this report contains a more detailed discussion of funding.

Letter of Transmittal Continued

Accounting System & Reports

The management of the System is responsible for establishing and maintaining an internal control structure designed to ensure that System assets are protected from loss, theft, or misuse. Responsibility for the accuracy, completeness, and fair presentation of the information, and all disclosures, rests with the management of the System.

The accounting firm of Brown Armstrong Accountancy Corporation provides financial audit services. The financial audit ensures that the System's financial statements are presented in conformity with accounting principles generally accepted in the United States of America (GAAP) and are free of material misstatement. The internal controls are designed to provide reasonable but not absolute assurance that these objectives are met. The System recognizes that even sound internal controls have their inherent limitations. Internal controls are reviewed to ensure that the System's operating policies and procedures are being adhered to and that the controls are adequate to ensure accurate and reliable financial reporting and to safeguard the System's assets. The objective is to provide a reasonable, rather than absolute, assurance that the financial statements are free of any material misstatements given the prudent need to ensure that the cost of a control should not exceed the benefits to be derived. We believe that the System's internal controls adequately safeguard assets.

This report has been prepared in accordance with Generally Accepted Accounting Principles for State and Local Governments (GAAP) as established by the Governmental Accounting Standards Board (GASB). The System's transactions are reported on the accrual basis of accounting. Revenues are taken into account when earned, regardless of the date of collection. Expenses are recorded when the corresponding liabilities are incurred, regardless of when the payment is made.

Investments

Article XVI, Section 17(c) of the Constitution of the State of California, provides that "the members of the Retirement Board of a public pension or retirement system shall discharge their 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 aim." By permitting further diversification of investments within a fund, the prudent expert standard may enable a fund to reduce overall risk and increase returns. A summary of the asset allocation can be found in the investment section of this report and in Note 2 – Summary of Significant Accounting Policies (see section Investment).

The prudent expert rule permits the Board to establish an investment policy based upon professional advice and counsel and allows for delegation of investment authority to professional investment advisors. The Investment Objectives and Policy Statement of the Board outline the responsibility for the investment of the fund and the degree of risk that is deemed appropriate for the fund. Investment advisors are to execute the policy in accordance with the Board policy and guidelines.

For the fiscal years ended June 30, 2020 and 2019, the System's investments provided a 1.62 percent and 5.60 percent gross of fees rate of return, respectively, as reported by the custodian, Northern Trust.

Letter of Transmittal Continued

Acknowledgments

The compilation of this report reflects the combined effort of the System's staff under the leadership of the Board. It is intended to provide complete and reliable information as a basis for making management decisions, as a means of determining compliance with legal provisions, and as a means of determining responsible stewardship of the funds of the System.

On behalf of the Board, I would like to express my appreciation for the dedication and efforts of my staff members, Kathleen Riley Brown, Yvonne Timberlake, Chad Jacobs, Alberto Magallanes, Karen Espiritu, Cristina Jurado, Pattie Laygo, Andrea Ketch, Phillip Carbajal, Patricia Basquez, Joan Taketa, Ohn Viengsay, Stanton Perkins, Tracy Gonzales and the Board's consultants, for their assistance in the preparation of this report and for their ongoing commitment to serve the Board and the members of the System. I also would like to thank the Board members for their support in accomplishing the many tasks and goals over the past year.

Respectfully Submitted,

Robert Theller

Robert T. Theller, Esq.
Retirement Administrator

November 30, 2020

Retirement Board Members

As of June 30, 2020

Chair
Jonathan Lusk
Re-Elected June 2018
Term Expires June 2022
Represents Fire Members

Vice Chair
John Jensen
Elected December 2018
Term Expires June 2020
Represents Police Members

Lynn Bennink
Appointed June 2017
Term Continuous
Outside Member Appointed by the Retirement Board

Brad Driscoll
Appointed March 2020
Term Continuous
Outside Member Appointed by the Retirement Board

Donald Gross
Appointed May 2019
Term Continuous
Appointed by the Mayor and Confirmed by the Fresno City Council

Retirement Administrative Staff

Robert T. Theller, Esq.
Retirement Administrator

Pattie Laygo
Executive Asst. to Dept Director

Tracey Gonzales
Senior Administrative Clerk

Chad Jacobs
Investment Officer

Stanton Perkins
Programmer/Analyst IV

Financial Services

(From left to right)
Karen Espiritu
Accountant-Auditor II
Alberto Magallanes
Retirement Accounting Manager
Kathleen Riley-Brown
Assistant Retirement Administrator
Cristina Jurado
Accounting Technician

Benefit Services

(From left to right)
Patti Basquez
Retirement Counselor II
Andrea Ketch
Senior Retirement Counselor
Yvonne Timberlake
Assistant Retirement-Administrator
Onh Viengsay
Retirement Counselor II
Phillip Carbajal
Retirement Counselor II
Joan Taketa
Retirement Counselor II

Administration of the System

Administration

The Administrative Section is responsible for the administration of the City of Fresno Fire and Police Retirement System, including the risk management of the investment activities in accordance with the policies, regulations, and general guidelines of the Retirement Board. It is also responsible for interfacing with the investment managers, the investment consultant, the actuary, legal counsel, custodial bank, and any other consultants authorized by the Board. (See pages xiii and xiv for professional services and consultants and investment portfolio managers and page 77 for a schedule of brokerage commissions.)

Member Services

This section is responsible for providing all benefit services to the members of the System. This includes benefit calculations, investigation of claims for disability retirement, preparation of data to support applications for retirement, preparation of the retiree payroll, membership counseling, and membership training.

Financial Services

This section is responsible for planning, organizing and directing all fiscal activities of the Retirement Systems. This includes the preparation and publication of the Annual Financial Reports, monthly or quarterly financial report and information to the Board, and all other financial records and reports including financial statements, control and balancing of payroll and members' contributions and reconciliation of investments.

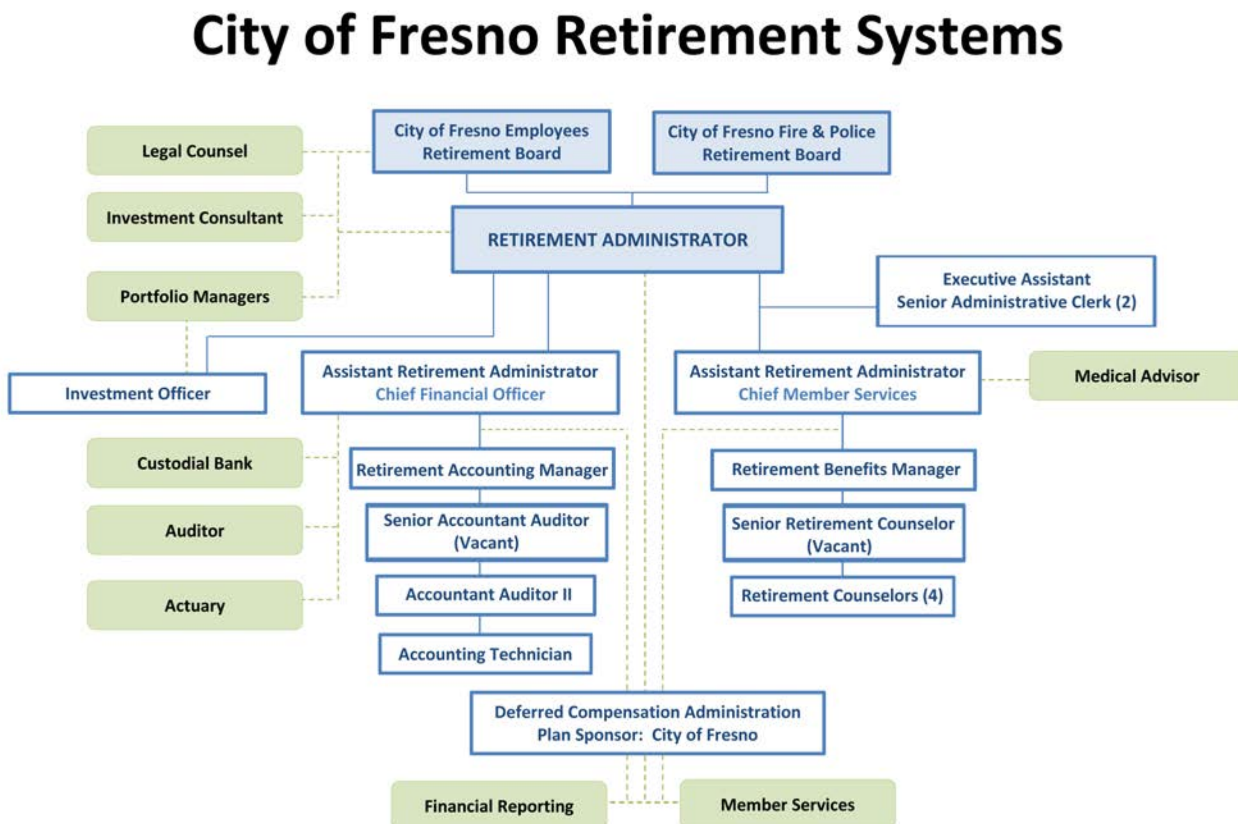
Investment Officer

This position is responsible for monitoring compliance with the Board’s Investment Objectives and Policy Statement and assists and coordinates in the management and administration of the System's investment program. This includes the planning and development of investment strategies.

Executive Assistant

This position is responsible for providing administrative and clerical support services for the Board and the retirement staff.

Organizational Structure



Professional Services and Consultants

Custodial Bank

NORTHERN TRUST
Chicago, Illinois

General Legal Advisor

SALTZMAN and JOHNSON LAW CORPORATION
San Francisco, California

Tax Counsel

ICE MILLER LLP
Indianapolis, Indiana

Investment Legal Advisor

FOLEY & LARDNER LLP
Boston, Massachusetts

Operational Due Diligence - Background Investigations

CHARLES LEVENBERG, LLC
Boulder, Colorado

Investment Consultant

NEPC, LLC
Boston, Massachusetts

Actuary

THE SEGAL COMPANY
San Francisco, California

Medical Advisor

BENCHMARK, AN EXAMWORKS COMPANY, INC.
Sacramento, California

Independent Auditor

BROWN ARMSTRONG ACCOUNTANCY CORPORATION
Bakersfield, California

Investment Portfolio Managers

DOMESTIC EQUITY

Large Cap

Northern Trust Asset Management, Denver, CO

Small Cap

Eagle Asset Mgmt., Inc., St. Petersburg, FL

Kennedy Capital Mgmt. Inc., St. Louis, MO

INTERNATIONAL & EMERGING MARKETS

International

BlackRock, San Francisco, CA

Baillie Gifford & Co., Edinburgh, Scotland

Principal Global Investors, DesMoines, IA

Emerging Market

Acadian Asset Mgmt. LLC, Boston, MA

Axiom Int'l Investors, LLC, Boston, MA

FIXED INCOME

Core Fixed Income

Dodge & Cox, San Francisco, CA

Prudential Investment Mgmt., Inc., Newark, NJ

High Yield

Loomis Sayles, Boston, MA

REAL ESTATE

Private Real Estate Investments

Core

JP Morgan Asset Mgmt., New York, NY

The Carlyle Group, Washington, D.C.

Value Add

Oaktree Capital Management, Los Angeles, CA

PCCP, LLC, Los Angeles, CA

PIMCO BRAVO III, Newport Beach, CA

Blue Vista Capital Management, Chicago, IL

Artemis Real Estate Partners, Chevy Chase, MD

Brookfield Asset Management, New York, NY

ALTERNATIVES

Private Debt/Credit

Crescent Capital, Los Angeles, CA

Monroe Capital, Chicago, IL

PIMCO COF II, Newport Beach, CA

Infrastructure

JP Morgan IIF, New York, NY

Ullico UIF, Silver Spring, MD

Private Equity

Pantheon Ventures, San Francisco, CA

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

City of Fresno Fire and Police Retirement System
California

For its Comprehensive Annual Financial Report For the Fiscal Year Ended

June 30, 2019

Executive Director/CEO

To protect and provide system benefits through the highest quality delivery of service for our members and the employer, prudently fulfilling our fiduciary duties of investment and conservation of Trust assets.

FINANCIAL

Independent Auditor's Report

BROWN ARMSTRONG
CERTIFIED PUBLIC ACCOUNTANTS

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TEL 559.476.3592

STOCKTON OFFICE
1919 GRAND CANAL BLVD
SUITE C6
STOCKTON, CA 95207
TEL 888.565.1040

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BROWN ARMSTRONG
Certified Public Accountants

INDEPENDENT AUDITOR'S REPORT

To the Board of Retirement
City of Fresno Fire and Police Retirement System
Fresno, California

Report on the Financial Statements

We have audited the accompanying Statements of Fiduciary Net Position of the City of Fresno Fire and Police Retirement System (the System) as of June 30, 2020 and 2019, the related Statements of Changes in Fiduciary Net Position for the fiscal years then ended, and the related notes to the basic financial statements, which collectively comprise the System'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 basic 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 basic financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

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

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the basic financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the basic financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the System's preparation and fair presentation of the basic 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 System'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 basic financial statements.

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

Independent Auditor's Report Continued

Opinions

In our opinion, the basic financial statements referred to above present fairly, in all material respects, the respective Fiduciary Net Position of the System as of June 30, 2020 and 2019, and the Changes in Fiduciary Net Position for the fiscal years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

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

Other Information

Our audit was conducted for the purpose of forming opinions on the System's basic financial statements. The Other Supplementary Information and the Introduction, Investment, Actuarial, and Statistical Sections, as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements.

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

The Introduction, Investment, Actuarial, and Statistical Sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or 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 November 30, 2020, on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and agreements and other matters. The purpose of that report is to solely 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 System'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 System's internal control over financial reporting and compliance.

BROWN ARMSTRONG
ACCOUNTANCY CORPORATION

Brown Armstrong
Accountancy Corporation

Bakersfield, California
November 30, 2020

Management's Discussion and Analysis

We are pleased to provide this overview and analysis of the financial activities of the City of Fresno Fire and Police Retirement System (the System) for the fiscal years ended June 30, 2020 and 2019. We encourage readers to consider the information presented here in conjunction with additional information that we have furnished in the Letter of Transmittal beginning on page i of this report.

Financial Highlights

The System's net position restricted for pension benefits is for payment of pension benefits to participants and their beneficiaries and all of the net position is restricted to meet the System's ongoing obligations.

At the close of the fiscal year 2020, the assets of the System exceed its current liabilities by $1,635,299,813; as of fiscal year-end 2019, the assets of the System exceeded its liabilities by $1,647,799,602; and as of fiscal year-end 2018, the assets of the System exceeded its liabilities by $1,602,585,594.

The System's net position restricted for pension benefits decreased by $12,499,789 or 0.76 percent for fiscal year 2020; for the prior fiscal year 2019 total net position increased by $45,214,008 or 2.82 percent; and for the prior fiscal year 2018 total net position increased by $93,042,806 or 6.16 percent, all primarily as a result of the performance of the global investment markets.

The System's funding objective is to meet long-term benefit obligations through contributions and investment income. As of June 30, 2020, the date of the last actuarial valuation, the funded ratio for the System was 116.3 percent. In general, this indicates that for every dollar of benefits due we have approximately $1.16 of assets available for payment as of that date.

As of June 30, 2019, the date of the previous annual actuarial valuation, the funded ratio for the System was 117.0 percent; and as of June 30, 2018, the date of the previous annual actuarial valuation, the funded ratio for the System was 120.3 percent.

Additions to Fiduciary Net Position

Additions for the fiscal year 2020 decreased $56,532,018 or 50.00 percent over the prior year from $113,073,390 to $56,541,372, which includes member contributions of $10,011,831, employer contributions of $22,324,019, a net investment income gain of $23,823,204 and net securities lending income of $382,318.

Fiscal year 2019 additions decreased $44,750,028 or 28.35 percent over the prior year from $157,823,418 to $113,073,390, which included member contributions of $9,597,068, employer contributions of $20,604,377, a net investment income gain of $82,431,446 and net securities lending income of $440,499.

For fiscal year 2018 additions decreased $61,206,567 or 27.94 percent over the prior year from $219,029,985 to $157,823,418, which included member contributions of $8,963,672, employer contributions of $19,696,957, a net investment income gain of $128,685,224 and net securities lending income of $477,565.

Deductions from Fiduciary Net Position

Deductions for the fiscal year 2020 increased $1,181,779 or 1.74 percent over the prior fiscal year from $67,859,382 to $69,041,161.

Fiscal year 2019 deductions increased $3,078,770 or 4.75 percent over the prior fiscal year from $64,780,612 to $67,859,382.

Management's Discussion and Analysis Continued

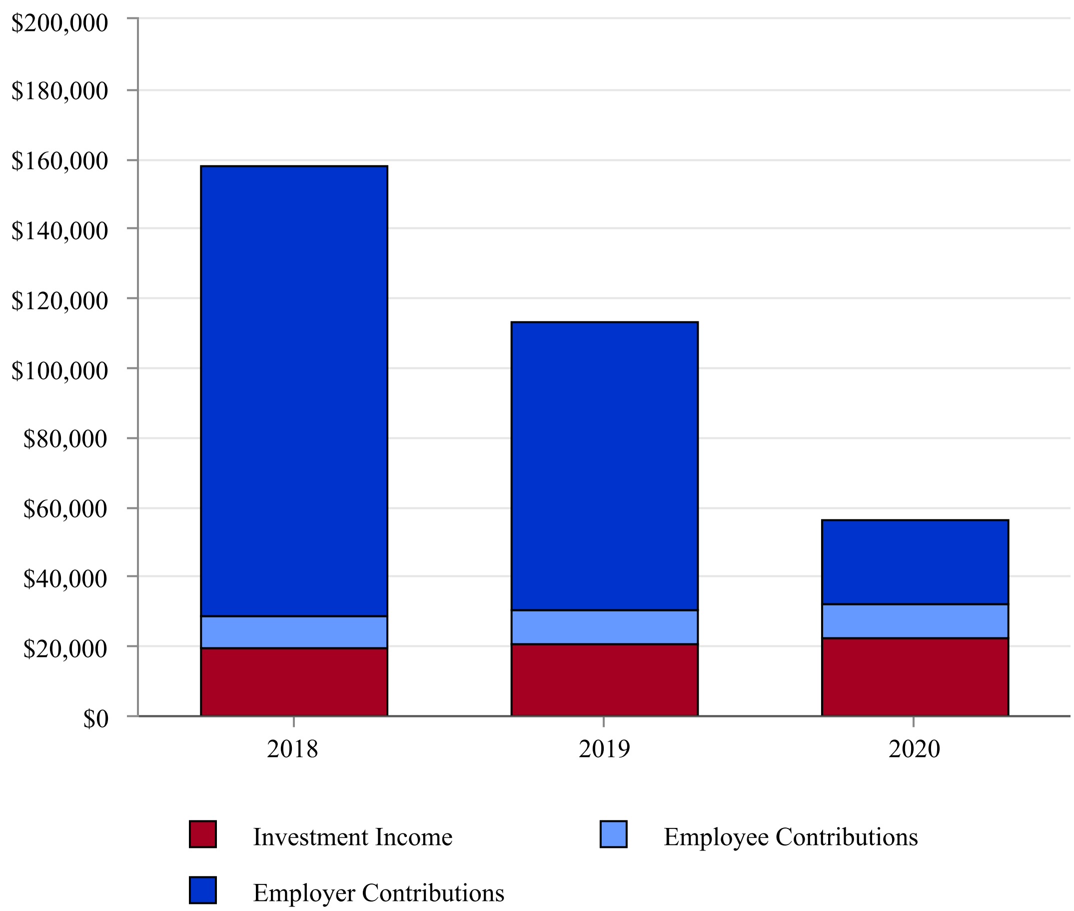
Fiscal year 2018 deductions increased $4,004,775 or 6.59 percent over the prior fiscal year from $60,775,837 to $64,780,612.

The current year increase in deductions is due primarily to an increase in the number of retirees and a modest increase in the Post Retirement Supplemental Benefit (PRSB) payments for calendar year 2020.

Schedule and Graph of Additions By Source

For Fiscal Years Ended June 30, 2020, 2019 and 2018 (In Thousands)

	2018	2019	2020
Employer Contributions	$ 19,697	$ 20,604	$ 22,324
Employee Contributions	8,964	9,597	10,012
Investment Income	129,162	82,872	24,205
TOTAL	$ 157,823	$ 113,073	$ 56,541

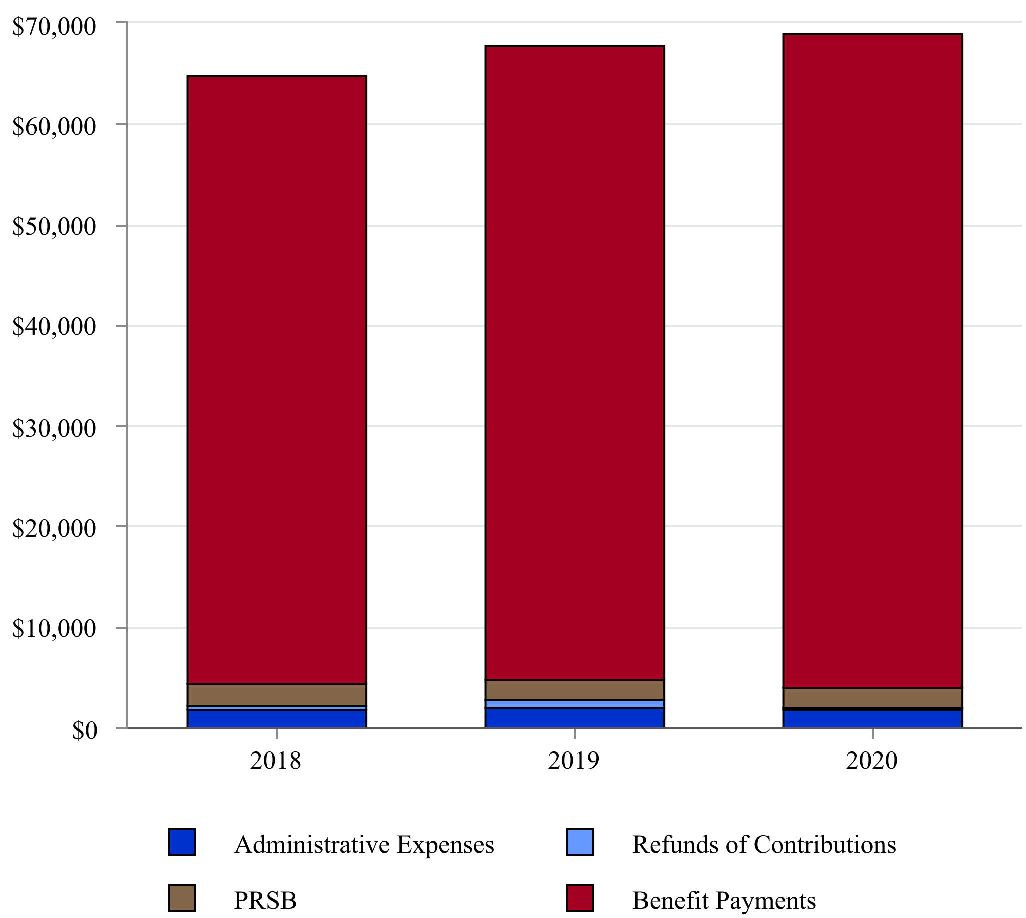


Management's Discussion and Analysis Continued

Schedule and Graph of Deductions By Type

For Fiscal Years Ended June 30, 2020, 2019 and 2018 (In Thousands)

	2018	2019	2020
Benefit Payments	$ 60,492	$ 62,991	$ 65,020
PRSB	2,019	2,122	1,964
Refunds of Contributions	560	849	218
Administrative Expenses	1,710	1,897	1,839
TOTAL	$ 64,781	$ 67,859	$ 69,041



Management's Discussion and Analysis Continued

Overview of the Financial Statements

The following discussion and analysis are intended to serve as an introduction to the System's financial statements, which are comprised of these components:

Statement of Fiduciary Net Position – The Statement of Fiduciary Net Position presents the major categories of assets and liabilities and their related value as of the System's fiscal years ended June 30, 2020 and 2019. "Net Position Restricted for Pension Benefits" represents funds available to pay benefits and it is a point in time or a snapshot of account balances as of the fiscal year-end. It indicates the assets available for future payments to retirees and any current liabilities. Increases and decreases in Net Position Restricted for Pension Benefits, when analyzed over time, may serve as an indicator of whether the System's financial position is improving or deteriorating. Other factors, such as market conditions, should also be considered in measuring the System's overall health.

Statement of Changes in Fiduciary Net Position – This Statement of Changes in Fiduciary Net Position provides information about the financial activities during the reporting period that increased and decreased the Net Position Restricted for Pension Benefits.

The two statements above include all assets and liabilities, using the full accrual basis of accounting, which is similar to the accounting method used by most private sector companies. All of the current year's additions and deductions are taken into account regardless of when the 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.

Both statements are in compliance with Governmental Accounting Standards Board (GASB) Pronouncements.

These pronouncements require certain disclosures and require State and Local governments to report using the full accrual basis of accounting. The System complies with all material requirements of these pronouncements.

Notes to the Basic Financial Statements - The Notes to the Basic Financial Statements are an integral part of the basic financial statements and provide additional information that is essential to acquire a full understanding of the information and data provided in the two statements discussed above. The notes include further discussion and details regarding the System's key policies, programs, investments and activities that occurred during the year.

Required Supplementary Information – The Required Supplementary Information presents historical trend information concerning the changes in net pension liability, employer contributions and investment returns, and includes notes that explain factors that significantly affect trends in the amounts reported, such as changes of benefit terms, changes in the size or composition of the population covered by the benefit terms, or the use of different assumptions over time. The information is based on actuarial valuations prepared for the pension plan. The actuarial valuation report includes additional actuarial information that contributes to the understanding of the changes in the net pension liability of the defined benefit pension plan over the past ten years as presented in the schedule. The actuarial information is based upon assumptions made regarding future events at the time the valuations are performed and is derived for both financial reporting and funding purposes.

Management's Discussion and Analysis Continued

Other Supplementary Information – The Other Supplementary Information, presented immediately following the required supplementary information, includes schedules pertaining to the System's administrative expenses, investment management fees and other investment related expenses, and payments to consultants and other professional services providers.

The System's funding ratio at June 30, 2020, was 116.3 percent, which means the System's fund has approximately $1.16 available for each $1.00 of liability. The Statement of Fiduciary Net Position and the Statement of Changes in Fiduciary Net Position report information about the System's financial activities during the reporting periods that increased and decreased the Net Position Restricted for Pension Benefits.

Financial Analysis Net Position

As previously noted, net position restricted for pension benefits may serve over time as a useful indication of the System's financial position. The System's assets exceeded its liabilities at the close of the fiscal year 2020 by $1,635,299,813. All of the net position restricted for pension benefits is available to meet the System's ongoing obligations to plan participants and their beneficiaries.

In fiscal year 2020, the System's restricted fiduciary net position, representing assets available to pay current and future member pension benefits, decreased by 0.76 percent largely due to volatility and fluctuations lowering performance of the global investment markets; while in 2019 the System's restricted fiduciary net position increased by 2.82 percent due to strong performance of the global investment markets; and also, due to strong investment performance in 2018, the System's restricted fiduciary net position increased by 6.16 percent (See Table 1).

In order to determine whether the $1.635 billion in net position will be sufficient to meet future obligations, the System's independent actuary performed an actuarial valuation as of June 30, 2020. The result of this valuation determines what future contributions by plan members and the City of Fresno are needed to pay all expected future benefits. The valuation takes into account the Board's (the Board) funding policy which includes a provision to smooth the impact of market volatility by spreading each year's gains or losses over five years.

There has been extreme volatility in the various economies of the world and throughout the global financial markets over the past twenty to twenty-five years, therefore, it is of utmost importance to examine the System's investment returns with a long-term view rather than a short-term focus which tends to distort the perception of how well the investments have actually performed. As an example, you cannot isolate the high returns during the Tech Bubble in the 1990's without including the Tech Bubble corrections in the early 2000's.

Historical long-term performance rates of returns demonstrate that the System has been able to meet or exceed its actuarial assumed rate of return of 7.00 percent over long periods. As of June 30, 2020, the System's 25-year annualized return is 7.96 percent and its 20-year annualized return is 6.01 percent.

Despite volatility in the stock market, management and the System's actuary concur that the System remains in a very strong financial position to meet its obligations to the plan participants and beneficiaries. The System's current financial position is a result of a very sound and carefully managed investment and risk management program.

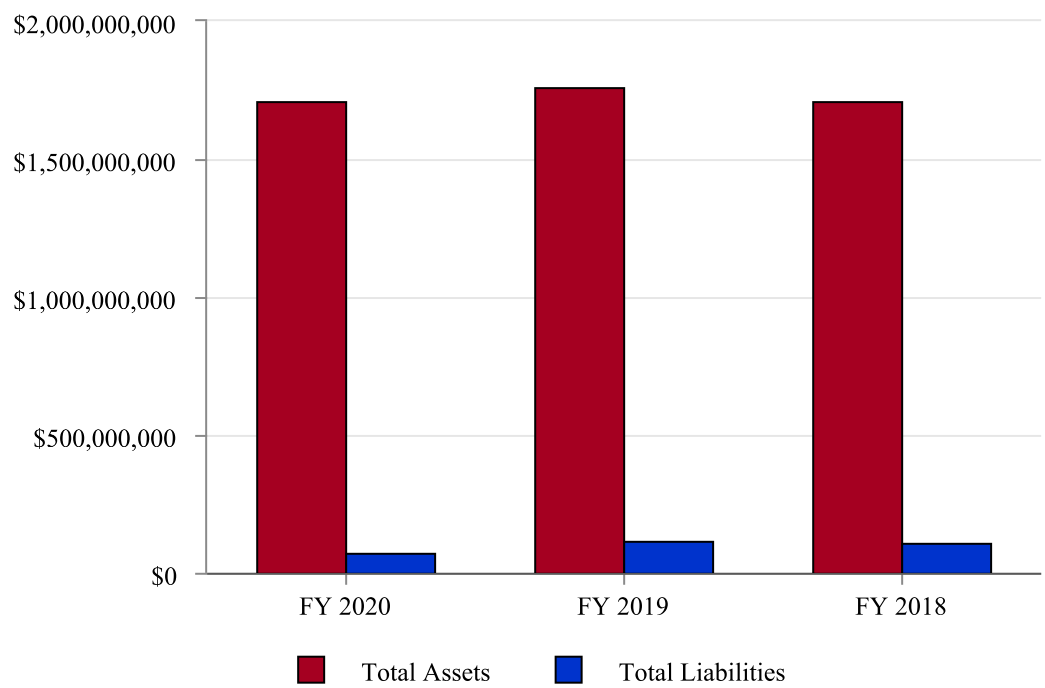
Management's Discussion and Analysis Continued

Table 1 – Fire and Police Retirement System Fiduciary Net Position Restricted For Pension Benefits

As of June 30, 2020, 2019 And 2018

	FY 2020	FY 2019	FY 2020 Increase/ (Decrease) Amount	FY 2020 Increase/ (Decrease) Percent
Current and Other Assets	$ 73,736,050	$ 147,619,240	$ (73,883,190)	(50.05%)
Investments at Fair Value	1,633,470,664	1,614,051,932	19,418,732	1.20%
Total Assets	$1,707,206,714	$1,761,671,172	$ (54,464,458)	(3.09%)
Total Liabilities	71,906,901	113,871,570	(41,964,669)	(36.85%)
Net Position Restricted for Pension Benefits	$1,635,299,813	$1,647,799,602	$ (12,499,789)	(0.76%)

	FY 2019	FY 2018	FY 2019 Increase/ (Decrease) Amount	FY 2019 Increase/ (Decrease) Percent
Current and Other Assets	$ 147,619,240	$ 108,904,110	$ 38,715,130	35.55%
Investments at Fair Value	1,614,051,932	1,600,674,190	13,377,742	0.84%
Total Assets	$1,761,671,172	$1,709,578,300	$ 52,092,872	3.05%
Total Liabilities	113,871,570	106,992,706	6,878,864	6.43%
Net Position Restricted for Pension Benefits	$1,647,799,602	$1,602,585,594	$ 45,214,008	2.82%



Management's Discussion and Analysis Continued

Capital Assets

The System's investment in capital assets decreased from $828,412 to $689,560 (net of accumulated depreciation) between fiscal years 2019 and 2020 after decreasing from $966,652 to $828,412 (net of accumulated depreciation) between fiscal years 2018 and 2019. This investment in capital assets includes office equipment, furniture, software, and technology infrastructure. The total change in the System's investment in capital and intangible assets as of June 30, 2020 and 2019 was $(138,852) and $(138,240), respectively. These changes in both fiscal years were primarily due to the costs incurred for the development of software to program and install an upgrade to our original pension administration system that was originally installed in 1997, which was implemented effective July 1, 2015.

Reserves

Reserves are not required, nor recognized, under accounting principles generally accepted in the United States of America (GAAP). The reserves are not shown separately on the Statement of Fiduciary Net Position, but they equate to and are accounts within the net position restricted for pension benefits and are vital to the System's operations. They are established from contributions and the accumulation of investment income, after satisfying investment and administrative expenses. Investments of the System are stated at fair value instead of at cost, which includes the recognition of unrealized gains and losses in the current period.

The System's major reserve accounts, described in Note 5 – Net Position Restricted for Pension Benefits, include Active Member (Employee) Reserve, Employer Advance/ Retired Reserve, DROP Reserve, PRSB Reserve and City Surplus Reserve.

Deferred Retirement Option Program (DROP) Reserve represents funds reserved for Deferred Retirement Option Program benefits accumulated by active members and retirees. DROP is an alternate method of receiving retirement benefits. It is a voluntary program as described by the conditions and requirements of the City of Fresno Municipal Code Section 3-353. A DROP account is a nominal, bookkeeping account established within the System for each DROP participant. Monthly amounts credited to DROP accounts include an amount which represents the service retirement allowance which the member would have received if the member had retired on the date the member commenced DROP participation and interest credited at the five year average interest rate as adopted by the Retirement Board (the Board) in accordance with the City of Fresno Municipal Code requirements.

Post Retirement Supplemental Benefit (PRSB) Reserve represents surplus earnings that have been allocated but not distributed to eligible participants in accordance with the City of Fresno Municipal Code Section 3-354. PRSB is a supplemental benefit distributed to eligible participants in accordance with the City of Fresno Municipal Code Section 3-354, if and only if distributable actuarial surplus is available to provide such a benefit. Actuarial surplus means the amount by which the actuarial value of the System's assets exceeds one hundred and ten percent (110%) of the System's actuarial accrued liabilities.

Management's Discussion and Analysis Continued

City Surplus Reserve represents the portion of distributable actuarial surplus that has been allocated but not used as a reduction to offset or eliminate the City of Fresno's (the City) pension contributions in accordance with the conditions and requirements of the City of Fresno Municipal Code Section 3-354 Post-Retirement Supplemental Benefits. The City Surplus Reserve Account accrues interest at the average gross rate of return earned by the System's entire investment portfolio for each of the three prior fiscal years, including realized and unrealized gains and losses and as reduced by all investment related expenses.

Table 2 shows that the vast majority of reserves are generated from Employer Advance/Retired reserves. DROP reserves represent funds credited for participants who elected to participate in the Deferred Retirement Option Program. PRSB Reserve presents that portion of distributable actuarial surplus that has been allocated for PRSB but not yet distributed to eligible participants.

Additions to and deductions from PRSB occur when surpluses and allocations occur, respectively. The City Surplus reserve represents that portion of distributable actuarial surpluses and accrued interest, reduced by required City normal pension contributions. The City Surplus Reserve Account shall be drawn upon in subsequent years if needed to reduce or eliminate the City's annual pension contribution requirement.

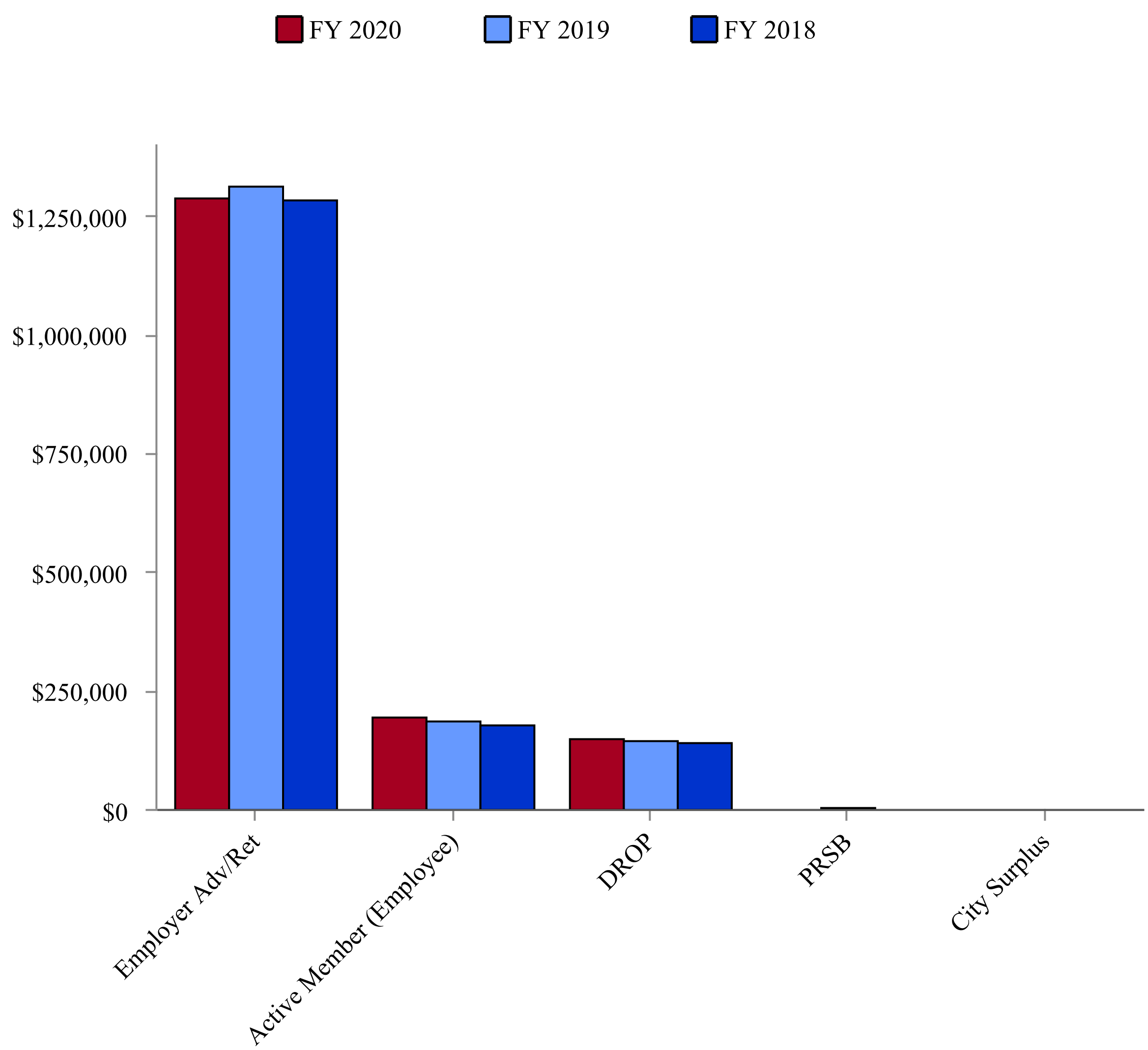
The City Surplus Reserve Account shows positive balances for fiscal years 2020, 2019 and 2018 due to estimated surplus allocations available to the City for offsetting the City's contributions for fiscal years 2020, 2021 and 2022. The City's normal contribution rate for fiscal years 2020 and 2019 also included adjustments for economic and non-economic actuarial assumption changes including the assumed rate of return which is 7.00 percent effective July 1, 2018.

Management's Discussion and Analysis Continued

Table 2 – Fire and Police Retirement System's Reserves

As of June 30, 2020, 2019, and 2018 (In Thousands)

	FY 2020	FY 2019	FY 2018
Employer Advance/Retired Reserves	$ 1,288,740	$ 1,314,392	$ 1,282,881
Active Member (Employee) Reserves	195,375	186,720	177,163
DROP Reserves	148,782	144,291	139,944
PRSB Reserves	1,728	2,084	2,011
City Surplus Reserves	675	313	587
Net Position Restricted for Pension Benefits	$ 1,635,300	$ 1,647,800	$ 1,602,586



Management's Discussion and Analysis Continued

System's Activities

Attributable in part to the continued volatility in global economic and financial markets, the System's net position decreased $12,499,789 for the fiscal year 2020 resulting in a 0.76 percent decrease in the fiduciary net position restricted for pension benefits for the fiscal year ended June 30, 2020. Primarily attributable to the growth in the global financial markets in fiscal year 2019, the System's fiduciary net position increased $45,214,008 for the fiscal year resulting in a 2.82 percent increase in the fiduciary net position restricted for pension benefits for the fiscal year ended June 30, 2019; the System's fiduciary net position increased $93,042,806 resulting in a 6.16 percent increase in the fiduciary net position restricted for pension benefits for the fiscal year ended June 30, 2018.

Key elements of the additions to and deductions from Fiduciary Net Position for fiscal years 2020, 2019 and 2018 are described in the sections below.

Additions to the System's Fiduciary Net Position

The reserves needed to finance retirement benefits are normally accumulated through the collection of employer and employee contributions and through earnings on investment income net of investment expense. Total additions for the fiscal year ended June 30, 2020 totaled $56,541,372.

For the fiscal year ended June 30, 2020, overall additions had decreased by $56,532,018 or 50.00 percent primarily due to lower than anticipated performance in the global investment markets; for fiscal year 2019, overall additions had decreased by $44,750,028 or 28.35 percent primarily due to lower than anticipated performance in the global investment markets; for fiscal year 2018, overall additions had decreased by $61,206,567 or 27.94 percent from the prior fiscal year. The investment section of this report reviews the details of the results of investment activity for the fiscal year ended June 30, 2020.

Deductions from the System's Fiduciary Net Position

The System was created to provide lifetime retirement annuities, survivor benefits and permanent disability benefits to qualified members and their beneficiaries. The cost of such programs includes recurring benefit payments, as designated by the System, refunds of contributions to terminated employees, and the cost of administering the System.

Deductions from the fiduciary net position for the fiscal year ended June 30, 2020, totaled $69,041,161 which was an increase of $1,181,779 or 1.74 percent over the prior fiscal year 2019. Deductions from the fiduciary net position for the fiscal year ended June 30, 2019, totaled $67,859,382 which was an increase of $3,078,770 or 4.75 percent over the prior fiscal year 2018. The fiscal year ended June 30, 2018 had deductions from the fiduciary net position totaling $64,780,612, which was an increase of $4,004,775 or 6.59 percent over the prior fiscal year 2017. The current year increase in benefits paid resulted primarily from a modest increase in PRSB payments for calendar year 2020 and the normal increase in the number of new retirees receiving benefits.

The System's increases in total expenses have closely paralleled inflation and the growth in the membership and services provided. The System has consistently met its Administrative Expense Budget. There are no material variances between planned expenses and actual expenses.

Management's Discussion and Analysis Continued

Changes in Fiduciary Net Position (Condensed)

For Fiscal Years Ended June 30, 2020, 2019 and 2018

	FY 2020	FY 2019	FY 2020 Increase/ (Decrease) Amount	FY 2020 Increase/ (Decrease) Percent
Additions				
Employer Contributions	$ 22,324,019	$ 20,604,377	$ 1,719,642	8.35%
Employee Contributions	10,011,831	9,597,068	414,763	4.32%
Net Investment Income *	24,205,522	82,871,945	(58,666,423)	(70.79%)
Total Additions	$ 56,541,372	$ 113,073,390	$ (56,532,018)	(50.00%)
Deductions				
Retiree Benefit Payments	$ 65,019,584	$ 62,990,700	$ 2,028,884	3.22%
Post Retirement Supplemental Benefit (PRSB)	1,964,344	2,122,442	(158,098)	(7.45%)
Refunds of Contributions	217,962	848,993	(631,031)	(74.33%)
Administrative Expenses	1,839,271	1,897,247	(57,976)	(3.06%)
Total Deductions	$ 69,041,161	$ 67,859,382	$ 1,181,779	1.74%
Changes in Net Position	(12,499,789)	45,214,008	(57,713,797)	(127.65%)
Net Position Restricted for Pension Benefits				
Beginning of the Year	1,647,799,602	1,602,585,594	45,214,008	2.82%
End of the Year	$1,635,299,813	$1,647,799,602	$ (12,499,789)	(0.76%)

* Net of investment expense of $15,650,520 and $16,012,333 for June 30, 2020 and 2019, respectively.

	FY 2019	FY 2018	FY 2019 Increase/ (Decrease) Amount	FY 2019 Increase/ (Decrease) Percent
Additions				
Employer Contributions	$ 20,604,377	$ 19,696,957	$ 907,420	4.61%
Employee Contributions	9,597,068	8,963,672	633,396	7.07%
Net Investment Income *	82,871,945	129,162,789	(46,290,844)	(35.84%)
Total Additions	$ 113,073,390	$ 157,823,418	$ (44,750,028)	(28.35%)
Deductions				
Retiree Benefit Payments	$ 62,990,700	$ 60,491,661	$ 2,499,039	4.13%
Post Retirement Supplemental Benefit (PRSB)	2,122,442	2,019,167	103,275	5.11%
Refunds of Contributions	848,993	560,170	288,823	51.56%
Administrative Expenses	1,897,247	1,709,614	187,633	10.98%
Total Deductions	$ 67,859,382	$ 64,780,612	$ 3,078,770	4.75%
Changes in Net Position	45,214,008	93,042,806	(47,828,798)	(51.41%)
Net Position Restricted for Pension Benefits				
Beginning of the Year	1,602,585,594	1,509,542,788	93,042,806	6.16%
End of the Year	$1,647,799,602	$1,602,585,594	$ 45,214,008	2.82%

* Net of investment expense of $16,012,333 and $11,544,650 for June 30, 2019 and 2018, respectively.

Management's Discussion and Analysis Continued

System's Fiduciary Responsibilities

The System's Board and management staff are fiduciaries of the pension trust fund. Under the California Constitution, the assets must be used exclusively for the benefit of plan participants and their beneficiaries.

Requests for Information

This financial report is designed to provide the Retirement Board, our membership, taxpayers, investment managers, and creditors with a general overview of the City of Fresno Fire and Police Retirement System's finances, and to show accountability for the funds it receives. Questions concerning any of the information provided in this report, or requests for additional financial information should be addressed to:

City of Fresno Fire and Police Retirement System

2828 Fresno Street Suite 201

Fresno, California 93721-1327

Respectfully submitted,

Robert Theller

Robert T. Theller, Esq.
Retirement Administrator

November 30, 2020

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Basic Financial Statements

Statement of Fiduciary Net Position

As of June 30, 2020 and 2019

		2020		2019
ASSETS				
Cash (Note 7)	$	1,804,337	$	3,739,323
Collateral Held for Securities Lent (Note 9)		65,582,976		98,294,737
Receivables				
Receivables for Investments Sold		1,685,631		36,794,678
Interest and Dividends		2,996,706		4,107,473
Other Receivables		809,376		3,731,934
Total Receivables		**5,491,713**		**44,634,085**
Prepaid Expenses		—		—
Total Current Assets		**72,879,026**		**146,668,145**
Investments at Fair Value (Note 6 and Note 7) and NAV				
Domestic Equity		599,330,006		465,966,024
International Developed Market Equities		278,817,237		297,494,943
Government Bonds		73,174,015		137,031,968
Corporate Bonds		179,530,643		205,702,512
Alternatives		266,776,428		168,772,722
Real Estate		161,635,856		258,568,925
International Emerging Market Equities		57,459,201		56,346,628
Short-Term Investments		16,747,278		24,168,210
Total Investments		**1,633,470,664**		**1,614,051,932**
Capital Assets Net of Accumulated Depreciation (Note 12)		689,560		828,412
Other Assets		167,464		122,683
Total Assets		**1,707,206,714**		**1,761,671,172**
LIABILITIES				
Collateral Held for Securities Lent (Note 9)		65,582,976		98,294,737
Payable for Investments Purchased		4,057,124		9,958,277
Other Liabilities		1,456,973		1,899,061
Payable for Foreign Currency Purchased		809,828		3,719,495
Total Liabilities		**71,906,901**		**113,871,570**
Net Position Restricted for Pension Benefits (Note 5)	**$**	**1,635,299,813**	**$**	**1,647,799,602**

The notes to the basic financial statements on pages 19 - 56 are an integral part of this statement.

Basic Financial Statements Continued

Statement of Changes in Fiduciary Net Position

For Fiscal Years Ended June 30, 2020 and 2019

	2020	2019
ADDITIONS		
Contributions (Note 3)		
Employer	$ 22,324,019	$ 20,604,377
Employee	10,011,831	9,597,068
Total Contributions	**32,335,850**	**30,201,445**
Investment Income		
Net Appreciation/(Depreciation) in Value of Investments	10,919,219	66,984,611
Interest	13,066,761	14,865,131
Dividends	14,297,993	14,216,423
Other Investment Related	73,226	60,921
Total Investment Income	38,357,199	96,127,086
Less: Investment Expense	(14,533,995)	(13,695,640)
Total Net Investment Income	**23,823,204**	**82,431,446**
Securities Lending Income		
Securities Lending Earnings (Note 9)	1,498,843	2,757,192
Less: Securities Lending Expense	(1,116,525)	(2,316,693)
Total Net Securities Lending Income	382,318	440,499
Total Additions	**56,541,372**	**113,073,390**
DEDUCTIONS		
Benefit Payments	65,019,584	62,990,700
Post Retirement Supplemental Benefits (Note 11)	1,964,344	2,122,442
Refunds of Contributions	217,962	848,993
Administrative Expense	1,839,271	1,897,247
Total Deductions	**69,041,161**	**67,859,382**
Changes in Net Position	**(12,499,789)**	**45,214,008**
NET POSITION RESTRICTED FOR PENSION BENEFITS		
BEGINNING OF YEAR	**1,647,799,602**	**1,602,585,594**
END OF THE YEAR	**$ 1,635,299,813**	**$ 1,647,799,602**

The notes to the basic financial statements on pages 19 - 56 are an integral part of this statement.

Notes to the Basic Financial Statements

1 Significant Provisions of the Retirement System

The City of Fresno Fire and Police Retirement System (the System) was established on July 1, 1955, under provisions of the City of Fresno Ordinance Number 4611, and charter Section 910, and is maintained and governed by Article 3 and 4 of Chapter 3 of the Municipal Code of the City of Fresno (the City) but not under the control of the City Council. The System is a single-employer, contributory, defined benefit pension plan. The System is a public employee retirement system that provides lifetime retirement, disability, and death benefits to the safety members employed by the City of Fresno, includes all full time sworn fire, police and airport safety personnel.

The System is administered by the Fire and Police Retirement Board (Board) which operates under the authority vested in Article 3 and 4 of Chapter 3 of the City of Fresno Municipal Code and the California Pension Protection Act of 1992 which provides that "the members of the Retirement Board of a public retirement system shall discharge their duties…solely in the interest of, and for the exclusive purpose of providing benefits to participants and their beneficiaries, minimizing employer contribution thereto, and defraying reasonable expenses of administering the System."

The Fire and Police Retirement Board does not operate under the control of the City Council. The Board has the sole and exclusive responsibility to administer the System in a manner that will assure prompt delivery of benefits and related services to the members and their beneficiaries.

Fiduciary oversight of the Fire and Police Retirement System is vested with the Board, which consists of five (5) members: two (2) management employees who are appointed by the Mayor and confirmed by the City Council, one (1) employee who is elected by the sworn Fire Department members of the System, and one (1) employee who is elected by the Police and Airport Safety Officers of the System; both elected members serve a four-year term. The fifth and final member of the Board is a qualified elector of the County of Fresno, not connected with its government, elected by the previously designated four members and serves at the pleasure of the Board.

The Board, in conjunction with the Employees Retirement Board, appoints, directs and oversees a Retirement Administrator. The Retirement Administrator is responsible for the overall management and administration of the Employees and Fire and Police Retirement Systems in accordance with the direction, policy and goals set by the Boards and for providing highly responsible and complex administrative support to the Boards. The Retirement Administrator serves at the pleasure of the Boards.

Working closely with the Boards, the Retirement Administrator and his staff develop investment and benefits policies, coordinate member services and programs, and develop long-term strategies that fulfill the Systems' mission and goals.

The Board oversees the Retirement Administrator and staff in the performance of their duties in accordance with the City of Fresno Municipal Code and the Board's Rules, Regulations and Policies.

Notes to the Basic Financial Statements Continued

Membership and Benefit Eligibility

The Fire and Police Retirement System is one System with two tiers. Effective August 27, 1990, the City of Fresno (the City) added the Fire and Police Second Tier for all full time sworn fire, police and airport safety personnel hired on or after that date (and closed the Fire and Police First Tier to new entrants). Both tiers are governed by the City of Fresno Municipal Code. The provisions of Tier 1 are set forth in Article 3 of Chapter 3, while the Tier 2 provisions are stated in Article 4.

All permanent sworn Fire and Police personnel of the City of Fresno are eligible to participate in the plan. Temporary Public Safety employees are not eligible to participate in the plan. Employees become eligible for membership on their first day of full-time regular employment, and members become fully vested after earning 5 years of service credit.

Total participants of the System were comprised of the following at June 30, 2020 and 2019:

	2020	2019
Active Members		
Vested	805	795
Non-Vested	291	331
Total Active Members	1,096	1,126
Retirees and Beneficiaries of Deceased Retirees, Currently Receiving Benefits	1,106	1,079
Inactive Vested Members	85	88
Total Retirees and Inactive Members	1,191	1,167
Grand Total	**2,287**	**2,293**

Benefit Provisions

The System provides lifetime retirement, disability, and death benefits to all eligible permanent sworn Fire, Police and Airport personnel employed by the City of Fresno. The retirement (pension) benefits the member will receive are based upon a combination of age at retirement, years of credited service, final average monthly salary, tier and the option selected by the participant. Death and disability benefits are additionally based upon whether the disability was service connected and whether the death occurred before or after retirement.

Members' contributions, including interest, are 100 percent vested at all times. Employer contributions do not become vested until completion of 10 years of credited service under the First Tier and five years of credited service under the Second Tier when they become 100 percent vested, but are not payable until the member attains the age of 50 under both tiers. Contributions are made by the members and the employer at rates recommended by the System’s actuary and adopted by the Retirement Board.

Member Retirement Benefits

Members of Tier 1, hired prior to August 27, 1990, are eligible to retire once they attain the age of 65 regardless of service or at age 50 and have acquired 10 or more years of retirement service credit. The Tier 1 benefit is calculated pursuant to the provisions of Section 3-333 of the City of Fresno Municipal Code. The monthly allowance for a member with at least 20 years of service who retires from active status is equal to 55 percent of final compensation plus 2 percent of final compensation for each year of service in excess of 20 years completed after age 50. For Tier 1, final average compensation consists of the final highest consecutive 36 months of compensation earnable calculated using the rate of pay actually earned by the member in effect at the time of retirement. Some members can elect to have their final compensation based on a rank average.

Notes to the Basic Financial Statements Continued

Members of Tier 2, hired on or after August 27, 1990, are eligible to retire once they attain the age of 65 regardless of service or at age 50 and have acquired 5 or more years of retirement service credit. The Tier 2 benefit is calculated pursuant to the provisions of Section 3-411 of the City of Fresno Municipal Code. The monthly allowance for a member who is age 55 or older is equal to 2.70 percent of final compensation times years of accrued retirement service credit. The maximum monthly retirement allowance is 75 percent of final compensation. For Tier 2, final average compensation consists of the highest consecutive 36 months of compensation earnable during any 36 months of service before the date of retirement.

The member may elect an unmodified retirement allowance, or choose an optional retirement allowance. The unmodified retirement allowance provides the highest monthly benefit and a 66 2/3 percent continuance to an eligible surviving spouse or domestic partner. An eligible surviving spouse is one married to the member one year prior to the effective retirement date for members retiring on or before the effective date (February 10, 2000) of Ordinance No. 2000-5. For members retiring after the effective date of Ordinance 2000-5, an eligible surviving spouse or domestic partner is one married to or registered with the member on or before the date of retirement.

There are four optional retirement allowances the member may choose. Each of the optional retirement allowances requires a reduction in the unmodified retirement allowance in order to allow the member the ability to provide certain benefits to a surviving spouse, domestic partner, or named beneficiary having an insurable interest in the life of the member.

The City of Fresno contributes to the retirement plan based upon actuarially determined contribution rates adopted by the Board. Employer contribution rates are adopted annually based upon recommendations received from the Retirement System's actuary after the completion of the annual actuarial valuation. The average employer contribution rate as of June 30, 2020 for 2019-2020 (based on the June 30, 2018 valuation) was 19.61 percent of compensation.

All members are required to make contributions to the Retirement System. The average member contribution rate as of June 30, 2020 for 2019-2020 (based on the June 30, 2018 valuation) was 8.79 percent of compensation.

Deferred Retirement Option Program (DROP)

DROP is an optional voluntary program that allows a member to have his or her retirement benefits deposited in a special account within the System while the member continues to work in his or her current position. It is a voluntary method of receiving a distribution of retirement benefits; it is not an additional retirement benefit.

DROP may not be beneficial to all members. Each member must determine how the DROP option will affect the member's retirement benefits prior to making an election to enter the DROP.

The member's retirement benefits are determined as of the date of entry into the DROP option and accumulate in the member's DROP account while the member continues to work. Members entering DROP, after January 27, 2011 in accordance with ordinances that amended sections of the City of Fresno Municipal Code, continue making employee contributions.

Notes to the Basic Financial Statements Continued

Eligibility: Any member who is eligible for a service retirement, is age 50 with a minimum of 5 years of service.

Participation Period: The maximum participation period is ten years. Because the participation period cannot be extended, the member must retire at its conclusion; however, the member may end participation in DROP and terminate employment with the City and begin retirement at any time prior to the end of the ten-year period.

DROP Account: A DROP account is set up for each participant; the monthly amount credited to DROP accounts include an amount which represents the service retirement allowance which the member would have received if the member had retired on the date the member commenced DROP participation. Interest is also credited to the DROP account monthly at a rate which is set annually by the Retirement Board. The rate is based on the prior five-year moving average of net market returns of the System's investments in accordance with the City of Fresno Municipal Code requirements. The Board is authorized to reduce the annual interest crediting rate up to 3 percent, if necessary, to maintain DROP's cost neutrality.

A DROP account is a nominal, bookkeeping account established within the System for each DROP participant.

Upon termination of DROP participation and retirement from the City, a member receives the amounts credited to their DROP account, including interest. In addition, the member will also begin receiving his or her monthly retirement allowance in the amount being credited to their DROP account. The member may select a method of withdrawing the money from his or her DROP account from the options provided.

DROP Reserves which represent funds reserved for DROP benefits accumulated by active members and retirees were $148,781,892 and $144,291,360 as of June 30, 2020 and 2019, respectively.

Terminated Member Benefits

If a member terminates before earning five years of credited service, the member forfeits the right to receive his or her service retirement benefit and is entitled to withdraw refundable contributions made, together with accumulated interest. If the member enters a reciprocal retirement system within 180 days (6 months) of terminating employment with the City of Fresno and elects to leave their accumulated contributions on deposit with the System, then the member will receive a deferred retirement allowance when eligible.

Death and Disability Benefits

Death benefits are based upon whether the death occurred before or after retirement. Disability benefits are based upon final average salary, years of credited service and whether the member is over or under age 50 and whether the permanent incapacity is found to be service connected (caused by the job) or ordinary (injury or illness not caused by their job) disability. There is no minimum service requirement before benefits are payable for service-connected disability. However, in order to receive ordinary disability benefits, the member must have completed at least 10 years of service.

Cost of Living Benefits

Cost-of-living adjustment (COLA) increases for the First Tier retirees are determined by the increases attached to ranks of active safety employees for those having retired under the rank-average option. For those retired under the 3-year average, cost-of-living is based on the percentage of change in the weighted mean average monthly compensation attached to all ranks of members, as compared with the prior fiscal year and limited to a maximum of 5 percent per year.

Notes to the Basic Financial Statements Continued

Tier 1 cost-of-living adjustments (COLA) depend on the type of method chosen by the employee at retirement. If the employee chose the Career Rank method, the COLA is a recalculation of his/her retirement based on the new salaries adopted for the current year. If the method chosen by the retiree is the final 3-year method, the COLA is based on the change in the weighted mean average compensation attached to all ranks in the department with a cap of five percent (5%) per year. Any excess over the 5% is banked for use in years when the COLA calculation is less than 5%.

Cost-of-Living Adjustment (COLA) increases for the Tier 2 retirees will be determined by the change in Consumer Price Index (CPI) with a maximum of 3 percent per year. Provisions for the COLA increases are outlined in the City of Fresno Municipal Code and changes may be made only by code amendment.

Tier 2 COLAs are based on the change in the CPI (for all Urban Wage Earners and all Clerical Workers – U.S. City Average) as provided in the City of Fresno Municipal Code. Retirement staff research the percentage change in CPI and propose that percent to the Fire and Police Retirement Board as the COLA to be adopted for the following fiscal year. This procedure must be completed by the end of April each year for implementation in January of the following calendar year. The COLA is limited to a three percent (3%) maximum change per year and any excess over 3 percent is banked for the retiree for use in a year where the percent of CPI change is less than 3 percent.

The Board adopted the annual COLA adjustment, pursuant to Section 3-411, 1.77 percent, January 1, 2020, 2.2 percent, January 1, 2019, 1.9 percent, effective January 1, 2018.

2 Summary of Significant Accounting Policies

Reporting Entity

The Retirement System, with its own governing board, is an independent governmental entity separate and distinct from the City of Fresno. The System's annual financial statements are included in the City of Fresno Annual Financial Report as a pension trust fund.

Basis of Accounting

The System's financial statements are prepared using the accrual basis of accounting and in accordance with accounting principles generally accepted in the United States of America (GAAP), under which revenues are recognized when earned and deductions are recorded when the liability is incurred. Employer and employee contributions are recognized as revenue when due. Contributions are recorded in the period the related salaries are earned and become measurable. Investment income is recognized when it is earned. The net appreciation in fair value of investments held by the System is recorded as an increase to investment income based on the valuation of investments at fiscal year end, which includes both realized and unrealized gains and losses on investments. Retirement benefits and refunds are recognized when due and payable under the terms of the plan and per Sections 3-322 and 3-324 of the City of Fresno Municipal Code. Other expenses are recognized when the corresponding liabilities are incurred.

Securities lending transactions are accounted for in accordance with Governmental Accounting Standards Board (GASB) Statement No. 28, *Accounting and Financial Reporting for Securities Lending Transactions*, which establishes reporting standards for securities lending transactions. In accordance with Statement No. 28, cash received as collateral on securities lending

Notes to the Basic Financial Statements Continued

transactions and investments made with that cash are reported as assets and liabilities resulting from these transactions and are both reported in the Statement of Fiduciary Net Position. In addition, the costs of securities lending transactions are reported as an expense in the Statement of Changes in Fiduciary Net Position.

Investments

The System is authorized by the City of Fresno Municipal Code and the policies of the Retirement Board to invest in any form or type of investment deemed prudent by the Board and does so through its Investment Objectives and Policy Statement which establishes and outlines the responsibilities of the various parties that are associated with managing assets of the Retirement System, consistent with applicable sections of the City of Fresno Municipal Code, Federal laws and Article XVI, Section 17(c) of the Constitution of the State of California which provides that "the member of the Retirement Board of a public pension or retirement system shall discharge their 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 aim."

System investments are reported at fair value. Fair value is the amount that the System can reasonably expect to receive for an investment in a current sale between a willing seller, that is, other than in a forced or liquidation sale. Fair value for investments of publicly traded securities is stated at fair value based upon closing sales prices reported on recognized securities exchanges on the last business day of the period or for listed securities having no sales reported and for unlisted securities, based upon last reported bid prices. All purchases and sales of securities are accounted for on a trade date basis and dividends declared but not received are accrued on the ex-dividend date. Short-term investments are reported at cost, which approximates fair value. Securities traded on national or international exchanges are valued at the last reported sales price at current exchange rates. Investments in both bonds and mortgage backed pass-through certificates are carried at fair value.

Cost values, as shown, are derived from Master Custodial Transaction Records. The fair value of real estate investments is based on independent appraisals. Investments that do not have an established market are reported at estimated fair values.

The asset allocation policy set by the Board, in conjunction with the Employees Retirement Board, is outlined in the Boards' Investment Objectives and Policy Statement. Plan assets are managed with a long-term objective of achieving and maintaining a fully funded status for the benefits provided by the System. The table on the following page provides the Boards' adopted asset allocation policy as of June 30, 2020 and 2019.

Notes to the Basic Financial Statements Continued

Asset Allocation Policy

As of June 30, 2020 and 2019

Asset Class	FY 2020	FY 2019
Domestic Equity		
Large Cap	15.8%	17.0%
Small Cap	7.2%	8.0%
International Equity		
Developed Markets	19.0%	20.0%
Emerging Markets	7.0%	7.0%
Fixed Income		
Core Fixed Income	10.0%	10.0%
High Yield Bonds	5.0%	5.0%
Real Estate		
Core Real Estate	11.0%	10.0%
Value Add Real Estate/REITs	4.0%	5.0%
Alternatives		
Infrastructure	4.0%	2.0%
MLPs	5.0%	5.0%
Private Equity	4.0%	3.0%
Private Debt	8.0%	8.0%
Short-Term Investments	0.0%	0.0%
	100%	**100%**

Estimates

The preparation of financial statements in accordance with generally accepted accounting principles (GAAP) requires the System administrator to make estimates and assumptions that affect certain amounts and disclosures. Accordingly, actual results may differ from those estimates.

Reclassifications

Certain amounts presented in the prior year's data has been reclassified to be consistent with the current year's presentation. Such reclassifications had no effect on previously reported fiduciary net position.

3 Contributions

Authority to Collect

The responsibility for both City and employee contributions to the System is mandated by the City of Fresno Municipal Code Sections 3-319, 3-324, and 3-405.

Contributions are made by the members and the employer at rates recommended by the System's independent actuary and adopted by the Board.

All active members are required to make contributions to the System. Employee contribution rates vary in Tier 1 according to entry age and are designed to provide funding for approximately one-third of the retirement benefits. The Tier 1 average member contribution rate as of June 30, 2020 for 2019-2020 (based on the June 30, 2018 valuation) was 0.00% of compensation for members not in the DROP Program. The Tier 1 average member contribution rate as of June 30, 2019 for 2018-2019 (based on the June 30, 2017 valuation) was 0.00% of compensation.

Notes to the Basic Financial Statements Continued

Employee contribution rates in Tier 2 are established at nine percent (9%) of pensionable base pay.

The City's contribution rates are designed to provide funding for the remaining regular retirement and cost-of-living benefits, as well as all disability and survivors' benefits.

The aggregate employer contribution rate as of June 30, 2020 for 2019-2020 (based on the June 30, 2018 valuation) was 19.59% of compensation. The aggregate employer contribution rate as of June 30, 2019 for 2018-2019 (based on the June 30, 2017 valuation) was 18.72% of compensation.

One of the funding objectives of the System is to establish contribution rates which, over time, will remain level as a percentage of payroll unless the System benefit provisions are changed.

Funding Status & Method

Comprehensive Actuarial Funding Policy and Actuarial Cost Methodology for Funding Purposes

The Board adopted a Comprehensive Actuarial Funding Policy on November 7, 2012. For the Fire & Police Retirement System, that policy included a change in actuarial cost methodology from the aggregate Entry Age Normal funding method used for funding purposes to the individual Entry Age Normal (EAN) method as this individual EAN method is used by a substantial majority of the retirement systems in California and nationwide. More importantly, the Board made this change in actuarial cost methodology due to the adoption of GASB Statements No. 67 and 68 which substantially revises the financial reporting requirements for governmental pension plans and their sponsors.

Goals of the Actuarial Funding Policy:

- To achieve long-term full funding of the cost of benefits provided by the System;
- To seek reasonable and equitable allocation of the cost of benefits over time; and
- To minimize any volatility of the City's contribution to the extent reasonably possible, consistent with other policy goals.

Funding Requirements and Policy Components

The System's annual funding requirement is comprised of a payment of the Normal Cost and a payment on the Unfunded Actuarial Accrued Liability (UAAL) if applicable. The Normal Cost and the amount of the payment on UAAL are determined by three components of the Board's funding policy: 1) Actuarial Cost Method – the techniques used to allocate the cost/liability of retirement benefits to a given period; 2) Asset Smoothing Method – the techniques that spread the recognition of investment gains or losses over a period of time for the purposes of determining the Actuarial Value of Assets used in the actuarial valuation process; and 3) Amortization Policy – the decisions on how, in terms of duration and pattern, to fund the difference between the Actuarial Accrued Liability and the Actuarial Value of Assets in a systematic manner.

Using the Asset Smoothing Method, the investment gains or losses of each valuation period, as a result of comparing the actual market return to the expected market return, are recognized in level amounts over five (5) years in calculating the Actuarial Value of Assets.

Notes to the Basic Financial Statements Continued

As of June 30, 2020, the System does not have an Unfunded Actuarial Accrued Liability (UAAL). The Board's Amortization Policy sets forth the amortization procedures for funding any UAAL or amortization and allocation of any available surplus in the System.

Any new UAAL as a result of actuarial gains or losses identified in the annual valuation as of June 30 will be amortized over a period of fifteen (15) years. Any new UAAL as a result of any change in actuarial assumptions or methods will be amortized over a period of twenty-five (25) years. The amortization period for any increase in UAAL as a result of any amendments to the System will be amortized over a period of fifteen (15) years, while any increase in UAAL resulting from a temporary retirement incentive will be funded over a period not to exceed five (5) years. UAAL shall be amortized over "closed" (separate) amortization periods so that the amortization period for each layer decreases by one year with each actuarial valuation.

UAAL is amortized as a level percentage of payroll so that the amortization amount in each year during the amortization period shall be expected to be a level percentage of covered payroll, taking into consideration the current assumption for general payroll increase.

If an overfunding status exists (i.e., the Valuation Value of Assets exceeds the Unfunded Actuarial Accrued Liability (UAAL), the System is considered to have a surplus in the System as of a point in time), such actuarial surplus and any subsequent surpluses will be amortized over an "open" amortization period of twenty-five (25) years.

This amortization period of twenty-five years shall be applicable to the provisions in the City of Fresno Municipal Code Sections relating to the amortization period used in the calculation of the Post Retirement Supplement Benefit (PRSB). Any prior Unfunded Actuarial Accrued Liability (UAAL) amortization layers will be considered fully amortized, and any subsequent UAAL will be amortized over fifteen (15) years as the first of a new series of amortization layers.

The System uses a five year smoothing of market gains and losses to derive the actuarial value of assets. For the fiscal year ended June 30, 2020, the actuarial value of assets was $1.548 billion with a funded percentage of 116.3 percent on a valuation value of assets.

The progress being made towards meeting the System's funding objective through June 30, 2020 is illustrated in the Schedule of Funding Progress shown on the following page and in the Actuarial Section on page 89.

Notes to the Basic Financial Statements Continued

Schedule of Funding Progress

For The Three Years Ending June 30, 2020

(Dollars in Millions)

	(1)	(2)	(3)	(4)	(5)	(6)
Actuarial Valuation Date	**Actuarial Valuation Value of Assets**	**Actuarial Accrued Liability (AAL)**	**Percentage Funded (1)/(2)**	**(Prefunded) / Unfunded AAL (2)–(1)**	**Annual Covered Payroll**	**(Prefunded) / Unfunded AAL Percentage of Covered Payroll (4)/(5)**
2020	$1,548	$1,331	116.3%	($217)	$118	(183.6%)
2019	$1,495	$1,278	117.0%	($217)	$115	(188.8%)
2018	$1,437	$1,195	120.3%	($242)	$111	(218.1%)

Funding Policy

The City currently funds, at a minimum, the amounts recommended by the actuary and approved by the Retirement Board. Such amounts are determined using the individual entry age normal funding method applied to the projected benefits in determining the Normal Cost and Actuarial Accrued Liability. If there is a positive (Surplus) or negative (Unfunded) difference between the Valuation of Assets and the Actuarial Accrued Liability (AAL), the amortization policy determines the amortization of the Unfunded Actuarial Accrued Liability (UAAL) on a level percentage of payroll needed to fund the UAAL or the amount of available surplus which would be distributable in any given year. This method produces an employer contribution rate consisting of amounts for (a) normal cost and (b) amortization of any unfunded (UAAL) or prefunded (PAAL) actuarial accrued liability.

These minimum contributions are recognized currently in the Statement of Changes in Fiduciary Net Position. Employees' contributions are funded and recognized currently through payroll deductions in amounts recommended by the actuary. Costs of administering the System are charged against System assets.

Total contributions to the System for fiscal year 2020 totaled $32,335,850. Employees (members in both tiers) contributed $10,011,831 and the City made (basic and cost-of-living adjustments (COLA) contributions of $22,324,019. For fiscal year 2019, total contributions to the system totaled $30,201,445. Employees (members in both tiers) contributed $9,597,068 and the City made (basic and cost-of-living adjustments (COLA) contributions of $20,604,377.

Notes to the Basic Financial Statements Continued

First Tier

Contributions aggregating $1,081,974 ($880,191 net employer and $201,783 employee) were made in fiscal year 2020, based on an actuarial valuation determined as of June 30, 2018, which became effective for the year ended June 30, 2020. For fiscal year 2020, the employer contribution rate was set at 27.77 percent; however, only a cash contribution of $880,191 was required from the City due to the difference between actual and the estimated June 30, 2018 surplus allocated to the City in the June 30, 2017 valuation for offsetting the City's contributions for the 2018/2019 plan year. Based on the June 30, 2018 actuarial valuation, the employer contributions represent 19.59 percent of the fiscal year 2020 covered payroll. Although the June 30, 2018 actuarial valuation shows the employee contribution rate of 0.00 percent for Tier 1 because there are no new Tier 1 members, the actual employee contributions represent 4.50 percent of covered payroll for those active members participating in DROP.

Contributions aggregating $1,170,409 ($969,582 net employer and $200,827 employee) were made in fiscal year 2019, based on an actuarial valuation determined as of June 30, 2017, which became effective for the year ended June 30, 2019. For fiscal year 2019, the employer contribution rate was set at 28.45 percent; however, only a cash contribution of $969,582 was required from the City due to the difference between actual and the estimated June 30, 2017 surplus allocated to the City in the June 30, 2016 valuation for offsetting the City's contributions for the 2017/2018 plan year. Based on the June 30, 2016 actuarial valuation, employer and employee contributions represented 18.72 percent and 0.00 percent, respectively, of the fiscal year 2019 covered payroll.

Second Tier

Contributions aggregating $31,253,876 ($21,443,828 net employer and $9,810,048 employee) were made in fiscal year 2020, based on an actuarial valuation determined as of June 30, 2018, which became effective for the year ended June 30, 2020. For fiscal year 2020, the employer contribution rate was set at 23.29 percent; however, only a cash contribution of $21,443,828 was required from the City due to the difference between actual and the estimated June 30, 2018 surplus allocated to the City in the June 30, 2017 valuation for offsetting the City's contributions for the 2018/2019 plan year. Employer and employee contributions represented 19.61 percent and 9.00 percent, respectively, of the fiscal year 2020 covered payroll.

Contributions aggregating $29,031,036 ($19,634,795 net employer and $9,396,241 employee) were made in fiscal year 2019, based on an actuarial valuation determined as of June 30, 2017, which became effective for the year ended June 30, 2019. For fiscal year 2019, the employer contribution rate was set at 23.07 percent; however, only a cash contribution of $19,634,795 was required from the City due to the difference between actual and the estimated June 30, 2017 surplus allocated to the City in the June 30, 2016 valuation for offsetting the City's contributions for the 2017/2018 plan year. Employer and employee contributions represented 18.77 percent and 9.00 percent, respectively, of the fiscal year 2019 covered payroll.

The City's normal contributions to the Fire and Police Retirement System for 2020 were estimated in accordance with actuarially determined requirements computed through an actuarial valuation performed as of June 30, 2018, and are shown on the following page:

Notes to the Basic Financial Statements Continued

Actuarial Rates as a Percentage of Pensionable Payroll

	Effective FY 20	Effective FY 19
Employer Normal (First Tier)	27.77%	28.45%
Employer Normal (Second Tier)	23.29%	23.07%

Normal Cost

	FY 2020		
	Tier 1	Tier 2	Total
Employee Contributions	$ 201,783	$ 9,810,048	$ 10,011,831
Employer Contribution Rate	27.77%	23.29%	
Employer Contributions	$ 1,246,352	$ 25,468,648	$ 26,715,000
Prior Year Contribution (Surplus)/Shortfall	(366,161)	(4,024,820)	(4,390,981)
Net Employer Contributions	**$ 880,191**	**$ 21,443,828**	**$ 22,324,019**
Pensionable Payroll	**$ 4,488,121**	**$109,354,437**	**$ 113,842,558**

	FY 2019		
	Tier 1	Tier 2	Total
Employee Contributions	$ 200,827	$ 9,396,241	$ 9,597,068
Employer Contribution Rate	28.45%	23.07%	
Employer Contributions	$ 1,472,713	$ 24,137,378	$ 25,610,091
Prior Year Contribution (Surplus)/Shortfall	(503,131)	(4,502,583)	(5,005,714)
Net Employer Contributions	**$ 969,582**	**$ 19,634,795**	**$ 20,604,377**
Pensionable Payroll	**$ 5,176,497**	**$104,626,693**	**$ 109,803,190**

Notes to the Basic Financial Statements Continued

4 Net Pension Liability

The components of the net pension liability of the System are as follows:

Schedules of Changes in the System's Net Pension Liability (GASB 67)

As of June 30, 2020 and 2019

(In Thousands)

	As of June 30, 2020	As of June 30, 2019
Total Pension Liability	$1,565,630	$1,504,129
Plan Fiduciary Net Position	($1,635,299)	($1,647,800)
Net Pension Liability/(Surplus)	($69,669)	($143,671)
Plan Fiduciary Net Position as a percentage of the total pension liability	104.45%	109.55%

The net pension liability was measured as of June 30, 2020 and 2019, and determined based upon the total pension liability (on a GASB 67 basis) from actuarial valuations as of June 30, 2020 and 2019, respectively.

Notes to the Basic Financial Statements Continued

Actuarial Assumptions

Key Methods and Assumptions Used in Valuation of Total Pension Liability

The total pension liability as of June 30, 2020 was determined by an actuarial valuation as of June 30, 2020, using the following actuarial assumptions, applied to all periods included in the measurement:

Valuation Date	June 30, 2020[1]
Actuarial Experience Study	3 Year Period Ending June 30, 2018
Actuarial Cost Method	Entry Age Normal Actuarial Cost Method Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are based on costs allocated as a level percentage of compensation.

Actuarial Assumptions

Inflation:	2.75%
Salary Increases:	4.00% to 12.75%, varying by service, including inflation
Discount Rate:	7.00%, net of pension plan investment expense, including inflation
Other assumptions:	See June 30, 2020 funding valuation for the service retirement rates after they have been adjusted to treat DROP participation as service retirement.
Mortality Rates:	*Healthy Members* • Pub-2010 Safety Healthy Retiree Amount-Weighted Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2018. *Beneficiaries* •Pub-2010 General Healthy Retiree Amount Weighted Mortality Table (separate tables for males and females) times 105%, projected generationally with the two-dimensional mortality improvement scale MP-2018. *Disabled Members* • Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2018. The Pub-2010 mortality tables and adjustments as shown above reasonably reflect the mortality experience as of the measurement date. These mortality tables were adjusted to future years using the generational projection to reflect future mortality improvement between the measurement date and those years.

[1] Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported. As such, the actuarial valuation dated, June 30, 2020 and 2019, will impact the contribution rates for the fiscal years ended June 30, 2022 and 2021.

Notes to the Basic Financial Statements Continued

The valuation interest rate is 7.00 percent; total salary scale increases range between 4.00% to 12.75% (include 2.75 percent for inflation plus 0.50 percent across the board salary increase plus merit and promotion increases based on completed years of service) were based on the June 30, 2018 Experience Analysis and Economic Assumptions Reports.

Actuarial valuations of an ongoing plan involve estimates of the fair value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, inflation and investment returns. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revisions as actual results are compared with past expectations and new estimates are made about the future.

GASB Statement No. 67 addresses accounting and financial reporting requirements for pension plans and redefines pension liability and expense for financial reporting purposes, and does not apply to contribution amounts for pension funding purposes.

When measuring pension liability under GASB Statement No. 67, the actuary uses the same actuarial cost method (Entry Age method) and the same type of discount rate (expected return on assets) as the System uses for funding. Note that, unrelated to the investment return assumption, the new rules use a version of the Entry Age method where the Total Pension Liability (TPL) for financial reporting purposes must be fully accrued by the time a member either enters DROP or is expected to elect the DROP. This is in contrast to the version of the Entry Age method used for funding, where the Actuarial Accrued Liability (AAL) does not have to be fully accrued until members retire from employment after participation in the DROP. Under GASB Statement No. 67, active members who are expected to enroll in the DROP in the future would report a Service Cost that is higher than the Normal Cost used for funding, while members already in the DROP would report no Service Cost even though their Normal Cost continues to accrue.

Long-Term Expected Real Rate of Return

The long-term expected rate of return on the System's investments was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and net of inflation) are developed for each major asset class. This information is combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation and 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 deducting investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the table on the following page.

The actual asset class target allocations from the Board's current adopted Asset Allocation Target Policy will be utilized in the Analysis of Actuarial Experience during the period July 1, 2015 through June 30, 2018 and for the Review of Economic Actuarial Assumptions for the June 30, 2020 Actuarial Valuation.

The actual asset class target allocations from the Board's current adopted Asset Allocation Target Policy will be utilized in the Analysis of Actuarial Experience during the period July 1, 2015 through June 30, 2018 and for the Review of Economic Actuarial Assumptions for the June 30, 2019 Actuarial Valuation.

Notes to the Basic Financial Statements Continued

Asset Class/Target Allocation/Long-term Expected Real Rate of Return Table

	As of June 30, 2020		As of June 30, 2019	
Asset Class	**Target Asset Allocation**	**Weighted Average Long-Term Expected Real Rate of Return* (Arithmetic)**	**Target Asset Allocation**	**Weighted Average Long-Term Expected Real Rate of Return* (Arithmetic)**
Large Cap U.S. Equity	15.8%	5.44%	15.8%	5.44%
Small Cap U.S. Equity	7.2%	6.18%	7.2%	6.18%
Developed International Equity	19.0%	6.54%	19.0%	6.54%
Emerging Market Equity	6.0%	8.73%	6.0%	8.73%
Private Equity	5.0%	9.27%	5.0%	9.27%
Domestic Fixed Income	10.0%	1.42%	10.0%	1.42%
High Yield Bonds	5.0%	3.64%	5.0%	3.64%
Private Debt/Direct Lending	8.0%	5.54%	8.0%	5.54%
Midstream Energy	5.0%	6.24%	5.0%	6.24%
Real Estate	15.0%	4.60%	15.0%	4.60%
Private Real Assets - Infrastructure/Land	4.0%	4.89%	4.0%	4.89%
Total	100.0%		100.0%	

* Based on June 30, 2018 Economic Study Assumptions.

Mortality Rates

Mortality rates used in the latest actuarial valuation are based on the Pub-2010 mortality tables. For healthy members the Pub-2010 Safety Healthy Retiree Amount-Weighted Mortality Table (separate tables for males and females) is used, projected generationally with the two-dimensional mortality improvement scale MP-2018. For beneficiaries the Pub-2010 General Healthy Retiree Amount-Weighted Mortality Table (separate tables for males and females) times 105% is used, projected generationally with the two-dimensional mortality improvement scale MP-2018. For members that are disabled, the Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) is used, projected generationally with the two-dimensional mortality improvement scale MP-2018.

Discount Rate

The discount rate used to measure the total pension liability was 7.00 percent as of June 30, 2020 and 2019.

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 pension 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 the System's investments was applied to all periods of projected benefit payments to determine the total pension liability as of both June 30, 2020 and June 30, 2019.

Notes to the Basic Financial Statements Continued

The table below presents the net pension liability of the Retirement System calculated using the discount rate of 7.00 percent, as of June 30, 2020 and 2019, as well as what the System's net pension liability would be if it were calculated using a discount rate that is 1.00 percent lower or 1.00 percent higher than the current rate:

Sensitivity of Net Pension Liability to Changes in the Discount Rate

As of June 30, 2020 and 2019 (In Thousands)

Net Pension Liability	**1% Decrease 6.00%**	**Current Discount Rate 7.00%**	**1% Increase 8.00%**
June 30, 2020	$146,017	($69,669)	($242,897)

Net Pension Liability	**1% Decrease 6.00%**	**Current Discount Rate 7.00%**	**1% Increase 8.00%**
June 30, 2019	$62,471	($143,671)	($309,363)

5 Net Position Restricted for Pension Benefits

Net position restricted for pension benefits is segregated into Active Members Reserve (members' accumulated contributions) and reserves established by the Board for various benefit payments.

Reserves are established by the System from member and employer contributions and the accumulation of investment income after satisfying investment and administrative expenses. Note: The reserves do not represent the present value of assets needed, as determined by actuarial valuation, to satisfy retirements and other benefits as they become due.

The System's major reserves are as follows:

ACTIVE MEMBER (EMPLOYEE) RESERVES represent the total accumulated member contributions. Additions include member contributions and investment earnings; deductions include refunds of member contributions and transfers to Employer Advance/Retired Reserves.

Notes to the Basic Financial Statements Continued

EMPLOYER ADVANCE/RETIRED RESERVES represent the total accumulated employer contributions for future retirement payments to current active members and vested terminated members, and the total accumulated transfers from Active Member Reserves and investment earnings, less payments to retirees and transfers to the DROP Reserve. Additions include contributions from the employer, transfers from Active Member Reserve, and investment earnings; deductions include payments to retirees and transfers to the DROP Reserve.

DEFERRED RETIREMENT OPTION PROGRAM (DROP) RESERVE represents funds reserved for Deferred Retirement Option Benefits accumulated by members and retirees.

POST RETIREMENT SUPPLEMENTAL BENEFIT (PRSB) RESERVE represents surplus earnings that have been allocated but not distributed to eligible participants in accordance with the City of Fresno Municipal Code Section 3-354 Post-Retirement Supplemental Benefit.

CITY SURPLUS RESERVE represents surplus earnings that have been allocated but not used as a reduction to offset or eliminate the City's pension contributions in accordance with the conditions and requirements of the City of Fresno Municipal Code Section 3-354 Post-Retirement Supplemental Benefit.

Interest is allocated at an actuarially determined interest rate as approved by the Board and is credited monthly to the Active Member Reserve and the Employer Advance/ Retired Reserves. Active members in the Deferred Retirement Option Program accrue interest on their accumulated DROP accounts monthly at an interest rate annually adopted by the Board.

The amount of reserves for the years ended June 30, 2020 and 2019, consisted of the following:

Reserves Table as of FY 2020 and FY 2019

(In Thousands)

	2020	2019
Employer Advance/Retired Reserves	$ 1,288,740	$ 1,314,392
Active Member (Employee) Reserves	195,375	186,720
DROP Reserves	148,782	144,291
PRSB Reserves	1,728	2,084
City Surplus Reserves	675	313
Net Position Restricted for Pension Benefits	**$ 1,635,300**	**$ 1,647,800**

Notes to the Basic Financial Statements Continued

6 Fair Value Measurements

In accordance with GASB Statement No. 72, *Fair Value Measurement and Application*, which addresses accounting and financial reporting issues related to fair value measurements and disclosures. The System's investments are measured and reported within the fair value hierarchy established by generally accepted accounting principles. The fair value hierarchy, which has three levels, is based on the valuation inputs used to measure an asset's fair value and gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1 measurements) and the lowest priority to unobservable inputs (level 3 measurements). The three levels of the fair value hierarchy are as follows:

Level 1: Inputs are based on quoted prices for identical assets or liabilities in an active market that the System can access. An active market for the asset or liability is one in which transactions for the asset or liability occur with sufficient frequency and volume to provide pricing information on an ongoing basis. A quoted price in an active market usually provides the most reliable evidence of fair value and is generally used without adjustment if available. This classification includes public equities with observable market prices.

Level 2: Inputs that are observable either directly or indirectly but are not Level 1 inputs. Level 2 inputs include quoted prices for similar instruments, broker quotes, or observable inputs that directly impact value such as interest rates, prepayment speeds, and credit risk. Pricing inputs, including broker quotes, are generally those other than exchange quoted prices in active markets, and fair values are determined through the use of models or other valuation methodologies. For investments in funds where there is an ability to redeem such investments at the Net Asset Value (NAV) per share (or its equivalent) at the measurement date or in the near term, the fair value of the investment is generally categorized as Level 2.

Level 3: Inputs that are unobservable. Level 3 inputs are generally used in situations where there is little, if any, market activity for the investment. These inputs into the determination of fair value require significant management judgment or estimation. Due to the inherent uncertainty of these estimates, these values may differ significantly from the values that would have been used had a ready market for these investments existed. Investments that are included in this category generally include public entities and other fixed income securities where there is an inability to redeem such investments at the NAV per share (or its equivalent) at the measurement date or in the near term.

The tables on the following pages show the fair value leveling of the System's investments as of June 30, 2020 and 2019.

Notes to the Basic Financial Statements Continued

Investment Type	June 30, 2020	Fair Value Measurements Using: Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments by Fair Value Level				
Debt Securities				
Asset Backed Securities	$ 16,168,619	$ —	$ 16,168,619	$ —
Commercial Mortgage-Backed	10,360,786	—	10,360,786	—
Corporate Bonds	143,051,962	—	143,051,962	—
Corporate Convertible Bonds	2,618,523	—	2,618,523	—
Government Agencies	3,148,623	—	3,148,623	—
Government Bonds	10,709,410	—	10,709,410	—
Government Mortgage Backed Securities	46,573,113	—	46,573,113	—
Gov't-issued Commercial Mortgage-Backed	7,036,172	—	7,036,172	—
Index Linked Government Bonds	1,878,336	—	1,878,336	—
Municipal/Provincial Bonds	3,828,361	—	3,828,361	—
Non-Government Backed C.M.O.s	952,997	—	952,997	—
Total Debt Securities	**246,326,902**	**—**	**246,326,902**	**—**
Equity Securities				
Consumer Discretionary	75,648,466	75,648,466	—	—
Consumer Staples	22,584,945	22,584,945	—	—
Energy	74,289,855	74,289,834	21	—
Financials	78,602,115	78,602,115	—	—
Health Care	48,762,167	48,762,167	—	—
Industrials	68,923,858	68,923,858	—	—
Information Technology	74,832,617	74,832,617	—	—
Materials	25,952,307	25,952,307	—	—
Real Estate	10,436,943	10,436,943	—	—
Telecommunication Services	38,341,478	38,341,478	—	—
Utilities	6,485,620	6,485,620	—	—
Total Equity Securities	**524,860,371**	**524,860,350**	**21**	**—**
Securities Lending	**65,582,976**	**65,582,976**	**—**	—
Short-Term Investments	**16,741,665**	**11,348,129**	**5,393,536**	—
Private Real Estate Holdings	**3,358,396**	—	**3,358,396**	—
Total Investments by Fair Value Level	**$ 856,870,310**			
Investments Measured at the Net Asset Value (NAV)				
Commingled Fund - Equities	$ 479,474,345			
Commingled Fund - Real Estate	97,907,053			
Commingled Fund - Infrastructure	68,754,182			
Private Real Estate Funds	60,370,408			
Private Debt/Private Credit	116,178,063			
Private Equity	15,362,596			
Total Investments Measured at NAV	**838,046,647**			
Total Investments Measured at Fair Value and NAV	**$1,694,916,957**			
Investment Derivative Instruments*				
Deb Securities - Futures	$ 4,126,659	$ 4,126,659	$ —	$ —
Deb Securities - Options	$ 4,410	4,410	—	—
Short Term Investments - Swaps	5,614	—	5,614	—
Total Investment Derivative Instruments	**$ 4,136,683**	**$ 4,131,069**	**$ 5,614**	**$ —**

* Short-term derivative instruments included on page 51 are excluded here.

Notes to the Basic Financial Statements Continued

Investment Type	June 30, 2019	Fair Value Measurements Using: Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments by Fair Value Level				
Debt Securities				
Asset Backed Securities	$ 7,803,425	$ —	$ 7,803,425	$ —
Commercial Mortgage-Backed	4,481,136	—	4,481,136	—
Corporate Bonds	154,269,165	—	154,269,165	—
Corporate Convertible Bonds	6,844,396	—	6,527,018	317,378
Government Agencies	2,007,483	—	2,007,483	—
Government Bonds	53,202,623	—	53,202,623	—
Government Mortgage Backed Securities	75,114,987	—	75,114,987	—
Gov't-issued Commercial Mortgage-Backed	769,277	—	769,277	—
Index Linked Government Bonds	—	—	—	—
Municipal/Provincial Bonds	5,937,597	—	5,937,597	—
Non-Government Backed C.M.O.s	484,620	—	484,620	—
Total Debt Securities	**310,914,709**	**—**	**310,597,331**	**317,378**
Equity Securities				
Consumer Discretionary	70,853,522	70,849,495	4,027	—
Consumer Staples	31,821,567	30,869,659	951,908	—
Energy	14,916,359	14,772,640	143,719	—
Financials	108,207,675	108,207,675	—	—
Health Care	41,517,431	41,517,431	—	—
Industrials	85,445,176	85,445,176	—	—
Information Technology	61,188,194	61,188,194	—	—
Materials	26,778,840	26,778,840	—	—
Real Estate	86,858,784	86,858,784	—	—
Telecommunication Services	25,526,732	25,526,732	—	—
Utilities	8,030,537	8,030,537	—	—
Total Equity Securities	**561,144,817**	**560,045,163**	**1,099,654**	**—**
Securities Lending	**98,294,737**	**98,294,737**	**—**	**—**
Short-Term Investments	**24,168,210**	**13,131,794**	**11,036,416**	**—**
Private Real Estate Holdings	**3,358,395**	**—**	**3,358,395**	**—**
Total Investments by Fair Value Level	**$ 997,880,868**			
Investments Measured at the Net Asset Value (NAV)				
Commingled Fund - Equities	$ 334,380,718			
Commingled Fund - Real Estate	139,045,013			
Commingled Fund - Fixed Income	29,237,015			
Commingled Fund - Infrastructure	67,438,951			
Private Real Estate Funds	42,981,954			
Private Debt/Private Credit	91,557,017			
Private Equity	9,776,753			
Total Investments Measured at NAV	**714,417,421**			
Total Investments Measured at Fair Value and NAV	**$1,712,298,289**			
Investment Derivative Instruments*				
Equities - Rights/Warrants	$ 48,380	$ 48,374	$ 6	$ —
Equities - Stapled Securities	—	—	—	—
Total Investment Derivative Instruments	**$ 48,380**	**$ 48,374**	**$ 6**	**$ —**

* Short-term derivative instruments included on page 51 are excluded here.

Notes to the Basic Financial Statements Continued

Commingled equity and real estate funds are valued based on NAV reported by the investment manager, which are generally calculated based on the last reported sale price of the underlying assets held by such funds. Direct lending funds are typically structured as limited partnerships and limited liability companies. Since there is no readily available market for these investments in limited partnerships and limited liability companies, such investments are stated at fair value as estimated in an inactive market. These investments include securities of companies that may not be immediately liquid, such as private debt securities, real estate or other assets. The valuations of these investments are based upon values provided by the investment managers, based on the guidelines established with the investment managers and in consideration of other factors related to the System's interests in these investments.

Investments that are measured at fair value using the net asset value per share (NAV or its equivalent) as a practical expedient are not classified in the fair value hierarchy. In these instances where inputs used to measure fair value fall into different levels in the fair value hierarchy, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation. The System's assessment of the significance of particular inputs to these fair value measurements requires judgment and considers factors specific to each asset or liability.

Equity and derivative securities classified in Level 1 are valued using prices quoted in active markets for those securities. Equity and debt securities classified in Level 2 and Level 3 are using either a bid evaluation or a matrix pricing technique. Bid evaluations may include market quotations, observable market based inputs and unobservable inputs (i.e., extrapolated data, proprietary models, and indicative quotes). Matrix pricing is used to value securities based on the securities relationship to benchmark quoted prices. Investment derivative instruments classified as Level 2 and 3 are valued using market approaches that consider, as applicable, benchmark interest rates or foreign exchange rates.

Real estate assets classified in Level 2 are the System's private real estate investments which are valued using independent external appraisers. The System's policy is to perform independent appraisals of the property every three years. The appraisals include a complete property and market inspection and analysis by designated Members of the Appraisal Institute (MAI). The appraisals are performed using generally accepted valuation approaches applicable to the property type. Calculations used in the System's independent appraisals are generally based on a discounted cash flow analysis.

Investments in Entities That Calculate Net Asset Value Per Share

The fair value measurement of investments in commingled equity, real estate and direct lending funds are valued based on the investments' net asset value (NAV) per share (or its equivalent) reported by the investment manager, which are generally calculated based on the last reported sale price of the underlying assets held by such funds. These include funds that are structured as limited partnerships and limited liability companies.

Since there is no readily available market for investments in limited partnerships and limited liability companies, such investments are stated at fair value as estimated in an inactive market. These investments include securities of companies that may not be immediately liquid, such as private debt securities and real estate or other assets.

Notes to the Basic Financial Statements Continued

The valuations of these investments are based upon values provided by the investment managers, and in consideration of other factors, including guidelines established with those investment managers, related to the System's interests in these investments.

Such fair value measurements are shown in the tables below as of June 30, 2020 and 2019.

City Of Fresno Fire and Police Retirement System

Investments Measured at the NAV
As of June 30, 2020

Investment Type	Fair Value	Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Commingled Fund - Equities	$ 479,474,345	$ —	Daily	None
Commingled Fund - Real Estate	97,907,053	65,508,012	Quarterly	45-90 Days
Commingled Fund - Infrastructure	68,754,182	—	Not Eligible	N/A
Private Real Estate Funds	60,370,408	43,137,396	Not Eligible	N/A
Private Debt/Private Credit	116,178,063	54,218,110	Not Eligible	N/A
Private Equity	15,362,596	83,105,903	Not Eligible	N/A
Total investments measured at the NAV	$ 838,046,647	$ 245,969,421		

City Of Fresno Fire and Police Retirement System

Investments Measured at the NAV
As of June 30, 2019

Investment Type	Fair Value	Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Commingled Fund - Equities	$ 334,380,718	$ —	Daily	None
Commingled Fund - Real Estate	139,045,013	—	Quarterly	45-90 Days
Commingled Fund - Fixed Income	29,237,015	—	Daily	None
Commingled Fund - Infrastructure	67,438,951	—	Not Eligible	N/A
Private Real Estate Funds	42,981,954	49,412,015	Not Eligible	N/A
Private Debt/Private Credit	91,557,017	51,013,679	Not Eligible	N/A
Private Equity	9,776,753	88,221,925	Not Eligible	N/A
Total investments measured at the NAV	$ 714,417,421	$ 188,647,619		

On the following page is an explanation of the investment types listed above.

Notes to the Basic Financial Statements Continued

The investment types listed in the tables on the preceding page were measured at the NAV as follows.

(1) Commingled equity funds are highly liquid and can be redeemed within short-term periods of time. The System's investments of this type consist of institutional investment funds - one international ACWIexUS equity fund that is diversified across developed and emerging market countries and sectors and two domestic large cap equity index funds (S&P 500 Index and Russell 1000 Index). The fair value of these investment types has been determined using the NAV per share of the investments.

(2) Commingled real estate fund: The System's two commingled real estate funds are a core investment strategy designed to deliver a relatively high level of current income combined with moderate appreciation potential. It is comprised of institutional quality office, retail, residential and industrial investments in major markets throughout the U.S. The redemption frequency of the real estate fund is quarterly, if liquidity is available, with a notice of redemption 45 days before the end of a quarter.

(3) Commingled fixed income fund: The System's commingled fixed income fund is fairly liquid and can be redeemed within short periods of time. This is an institutional quality fund that invests in high, medium, and low grade instruments such as US treasuries, investment grade corporates, securitized products, and derivatives. The fund is designed to provide current income through tactical positioning. The fair value of these investment types has been determined using the NAV per share of the investments.

(4) Private real estate funds: The System's six private real estate funds are designed to act as a diversifier and alpha generator to the core real estate portfolio. Investments are made in middle-market assets across various domestic and international regions and sectors such as industrial, multifamily, office, and retail. The strategies focus on identifying investments with pricing dislocations that can be renovated, repurposed, and exited at opportunistic levels. The investment period is generally 3-5 years with a lifespan of 10-12 years.

(5) Private Debt/Private Credit - direct lending funds: The System's three direct lending funds are each invested through a master-feeder structure, on a leveraged basis primarily in senior secured loans of private U.S. lower-middle-market companies. Strategies employ a capital preservation focus and structured investments with strong covenant provisions to reduce associated risks, underwriting multiple cushions to provide downside protections. Investment period is generally 3-5 years with reinvestment of committed capital.

(6) Commingled infrastructure funds: The System's two infrastructure funds invest in core assets that generate long-term stable cash yields, have modest price appreciation, and provide inflation protection. Types of assets include energy (water, wind, and solar, etc.), transportation (toll roads and bridges, airports, and seaports, etc.), and social (hospitals, prisons, and schools, etc.). Investments are located domestically as well as in the Organization for Economic Co-operation and Development (OECD) countries internationally. Each fund has lockup periods of 4 years and, after that initial period, redemptions can be requested on a quarterly basis, if liquidity is available.

Notes to the Basic Financial Statements Continued

(7) Private Equity Funds: The System's private equity fund represents investments in privately owned companies that are not listed on public market exchanges. They are typically accessed through partnerships and managed by external general partners. The system's one private equity fund is composed of primaries, secondaries, and co-investments, split between North America and international markets. Most investments are sourced from the small-to-mid market investment universe

7 Deposits and Investments

The System's investment guidelines reflect the duties imposed by an investment standard known as the "prudent expert rule." The prudent expert rule establishes a standard for all fiduciaries which includes anyone who has discretionary authority with respect to the System's investments.

Northern Trust serves as custodian of the System's investments. The System's asset classes include U.S. Equity, International Equity, Emerging Market Equity, U.S. Fixed Income, and Real Estate. Any class may be held in direct form, pooled form, or both. The System has fifteen external investment managers, managing eighteen individual portfolios. Investments as of June 30, 2020 and 2019, consist of the following:

Investments at Fair Value as of June 30, 2020 and 2019

(In Thousands)

	2020	2019
Investments at Fair Value		
Domestic Equity	$ 599,330	$ 465,966
International Developed Market Equities	278,817	297,495
International Emerging Market Equities	57,459	56,347
Government Bonds	73,174	137,032
Corporate Bonds	179,531	205,702
Alternatives	266,776	168,772
Real Estate	161,636	258,569
Short-Term Investments	16,747	24,168
Total Investments at Fair Value	**$ 1,633,470**	**$ 1,614,051**

Notes to the Basic Financial Statements Continued

The Board, through its Investment Policy Statement, provides guidelines for investments and established the following target allocations with a minimum and maximum range for each of these asset classes:

Asset Class Minimum Target and Maximum Allocations

	FY 2020			FY 2019		
Asset Class	**Minimum**	**Target**	**Maximum**	**Minimum**	**Target**	**Maximum**
Domestic Equities						
Large Cap	10.0%	15.8%	26.0%	13.0 %	17.0 %	27.0 %
Small Cap	2.0%	7.2%	12.0%	2.0 %	8.0 %	9.0 %
International Equities						
Developed Markets	14.0%	19.0%	24.0%	13.0 %	20.0 %	27.0 %
Emerging Markets	3.0%	7.0%	9.0%	0.0 %	7.0 %	10.0 %
Fixed Income						
Core Fixed Income	7.0%	10.0%	15.0%	4.0 %	10.0 %	19.0 %
High Yield Bonds	4.0%	5.0%	12.0%	3.0 %	5.0 %	12.0 %
Real Estate						
Core Real Estate	7.0%	11.0%	15.0%	5.0 %	10.0 %	20.0 %
Value Add Real Estate/REITs	2.0%	4.0%	6.0%	1.0 %	5.0 %	9.0 %
Alternatives						
Infrastructure	2.0%	4.0%	6.0%	0.0 %	2.0 %	10.0 %
Midstream Energy (MLP's)	2.0%	5.0%	8.0%	0.0 %	5.0 %	10.0 %
Private Equity	0.0%	4.0%	10.0%	0.0 %	3.0 %	10.0 %
Private Debt	4.0%	8.0%	12.0%	0.0 %	8.0 %	10.0 %
Short-Term Investments	0.0%	0.0%	0.0%	0.0 %	0.0 %	0.0 %
		100%			**100%**	

Allowable securities must meet the reporting requirements of the Securities and Exchange Commission and must meet a "prudent expert" standard for investing. In no case may the System have five percent (5%) or more of System net position invested in any one organization.

The Retirement Board's investment policies and guidelines permit investment in numerous specified asset classes to take advantage of the non correlated economic behavior of diverse asset classes. The result is a well-diversified portfolio.

Custodial Credit Risk

Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, the System will not be able to recover the value of its investment or collateral securities that are in the possession of another party. The Retirement System's investment securities are not exposed to custodial credit risk since all securities are registered in the System's name and held by the System's custodial bank.

Custodial credit risk for deposits is the risk that, in the event of the failure of the depository financial institution, the System will not be able to recover its deposits or will not be able to recover collateral securities that are in the possession of an outside party. Any cash associated with the System's investment portfolios not invested at the end of a day is temporarily swept overnight to the Northern Trust Collective Short-Term Investment Fund.

Notes to the Basic Financial Statements Continued

That portion of the System's cash held by the City in a Trust account as part of the City's cash investment pool totaled $1,540,099 and $2,704,791 at June 30, 2020 and 2019, respectively. Accordingly, the System's investments in the pool are held in the name of the City and are not specifically identifiable.

Disclosure of the legal and contractual provisions of the City's investment policy and carrying amounts by type of investments may be found in the notes to the City's separate Comprehensive Annual Financial Report for the fiscal year ended June 30, 2020.

Credit risk associated with the System's debt securities is identified by their ratings in the table below. Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. The System has no general policy on credit and interest rate risk. The System limits its investments in below investment grade bonds and monitors the interest rate risk inherent in its portfolio by measuring the duration of its portfolio. The average duration of the System's debt portfolios in years is also listed in the following table:

Credit and Interest Rate Risk

	2020			2019		
Type of Investment	**Fair Value**	**Credit Quality**	**Duration**	**Fair Value**	**Credit Quality**	**Duration**
Asset Backed Securities	$ 16,168,619	AA+	2.07	$ 7,803,425	AA+	0.18
Commercial Mortgage-Backed	10,360,786	A-	6.58	4,481,136	A+	5.42
Corporate Bonds	143,051,962	BB+	6.71	154,269,165	BB+	5.11
Corporate Convertible Bonds	2,618,523	CC	4.43	6,844,396	CC	3.54
Fixed Income Derivatives - Futures	4,126,659	0.00	0.00	—	0	0.00
Fixed Income Derivatives - Options	4,410	0.00	0.00	—	0	0.00
Funds - Corporate Bond	—	—	—	29,237,015	—	—
Non-Government backed C.M.O.s	952,997	B-	1.64	484,619	CC	2.91
Rights & Warrants	—	—	—	6	CC	—
Convertible Equity	1,288,062	BB+	14.92	1,095,627	BBB-	5.05
Common Stock	50,136	0	0.00	146,446	BB-	0.00
Preferred Stock	908,489	BB+	0.00	1,340,677	BB+	0.14
Government Agencies	3,148,623	AAA	7.88	2,007,483	AAA	8.00
Government Bonds	10,709,410	AAA	12.33	53,202,623	AAA	6.31
Gov't Issued Commercial Mortgage Backed Securities	7,036,172	AAA	7.30	769,278	AAA	7.42
Government Mortgage Backed Securities	46,573,113	AAA	2.44	75,114,987	AAA	2.60
Municipal/Provincial Bonds	3,828,361	A+	10.21	5,937,597	A	10.17
Index Linked Government Bonds	1,878,336	AAA	1.34	—	—	—
Total Credit Risk Fixed Income	$ 252,704,658			$ 342,734,480		

Notes to the Basic Financial Statements Continued

Per Section 3.5.f.i. of the System's Investment Policy Statement, no more than 15 percent of an investment manager's fixed income portfolio may be invested in below investment grade rated securities (BB or B rated bonds). Therefore, at least 85 percent of the manager's fixed income portfolio must be invested in investment grade securities. Intermediate Bond portfolios shall maintain an average credit quality of A+ or better.

High yield fixed income portfolios, in accordance with Section 3.5.f.ii. of the System's Investment Policy Statement, shall maintain an average credit quality rating equal to or higher than that of the Barclays US Corporate High Yield Index. Based on the Barclays US Corporate High Yield Index, a high yield manager's portfolio shall have a constraint of the benchmark weight plus five percent (5%) in bonds rated Caa1/CCC+ or lower with non-rated bonds being limited to five percent (5%) of the portfolio with both limits subject to maintaining the average portfolio credit quality requirement of the Barclays US Corporate High Yield index. No more than 25 percent of a high yield manager's portfolio may be invested in foreign securities; within this limit, a manager may allocate up to 20 percent in emerging market government securities including both on-US dollar denominated securities and US dollar denominated Yankee securities and up to 15 percent of the portfolio may be invested in non-US dollar denominated securities.

High yield bond portfolios may hold up to the benchmark weight plus five percent (5%) of assets in Rule 144A bond issues with or without registration rights. No more than 10 percent of the high yield manager's portfolio may be invested in convertibles or preferreds, and no more than 20 percent may be invested in securitized bank debt. No single security and/or issuer can represent more than five percent (5%) of the fair value of a portfolio at the time of purchase, and no single industry can represent more than 25 percent of the fair value of the account at the time of purchase.

Firms that manage fixed income portfolios will continually monitor the risk associated with their fixed income investments. They will be expected to report, as a component of their quarterly report, a risk/reward analysis of the management decisions relative to their benchmarks. Statistics that relate performance variance to effective duration decisions will be included in each quarterly report.

Concentration Risk

The investment portfolio as of June 30, 2020 and 2019, contained no concentration of investments in any one entity (other than those issued or guaranteed by the U.S. Government) that represented five percent (5%) or more of the total investment portfolio or fiduciary net position.

Foreign Currency Risk

Foreign Currency Risk is the risk that changes in foreign exchange rates will adversely affect the fair value of an investment or deposit. The System has no general investment policy with respect to foreign currency risk. The System's investment policy guidelines allow international developed and emerging equity managers to hedge their currency risks in foreign countries through the purchase of derivatives. Used as a defensive measure and in an effort to control the risks associated with international portfolios, international equity investment managers are permitted to invest in forward currency contracts, swaps, currency futures, and exchanged-traded index futures that represent broad equity exposure to countries represented in their respective benchmark index.

The positions shown on the following page represent the System's exposure to foreign currency risk as of June 30, 2020 and 2019.

Notes to the Basic Financial Statements Continued

Foreign Currency Risk Exposure

As of June 30, 2020

	Base Currency	Country	Equities / Fixed Income	Futures - Domestic Fixed Income	Options & Swaps	Cash & Cash Equivalents	Total
AED	United Arab Emirates Dirham	United Arab Emirates	$ 40,250	$ —	$ —	$ —	$ 40,250
ARS	Argentine Peso	Argentina	64,352	—	—	5,470	69,822
AUD	Australian Dollar	Australia	6,661,376	—	—	—	6,661,376
BRL	Brazilian Real	Brazil	3,730,276	—	—	102	3,730,378
CAD	Canadian Dollar	Canada	11,355,996	—	—	—	11,355,996
CHF	Swiss Franc	Switzerland	18,582,582	—	—	—	18,582,582
CLP	Chilean Peso	Chile	406,985	—	—	—	406,985
CNY	Chinese Yuan Renminbi	China	3,672,827	—	—	38,349	3,711,176
CZK	Czech Koruna	Czech Republic	4,006	—	—	123	4,129
DKK	Danish Krone	Denmark	9,519,666	—	—	—	9,519,666
EGP	Egyptian Pound	Egypt	23,248	—	—	1,389	24,637
EUR	Euro	Europe	64,335,672	—	—	(46,303)	64,289,369
GBP	British Pound Sterling	United Kingdom	24,791,759	—	—	—	24,791,759
HKD	Hong Kong Dollar	Hong Kong	43,215,368	—	—	218,634	43,434,002
HUF	Hungarian Forint	Hungary	196,939	—	—	34,450	231,389
IDR	Indonesian Rupiah	Indonesia	1,251,436	—	—	—	1,251,436
ILS	New Israeli Shekel	Israel	455,452	—	—	—	455,452
INR	Indian Rupee	India	9,489,174	—	—	3,888	9,493,062
JPY	Japanese Yen	Japan	39,552,879	—	—	—	39,552,879
KRW	South Korean Won	South Korea	17,059,555	—	—	2,201	17,061,756
MXN	Mexican Peso	Mexico	1,680,090	—	—	17,795	1,697,885
MYR	Malaysian Ringgit	Malaysia	242,186	—	—	689	242,875
NOK	Norwegian Krone	Norway	600,001	—	—	—	600,001
PEN	Peruvian Nuevo Sol	Peru	3,972	—	—	1,167	5,139
PHP	Philippine Peso	Philippines	450,256	—	—	10	450,266
PLN	Polish Zloty	Poland	221,843	—	—	—	221,843
QAR	Qatari Rial	Qatar	194,696	—	—	—	194,696
SEK	Swedish Krona	Sweden	7,216,874	—	—	—	7,216,874
SGD	Singapore Dollar	Singapore	2,499,782	—	—	—	2,499,782
THB	Thai Baht	Thailand	669,675	—	—	—	669,675
TRY	Turkish Lira	Turkey	1,280,204	—	—	—	1,280,204
TWD	New Taiwan Dollar	Taiwan	16,163,291	—	—	508	16,163,799
USD	United States Dollar	United States	993,538,568	4,126,659	10,024	14,866,560	1,012,541,811
ZAR	South African Rand	South Africa	5,728,129	—	—	—	5,728,129
Total Equities (In USD)			**1,284,899,365**	**4,126,659**	**10,024**	**15,145,032**	**1,304,181,080**
Total Non-USD Equities (In USD)			**$ 291,360,797**	**$ —**	**$ —**	**$ 278,472**	**$ 291,639,269**

Notes to the Basic Financial Statements Continued

Foreign Currency Risk Exposure

As of June 30, 2019

	Base Currency	Country	Equities / Fixed Income	Foreign Currency Contracts	Rights & Warrants	Cash & Cash Equivalents	Total
AED	United Arab Emirates Dirham	United Arab Emirates	$ 147,721	$ —	$ —	$ 1,512	$ 149,233
ARS	Argentine Peso	Argentina	106,138	—	—	—	106,138
AUD	Australian Dollar	Australia	10,869,883	—	—	—	10,869,883
BRL	Brazilian Real	Brazil	6,091,343	19,817	—	(12,100)	6,099,060
CAD	Canadian Dollar	Canada	13,996,944	—	—	—	13,996,944
CHF	Swiss Franc	Switzerland	22,581,211	—	—	(166,954)	22,414,257
CLP	Chilean Peso	Chile	397,175	—	7,831	46	405,052
CNY	Chinese Yuan Renminbi	China	2,549,577	—	—	77,483	2,627,060
CZK	Czech Koruna	Czech Republic	4,526	—	—	—	4,526
DKK	Danish Krone	Denmark	8,032,701	—	—	—	8,032,701
EGP	Egyptian Pound	Egypt	138,068	—	—	—	138,068
EUR	Euro	Europe	77,916,754	—	40,544	(379,850)	77,577,448
GBP	British Pound Sterling	United Kingdom	44,151,870	—	—	(116,139)	44,035,731
HKD	Hong Kong Dollar	Hong Kong	26,858,338	—	—	12,510	26,870,848
HUF	Hungarian Forint	Hungary	485,394	—	—	—	485,394
IDR	Indonesian Rupiah	Indonesia	1,183,045	—	—	30,118	1,213,163
ILS	New Israeli Shekel	Israel	1,401,160	—	—	—	1,401,160
INR	Indian Rupee	India	7,281,805	—	—	16,078	7,297,883
JPY	Japanese Yen	Japan	44,311,010	—	—	—	44,311,010
KRW	South Korean Won	South Korea	12,724,717	—	—	(462,920)	12,261,797
MXN	Mexican Peso	Mexico	957,311	—	—	—	957,311
MYR	Malaysian Ringgit	Malaysia	805,619	—	—	2,133	807,752
NOK	Norwegian Krone	Norway	1,470,179	—	—	—	1,470,179
PEN	Peruvian Nuevo Sol	Peru	8,485	—	—	1,159	9,644
PHP	Philippine Peso	Philippines	519,933	—	—	198	520,131
PLN	Polish Zloty	Poland	1,330,886	—	—	—	1,330,886
QAR	Qatari Rial	Qatar	370,364	—	—	—	370,364
SEK	Swedish Krona	Sweden	9,570,396	—	—	—	9,570,396
SGD	Singapore Dollar	Singapore	4,753,780	—	—	—	4,753,780
THB	Thai Baht	Thailand	1,548,503	—	—	—	1,548,503
TRY	Turkish Lira	Turkey	1,704,414	—	—	—	1,704,414
TWD	New Taiwan Dollar	Taiwan	9,109,236	—	—	838	9,110,074
USD	United States Dollar	United States	948,389,095	1,166,513	6	52,709,840	1,002,265,454
ZAR	South African Rand	South Africa	6,992,875	916,880	—	(916,880)	6,992,875
Total Equities (In USD)			**1,268,760,456**	**2,103,210**	**48,381**	**50,797,072**	**1,321,709,119**
Total Non-USD Equities (In USD)			**$ 320,371,361**	**$ 936,697**	**$ 48,375**	**$ (1,912,768)**	**$ 319,443,665**

Notes to the Basic Financial Statements Continued

Per Section 3.5.e. of the System's Investment Objectives and Policy Statement, assets in international equity portfolios shall consist of liquid, publicly traded equity and equity like securities traded on major stock exchanges as well as cash and cash equivalents as necessary. Securities will be primarily composed of foreign ordinary shares and depository receipts (American Depository Receipts (ADRs) and Global Depository Receipts (GDRs) including ADRs and GDRs that are 144A securities). Securities that are 144A securities, including ADR and GDR 144A securities, are authorized investments which in aggregate cannot exceed 10 percent of the portfolio. Primarily large capitalization securities may be held, although investments in small and mid capitalization securities are also allowed. Firms will continually monitor their country, currency, sector and security selection risks associated with their international portfolios. All of the risks will be included in the manager's quarterly reports and performance attribution based on these factors will also be included.

The System's complete Investment Objectives and Policy Statement can be found on the System's website at www.CFRS-CA.org or by contacting the Retirement Office at 2828 Fresno Street, Suite 201, Fresno, CA 93721.

Rate of Return

For the fiscal years ended June 30, 2020 and 2019, the annual money-weighted rate of return on the assets of the System, net of investment expense, was 1.26 percent and 5.2 percent, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for timing of cash flows and the changing amounts actually invested.

8 Derivatives

The Retirement Board has authorized certain investment managers to invest in or otherwise enter into transactions involving derivative financial instruments when, in the judgment of management, such transactions are consistent with the investment objectives established for a specific investment manager's assignment. The acceptable investment purposes for the use of derivatives are as follows:

a. Mitigation of risk (or risk reduction).

b. A useful substitute for an existing, traditional investment. In certain circumstances it may be cheaper, quicker or easier to invest in a derivative instrument or security rather than transacting in cash or in the traditional security market.

c. To provide investment value to the portfolio while being consistent with the System's overall and specific investment policies.

d. To obtain investment exposure which is appropriate for the manager's investment strategy and the System's investment guidelines, but could not be made through traditional investment securities.

The Retirement Board monitors and reviews each investment manager's securities and derivative position as well as the manager's performance relative to established benchmark rates of return and risk measures. In management's opinion, derivative activities must be evaluated within the context of the overall portfolio performance and cannot be evaluated in isolation.

Notes to the Basic Financial Statements Continued

Allowable derivative financial instruments held by the System include stable and well-structured mortgage collateralized mortgage obligations (CMOs); centrally cleared instruments including, but not limited to, futures, swaps and options; and forwards including currency forwards. Derivative investments with allocation limits include mortgage derivatives (interest only and principal only CMOs); non centrally cleared derivatives; caps and floors; and inverse floating rate notes and bonds. Allocation limits will be determined and specified in portfolio guidelines with individual investment managers based on the objectives and risk tolerances of a given strategy.

Cash securities containing derivative features include callable bonds, structural notes, and collateralized mortgage obligations (CMOs). These instruments are generally traded in over-the-counter bond markets.

Financial instruments whose value is dependent upon a contractual price or rate relative to one or more reference prices or rates, applied to a notional amount, including interest rate futures, options, swaps and caps, and foreign currency futures and forward contracts. Some of these instruments are exchange-traded and others are traded over-the-counter (OTC).

Market Risk

Market risk is the risk of change in fair value of an instrument in response to changes in a market price or index. While all investments are subject to market risk, derivatives often have a higher degree of market risk than other types of investment instruments. Values of cash securities containing derivative features are often more susceptible to market risk than other types of fixed income securities because the amounts and/or timing of their scheduled cash flows may fluctuate under changing market conditions, according to their contractual terms. For other types of derivatives, amounts of contractual cash flows may be either positive or negative depending upon prevailing market conditions relative to the reference prices or rates, and thus the values of such instruments may be positive or negative, despite the fact that little or no cash is initially exchanged to enter into such contracts.

Credit Risk

Credit risk of cash securities containing derivative features is based upon the credit worthiness of the issuers of such securities. The Retirement Board establishes minimum credit requirements for such securities. The other derivative instruments described above are subject to credit risk to the extent their value is a positive market fair value, and the counterparty to such contract fails to perform under the terms of the instrument.

Exchange traded derivatives are generally considered to be of lower credit risk than OTC derivatives due to the exchange margin requirements. Equity Index Swaps are derivatives and represent an agreement between two parties to swap two sets of equity values. Equity Futures are contracts used to replicate an underlying stock or stock market index. These futures can be used for hedging against an existing equity position, or for speculating on future movement of the index.

Notes to the Basic Financial Statements Continued

As of June 30, 2020 and 2019, the System held a total fair value of $5,563,650 and $3,830,755, respectively, in derivative holdings. These holdings consisted of Rights/ Warrants, and Foreign Currency Forwards and Futures designed to synthetically create equity returns and are held as components of the System's international equity investments, and a variety of ACWIexUS index related futures as components of the System's investments in ACWIexUS Index Funds. Holdings also consist of futures – interest rate contracts, options and swaps held as components of the System's absolute return fixed income strategy. These derivatives are used for the purpose of synthetically creating equity returns, synthetically creating floating rates and to buy or sell credit protection on the assets.

There is no net counterparty exposure for which there is a positive replacement cost to the fund. The details of these derivative holdings are as follows:

Derivative Type:	**FY 2020**		**FY 2019**	**FY 2020 - FY 2019**
	Notional Amount	**Fair Value**	**Fair Value**	**Change in Fair Value**
Foreign Currency Forward	$—	$—	$2,103,210	$ (2,103,210)
Future Contracts - Domestic Fixed Income	(4,126,659)	4,126,659	—	4,126,659
Future Contracts - International Equity Index	—	1,415,710	1,670,037	(254,327)
Options/Swaption	—	4,410	—	4,410
Rights & Warrants	—	11,257	57,508	(46,251)
Swaps	—	5,614	—	5,614
	Total	**$5,563,650**	**$3,830,755**	

Derivative Type:	**FY 2019**		**FY 2018**	**FY 2019 - FY 2018**
	Notional Amount	**Fair Value**	**Fair Value**	**Change in Fair Value**
Foreign Currency Forward	$(2,091,161)	$2,103,210	$1,336,264	$ 766,946
Future Contracts - International Equity Index	—	1,670,037	1,494,532	175,505
Rights & Warrants	—	57,508	22,531	34,977
	Total	**$3,830,755**	**$2,853,327**	

Notes to the Basic Financial Statements Continued

9 Securities Lending

The City of Fresno Municipal Code and the Board's policies permit the Retirement Boards of the City of Fresno Fire and Police Retirement System and the City of Fresno Employees Retirement System (the Systems) to use investments of both Systems to enter into securities lending transactions, i.e., loans of securities to broker-dealers and other entities for collateral with a simultaneous agreement to return the collateral for the same securities in the future. The Systems have contracted with Northern Trust, their custodian, to manage the securities lending program for the Systems and all securities held in a separately managed account are available for lending. As the securities lending agent, Northern Trust calculates collateral margins and accepts collateral in the form of cash or marketable securities and irrevocable bank letters of credit for all securities lending transactions. Transactions are collateralized at 102 percent of fair value (contract value) for domestic securities and 105 percent of fair value (contract value) for international securities. Collateral is marked to market daily. When a loan is secured by cash, a rebate is negotiated and the cash collateral is invested according to the guidelines in the collateral pool.

As designated by the Board, cash collateral is invested in Northern Trust's Core U.S.A. Collateral Section (short-term investment pool), which, as of June 30, 2020 and 2019, had a weighted average duration of 65 days and 95 days, respectively, an average maturity of 31 days and 35 days, respectively, and an average monthly yield of 0.49 percent and 2.62 percent respectively. The relationship between the maturities of the investment pool and the System's loans is affected by the maturities of the security loans made by other entities that use the Northern Trust Core U.S.A. Collateral Section and a definitive statement of that relationship cannot be formulated by the System. As of June 30, 2020 and 2019, the Northern Trust CORE U.S.A. Cash Collateral Fund had zero exposure in below investment grade long-term securities and there were no known credit risks related to the securities lending transactions.

As of June 30, 2020, the fair value of the securities on loan was $76.2 million. The fair value of associated collateral was $77.6 million ($65.6 million of cash collateral and $12.0 million of non-cash collateral). Non-cash collateral, the collateral which the System does not have the ability to sell unless the borrower defaults, is not reported in the Statement of Fiduciary Net Position. As of June 30, 2019, the fair value of the securities on loan was $107.6 million. The fair value of associated collateral was $109.9 million ($98.3 million of cash collateral and $11.6 million of non-cash collateral). Non-cash collateral, the collateral which the System does not have the ability to sell unless the borrower defaults, is not reported in the Statement of Fiduciary Net Position.

Northern Trust will ensure that, in any agreement with a borrower, it retains its absolute right to terminate the agreement without cause, upon short notice and without any penalty. The System cannot pledge or sell collateral securities received unless the borrower defaults. In the event of a borrower default, Northern Trust indemnifies the System against losses and will replace or reimburse the System for any borrowed securities not replaced. In general, the average term of all System loans is overnight or "on demand." All securities loans can be terminated on demand by either the lender or the borrower, although the average term of the System's loans was approximately 65 days and 85 days, respectively, as of June 30, 2020 and 2019.

Notes to the Basic Financial Statements Continued

The System's securities lending income is as follows:

Securities Lending Income

For Fiscal Years Ended June 30, 2020 and 2019

	2020	2019
Gross Income	$1,498,843	$2,757,192
Expenses:		
Bank Fees	1,116,525	2,316,693
Total Expenses	1,116,525	2,316,693
Net Income from Securities Lending	**$382,318**	**$440,499**

Fair Value of Loaned Securities

As of June 30, 2020 and 2019

	FY 2020			FY 2019		
Collateralized by	**Cash**	**Securities**	**Total**	**Cash**	**Securities**	**Total**
U.S. Government & Agency	$ 7,085,799	$ 2,093,284	$ 9,179,083	$ 18,604,250	$ 4,136,534	$ 22,740,784
Domestic Equities	43,429,825	8,721,669	52,151,494	54,036,717	3,570,303	57,607,020
Domestic Fixed	11,971,542	—	11,971,542	23,081,287	845,178	23,926,465
International Equities	1,458,407	994,936	2,453,343	567,018	2,749,648	3,316,666
International Fixed	455,179	—	455,179	—	—	—
Total Value	**$ 64,400,752**	**$11,809,889**	**$ 76,210,641**	**$ 96,289,272**	**$11,301,663**	**$107,590,935**

Fair Value of Collateral Received for Loaned Securities

As of June 30, 2020 and 2019

	FY 2020			FY 2019		
Collateralized by	**Cash**	**Securities**	**Total**	**Cash**	**Securities**	**Total**
U.S. Government & Agency	$ 7,255,698	$ 2,139,709	$ 9,395,407	$ 18,975,287	$ 4,215,722	$ 23,191,009
Domestic Equities	44,124,199	8,799,014	52,923,213	54,910,833	3,615,441	58,526,274
Domestic Fixed	12,182,345	—	12,182,345	23,541,013	860,904	24,401,917
International Equities	1,539,183	1,053,365	2,592,548	597,225	2,874,237	3,471,462
International Fixed	481,551	—	481,551	270,379	—	270,379
Total Value	**$ 65,582,976**	**$11,992,088**	**$ 77,575,064**	**$ 98,294,737**	**$11,566,304**	**$109,861,041**

Notes to the Basic Financial Statements Continued

10 Administrative Expenses

Section 3-325 of the City of Fresno Municipal Code provides that all administrative costs of the System shall be a charge against the assets of the System. Per the City of Fresno Municipal Code, the Administrative expenses are a component of the City's contribution calculation.

11 Post Retirement Supplemental Benefit (PRSB)

The Post Retirement Supplemental Benefit (PRSB) Program was created as a contingent program to provide supplemental distributions to eligible retirees which they could use to pay for various post-retirement expenses. The Retirement Board will annually review the actuarial valuation report and declare an actuarial surplus if available in accordance with the procedures in the City of Fresno Municipal Code Section 3-354.

If an actuarial surplus is declared, the surplus is allocated into two components, one component composed of two-thirds of the declared surplus shall be used to reduce or eliminate the City's pension contributions. Any unused portion shall be reserved in the City Surplus Reserve and drawn upon in subsequent years if needed. The remaining one-third component shall be distributed among eligible post-retirement supplemental benefit recipients in accordance with procedures in the City of Fresno Municipal Code Section 3-354(f)(4). Any unused portion shall be reserved in the PRSB Reserve and drawn upon in subsequent years if needed.

For the fiscal year ended June 30, 2020, the System distributed PRSB benefits in the total amount of $2,159,944 to eligible recipients (including $1,964,344 to retirees and $195,600 to DROP participants). As of June 30, 2020, the City Surplus Reserve balance was $675,301 and the PRSB Reserve balance was $1,727,522. As of June, 30, 2019, the City Surplus Reserve balance was $312,365 and the PRSB Reserve balance was $2,084,393.

For the fiscal years ended June 30, 2020 and 2019, there was a surplus (or prefunded actuarial accrued liability) as the System has a valuation value of assets which is in excess of the actuarial accrued liability. The System's funded ratio was 116.3 percent and 117.0 percent, respectively, which was above the required 110 percent for declaration of a surplus, thus a 6.3 percent and 7.0 percent, actuarial surplus was available to reduce the City's contributions and to fund new PRSB benefits for the years ended June 30, 2020 and 2019. The June 30, 2020 PRSB portion of the surplus is $1,537,676, of which 80 percent will be allocated in the 2021 calendar year to retirees at $130.33 per month commencing January 1, 2021. For June 30, 2019 the PRSB portion of the surplus was $1,650,513, of which 80 percent was allocated in the 2020 calendar year to retirees at $149.17 per month commencing January 1, 2020.

12 Capital Assets

Capital assets are carried at historical cost, net of accumulated depreciation. Capital assets are any items of equipment or furnishings purchased with a value of or an initial cost of $500 or greater and $5,000 for land, buildings and infrastructure and an estimated useful life in excess of two years.

Accumulated depreciation shall be summarized and reflected on the System's annual financial statements. Capital assets shall be depreciated over their estimated useful lives using the straight-line depreciation method. Intangible assets with limited useful lives (e.g., by legal or contractual provisions) should be depreciated over their estimated useful lives. Depreciation of computer software begins when the program is placed into service.

Notes to the Basic Financial Statements Continued

The System's major two-year project to program and install an upgrade to our original pension administration system that was installed in 1997 (the LRS Pension Gold Retirement Solutions' Version 3 project) includes software costs of $664,797 and $797,757 which are capitalized as of June 30, 2020 and 2019, respectively, and will be amortized over a ten-year useful life period commencing July 1, 2015.

As of June 30, 2020, other capital assets consisting of office furniture and equipment for the System's Retirement Offices located at 2828 Fresno Street, Fresno, California, in the amount of $24,762 are capitalized and depreciated over remaining estimated useful lives of 2-15 years.

As of June 30, 2019, capital assets consisting of office furniture and equipment for the System's Retirement Offices in the amount of $30,655 were capitalized and depreciated over remaining estimated useful lives of 2-15 years.

13 | Leases

Under the lease agreement with CFRS Realty Holding Corporation, the holding corporation formed jointly by the Retirement Boards to take ownership of the building, effective September 19, 2005, the City of Fresno Employees and City of Fresno Fire and Police Retirement Boards and their staff occupy approximately 7,900 square feet of the second floor of the renovated building at 2828 Fresno Street, Fresno, California. The term of the lease is ten years with an option for two additional five year extensions. The first five (5) year extension was exercised effective September 1, 2015. On March 1, 2020, the Corporation amended the lease with the Retirement Boards. The amended lease agreement establishes the Retirement Boards as the sole tenant of the second floor, approximately 10,760 square feet. The amendment also exercises the second five (5) year lease extension. As of June 30, 2020, the Systems share equally a base rent of $18,846 per month, which is $1.75 per square foot per month, triple net. For the fiscal year ended June 30, 2019, the Systems equally shared a base rent of $13,635 per month, which is $1.73 per square foot per month, triple net.

14 | Related Party Transactions

The Retirement System is involved in various business transactions with the City of Fresno, the primary plan sponsor. These include reimbursement to the City for the salary and benefits of the System's Retirement Staff members paid through the City, reimbursement to the City Personnel Department for personnel consulting services, and reimbursement to the City Information Services Department for computer and telephone support.

The Retirement Systems lease office space from the CFRS Realty Holding Corporation, a title holding company controlled jointly by the City of Fresno Employees and City of Fresno Fire and Police Retirement Systems. See note 13 for a description of this arrangement.

Notes to the Basic Financial Statements Continued

15 Commitments and Contingencies

The Board, in accordance with its Asset Allocation Plan, has committed capital for investment in Private Debt/ Private Credit, Private Real Estate and Infrastructure Funds. The following table details the outstanding capital commitments in these investments as of June 30, 2020 and 2019.

	Unfunded Commitments	
Investment Type	FY 2020	FY 2019
Commingled Fund - Real Estate		
The Carlyle Group	$ 65,508,012	—
Total	$ 65,508,012	$ —
Private Real Estate Funds		
Artemis	$ 8,471,426	$ 9,696,813
Blue Vista	6,987,521	—
Brookfield	16,734,022	21,126,009
Oaktree Capital Mgt.	2,710,394	1,698,644
PIMCO BRAVO III	1,395,705	9,773,702
PCCP, LLC	6,838,328	7,116,847
Total	$ 43,137,396	$ 49,412,015
Private Debt/Private Credit		
Monroe Capital	$ 13,721,121	$ 18,977,760
Crescent Capital	7,579,213	21,582,727
PIMCO COF II	32,917,776	10,453,192
Total	$ 54,218,110	$ 51,013,679
Private Equity		
Pantheon	$ 83,105,903	$ 88,221,925
Total	$ 83,105,903	$ 88,221,925
Total Unfunded Commitments	$245,969,421	$188,647,619

16 Date of Management Review

The date to which events occurring after June 30, 2020, have been evaluated for possible adjustments to the financial statements or disclosures is November 30, 2020, which is the date the financial statements were available to be issued.

Management identified the following subsequent financial events that require disclosure:

Carlyle Core Real Estate, a new investment account added during FY2020, issued an initial capital call of $1,479,109 that was funded on July 1, 2020.

As a result of the spread of the coronavirus (COVID-19) economic uncertainties arose which have the potential to impact the Net Position of the Retirement System. While it is the opinion of the management of the System and the System's actuary that the System remains strong, well funded and well positioned to serve our members, the value of the System's assets have been affected by this turbulent global market environment as a result of COVID-19. However, the amount of losses and potential gains, if any, that the System may recognize in its future financial statements cannot be determined now. Market fluctuations are a normal investment risk for a pension fund and the System is a long-term investor.

From a staffing perspective, the System has equipped and enabled staff to work from home where at all possible and productivity has remained extremely high.

Required Supplementary Information

Schedule of Changes in the Net Pension Liability

(Dollars in Thousands)

For Fiscal Years Ended June 30, 2013-2020

	GASB 67 Basis* Financial Reporting			
Change in Net Pension Liability	**2020**	**2019**	**2018**	**2017**
Total Pension Liability				
Service cost	$37,619	$33,211	$30,298	$28,838
Interest	105,570	100,609	95,274	90,184
Change of benefit terms	—	—	—	—
Differences between expected and actual experience	260	(7,067)	6,723	10,896
Changes of assumptions	(14,745)	55,856	2,891	—
Benefit Payments (including refunds, excluding PRSB)	(67,202)	(65,962)	(63,071)	(59,272)
Net Change in Total Pension Liability	**$61,502**	**$116,647**	**$72,115**	**$70,646**
Total Pension Liability - Beginning	**$1,504,129**	**$1,387,482**	**$1,315,367**	**$1,244,721**
Total Pension Liability - Ending (a)*	**$1,565,631**	**$1,504,129**	**$1,387,482**	**$1,315,367**
Plan Fiduciary Net Position				
Employee Contributions	$10,012	$9,597	$8,964	$8,169
Employer Contributions	22,324	20,604	19,697	18,543
Net Investment Income	24,205	82,872	129,163	192,315
Actual Benefit Payments (including Refunds, PRSB)	(67,202)	(65,962)	(63,071)	(59,273)
Administrative & Professional Expense	(1,839)	(1,897)	(1,710)	(1,500)
Net Change in Plan Fiduciary Net Position	**$(12,500)**	**$45,214**	**$93,043**	**$158,254**
Plan Fiduciary Net Position - Beginning	**$1,647,800**	**$1,602,586**	**$1,509,543**	**$1,351,289**
Plan Fiduciary Net Position - Ending (b)	**$1,635,300**	**$1,647,800**	**$1,602,586**	**$1,509,543**
System Net Pension Liability (Surplus) - (a) - (b)	$(69,669)	$(143,671)	$(215,104)	$(194,176)
Plan fiduciary net position as a percentage of total pension liability	104.45%	109.55%	115.50%	114.76%
Covered Payroll	113,843	109,803	103,934	97,369
Net Pension Liability (Surplus) as a percentage of covered payroll	**(61.20)%**	**(130.84)%**	**(206.96)%**	**(199.42)%**

* In accordance with provisions of GASB 67, the data on the next two pages show Total Pension Liability for the reporting periods from June 30, 2013 through June 30, 2020. Ten years of data in this format is not yet available, the System will provide 10 years in the format required by GASB 67 as information becomes available.

Note to Schedule:

Changes of Assumptions: The calculations above reflect various assumption changes, including the modification of the Board's assumed rate of return to 7.00 percent for use in preparing the June 30, 2019 annual actuarial valuation and other assumption changes based on the triennial experience study for the period from July 1, 2015 through June 30, 2018. The calculations above also reflect the assumed rate of return of 7.25 percent for use in preparing the June 30, 2016, 2017 and 2018 annual actuarial valuation and other assumption changes based on the triennial experience study for the period from July 1, 2012 through June 30, 2015 and 7.50 percent for use in preparing the June 30, 2013, 2014 and 2015 annual actuarial valuation and other assumption changes based on the triennial experience study for the period from July 1, 2009 through June 30, 2012 which included changes in assumptions for retirement from active employment, pre-retirement mortality, healthy life post-retirement mortality, disabled life post-retirement mortality, vested termination, disability DROP election, percentage of members married, spouse age difference and salary increases.

Required Supplementary Information Continued

Schedule of Changes in the Net Pension Liability Continued

(Dollars in Thousands)

For Fiscal Years Ended June 30, 2013-2020

	GASB 67 Basis* Financial Reporting			
Change in Net Pension Liability	**2016**	**2015**	**2014**	**2013**
Total Pension Liability				
Service cost	$26,569	$26,518	$28,058	$25,663
Interest	88,363	86,772	86,092	87,850
Change of benefit terms	—	—	—	—
Differences between expected and actual experience	(42,953)	(36,529)	(49,879)	(30,574)
Changes of assumptions	49,427	—	—	17,284
Benefit Payments (including refunds, excluding PRSB)	(56,581)	(54,612)	(52,720)	(52,982)
Net Change in Total Pension Liability	**$64,825**	**$22,149**	**$11,551**	**$47,241**
Total Pension Liability - Beginning	**$1,179,896**	**$1,157,747**	**$1,146,196**	**$1,098,955**
Total Pension Liability - Ending (a)*	**$1,244,721**	**$1,179,896**	**$1,157,747**	**$1,146,196**
Plan Fiduciary Net Position				
Employee Contributions	$7,748	$7,385	$7,294	$7,399
Employer Contributions	18,738	18,967	18,575	18,725
Net Investment Income	6,063	39,164	201,838	140,701
Actual Benefit Payments (including Refunds, PRSB)	(56,581)	(54,612)	(52,720)	(52,982)
Administrative & Professional Expense	(1,397)	(1,108)	(1,119)	(1,182)
Net Change in Plan Fiduciary Net Position	**$(25,429)**	**$9,796**	**$173,868**	**$112,661**
Plan Fiduciary Net Position - Beginning	**$1,376,718**	**$1,366,922**	**$1,193,054**	**$1,080,393**
Plan Fiduciary Net Position - Ending (b)	**$1,351,289**	**$1,376,718**	**$1,366,922**	**$1,193,054**
System Net Pension Liability (Surplus) - (a) - (b)	$(106,568)	$(196,822)	$(209,175)	$(46,858)
Plan fiduciary net position as a percentage of total pension liability	108.56%	116.68%	118.07%	104.09%
Covered Payroll	94,266	91,075	91,721	94,368
Net Pension Liability (Surplus) as a percentage of covered payroll	**(113.05)%**	**(216.11)%**	**(228.06)%**	**(49.65)%**

Required Supplementary Information Continued

Schedule of Employer Contributions
Last Ten Fiscal Years
(Dollars in Thousands)

Fiscal Year Ended June 30	Actuarially Determined Contribution (ADC)	Contributions in Relation to the ADC	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
2020	$22,324	$22,324	$—	$113,843	19.61%
2019	20,604	20,604	—	109,803	18.76%
2018	19,697	19,697	—	103,934	18.95%
2017	18,543	18,543	—	97,369	19.04%
2016	18,738	18,738	—	94,266	19.88%
2015	18,967	18,967	—	91,075	20.83%
2014	18,575	18,575	—	91,721	20.25%
2013	18,725	18,725	—	94,368	19.84%
2012	22,875	22,875	—	96,195	23.78%
2011	19,397	19,397	—	96,758	20.05%

Schedule of Investment Returns
Last Ten Fiscal Years

Fiscal Year Ending June 30	Annual Money-Weighted Rate of Return Gross of Investment Expenses	Annual Money-Weighted Rate of Return Net of Investment Expense
2020	1.61%	1.26%
2019	5.54%	5.20%
2018	8.93%	8.57%
2017	14.73%	14.35%
2016	0.82%	0.53%
2015	3.32%	2.93%
2014	17.61%	17.16%
2013	13.65%	13.20%
2012	(0.20%)	(0.57%)
2011	24.42%	23.88%

The Schedule of Investment Returns above shows the annual money-weighted rate of return on the assets of the System, both gross and net of investment expense for ten fiscal years (2011 – 2020). The money-weighted rate of return expresses investment performance adjusted for timing of cash flows and the changing amounts actually invested. These returns differ slightly from the time-weighted rate of returns calculated and reported by the System's custodian, Northern Trust (shown in the Transmittal Letter on page i and within the Investment Section beginning on page 65) and as independently reported by the System's investment consulting firm, NEPC, LLC (shown in the Investment Section on pages 71-72). The System's custodian and investment consulting firm must use time-weighted returns as opposed to money-weighted returns in order to meet Global Investment Performance Standards for the purposes of effectively evaluating and reporting the performance of the System's investment managers.

The time-weighted return method is a measure of the compound rate of return of a portfolio over a stated period of time. It requires a set of sub-period returns to be calculated whenever there is an external cash flow, such as a deposit or withdrawal from the portfolio. In essence, it calculates the geometric total and mean return as opposed to the arithmetic total and mean return. This method does not include or have any distortions created when money is deposited or withdrawn from a portfolio. This is in contrast to money-weighted returns.

Notes to the Required Supplementary Information

For Fiscal Years Ended June 30, 2020 and 2019

Actuarial Assumptions

The Segal Company, the System's actuary, performed the most recent annual actuarial valuation as of June 30, 2020, which computes the contribution requirements (employee and employer contributions rates for fiscal year 2022), and determines the funding status of the plan. The fiscal year 2020 contribution rates and assumptions were based on the actuarial valuation as of June 30, 2018, these assumptions are detailed below.

Valuation Date:	Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported.
Actuarial Cost Method:	Entry Age Actuarial Cost Method
Amortization Method:	Level percent of payroll for total Unfunded or Prefunded Actuarial Accrued Liability (UAAL or PAAL)
Remaining Amortization Period:	Effective with the June 30, 2013 valuation, any new UAAL established on each subsequent valuation as a result of actuarial gains or losses or plan amendments are amortized over separate 15-year declining periods (with the exception of temporary retirement incentives which are amortized over its own declining period of up to 5 years). Any new UAAL established as a result of changes in actuarial assumptions or methods at each valuation is amortized over separate 25-year declining periods. Effective with the June 30, 2018 valuation, when there is any actuarial surplus (the funded ratio is over 110%) the portion of surplus in excess of 110% will be amortized over a non-declining 30-year period.
Asset Valuation Method:	Fair value of assets less unrecognized returns from each of the last five years. Unrecognized returns are equal to the difference between the actual market return and the expected return on a fair value basis and are recognized over a five-year period. The Actuarial Value of Assets is reduced by the value of the non-valuation reserves.

Notes to the Required Supplementary Information Continued

Actuarial Assumptions Continued:

Investment Rate of Return:	7.25%
Inflation Rate:	3.00%
Real Across-the-Board Salary Increase:	0.50%
Projected Salary Increases:	Ranges from 4.00 percent to 12.00 percent based on years of service. Includes inflation at 3.00% plus real across-the-board salary increase of 0.50% plus merit and promotion increases.
Cost of Living Adjustments:	3.50% of Tier 1 retirement income and 3.00% of Tier 2 retirement income.
Other Assumptions:	See June 30, 2018 funding valuation report, Section 4 for the service retirement rates after they have been adjusted to treat DROP participation as service retirement.
Post-Retirement Mortality Rates:	Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females), projected 20 years with the two-dimensional scale MP-2015, with no setback for healthy males and set forward one year for healthy females. For Disabled members, set forward four years. For Beneficiaries, no setback for males and set forward one year for females, weighted 80% male and 20% female.

Other Supplementary Information

Schedule of Administrative Expenses

For Fiscal Years Ended June 30, 2020 and 2019

	2020	2019
Personnel Services		
Staff Salaries	$ 657,358	$ 583,469
Fringe Benefits	172,586	151,130
Total Personnel Services	$ 829,944	$ 734,599
Professional Services		
Actuarial	$ 66,763	$ 96,780
Legal Counsel	111,599	109,051
Information Systems Services	183,882	153,013
Specialized Services	134,165	250,188
Total Professional Services	$ 496,409	$ 609,032
Communication		
Telephone	$ 5,451	$ 5,000
Postage	1,785	938
Total Communication	$ 7,236	$ 5,938
Rentals		
Office Rent	$ 93,049	$ 81,540
Common Area Maintenance (CAM) Charges	48,837	54,375
Total Rentals	$ 141,886	$ 135,915
Other		
Education and Conference	$ 67,860	$ 103,356
Membership & Dues	6,565	5,808
Subscriptions & Publications	2,046	1,940
Office Supplies	3,393	5,727
Computer Equipment	316	3,605
Equipment Lease	13,461	20,217
Insurance	37,752	37,808
Miscellaneous	8,529	9,463
Reimbursement to City for Inter-Dept Services	84,577	84,126
Depreciation	139,297	139,713
Total Other	**$ 363,796**	**$ 411,763**
Total Administrative Expenses	**$ 1,839,271**	**$ 1,897,247**

Other Supplementary Information Continued

Schedule of Investment Management Expenses

For Fiscal Years Ended June 30, 2020 and 2019

	2020	2019
Investment Manager Fees		
Equity		
Domestic	$ 972,908	$ 985,807
International	1,768,130	1,844,252
Fixed Income	827,248	905,905
Alternatives	5,001,334	3,805,722
Real Estate	3,964,918	4,878,746
Total Investment Manager Fees	**12,534,538**	**12,420,432**
Other Investment Expenses		
Foreign Income Taxes & Related Services, Charges	1,606,582	824,100
Custodial Services	193,591	180,178
Investment Consultant	144,399	159,442
Investment Legal Counsel	31,698	65,741
Analytical Database Service	23,187	45,747
Total Other Investment Expenses	**1,999,457**	**1,275,208**
Total Fees & Other Investment Expenses	**14,533,995**	**13,695,640**
Securities Lending Expenses		
Agent Fees	1,116,525	2,316,693
Total Securities Lending Expenses	**1,116,525**	**2,316,693**
Total Investment Expenses	**$ 15,650,520**	**$ 16,012,333**

Schedule of Payments To Consultants

For Fiscal Years Ended June 30, 2020 and 2019

	2020	2019
Actuarial Services	$ 66,763	$ 96,780
Audit Services	21,277	21,392
City Information Services	183,882	153,013
Legal Services	111,599	109,051
Medical Consultant	103,200	216,060
Miscellaneous	9,688	12,736
Total Payments to Consultants	**$ 496,409**	**$ 609,032**

We promise to carry out our Mission through a competent, professional, impartial and open decision-making process. In providing benefits and services, all persons will be treated fairly, with courtesy and respect.

INVESTMENT

Investment Report from the Retirement Administrator

For the Years June 30, 2020 and 2019

Analysis of Our Portfolio in Fiscal Year 2020

The Board's responsibility, as a long-term investor, is to manage in and through the global financial market environments as they unfold. Our Board understands the System's portfolio requires a sound and stable strategy for meeting investment goals over the long-term with appropriate risk levels and controls.

The COVID-19 pandemic disrupted global markets to a degree rarely seen before. In an unprecedented act, most countries closed their borders in a coordinated effort which caused investors to take a risk-off (flight to quality) approach in their portfolios. Governments around the world enacted monetary and fiscal policies in order to minimize a prolonged negative economic impact. Liquidity in most fixed income instruments became almost non-existent during March which forced allocators to reexamine how their portfolios should be constructed going forward.

From an economic perspective, most regional equity markets recovered back to their pre-crisis levels while central banks reduced their discount rates close to zero. While these events benefitted investors globally, asset returns were still far below their pre-pandemic levels. The System has employed a robust asset allocation that attempts to diversify as much risk as possible while still generating consistent returns over the long-term.

The System generated a net return of 1.3% and outperformed its policy benchmark by 0.6% in Fiscal Year 2020, as reported by its custodian Northern Trust. The System underperformed its assumed rate of return by 5.7%. Across longer investment horizons, the System has outperformed its assumed rate of return and policy benchmark.

The public market (equity and fixed income) portfolios remain over-allocated by nearly 11% while capital drawdowns in Private Real Estate, Private Debt, and Private Equity continue to be funded. Core fixed income was the dominant driver of total portfolio performance with certain equity sub-strategies performing strongly as well. A completed search for Core Plus Real Estate continues to diversify the System's asset allocation.

Small Cap Growth, International Developed equities, and Core Fixed Income produced the largest relative excess returns for the portfolio while Midstream Energy experienced the largest relative under performance. In spite of those setbacks, the portfolio reached a new high water mark in terms of market value.

Investment Report from the Retirement Administrator Continued

Investment Performance

The table below highlights the gross and net of fees performance of each major asset class provided by the System's custodian, Northern Trust, for Fiscal Year 2020. These returns may differ slightly from the performance reported by the System's investment consultant due to rounding methodology:

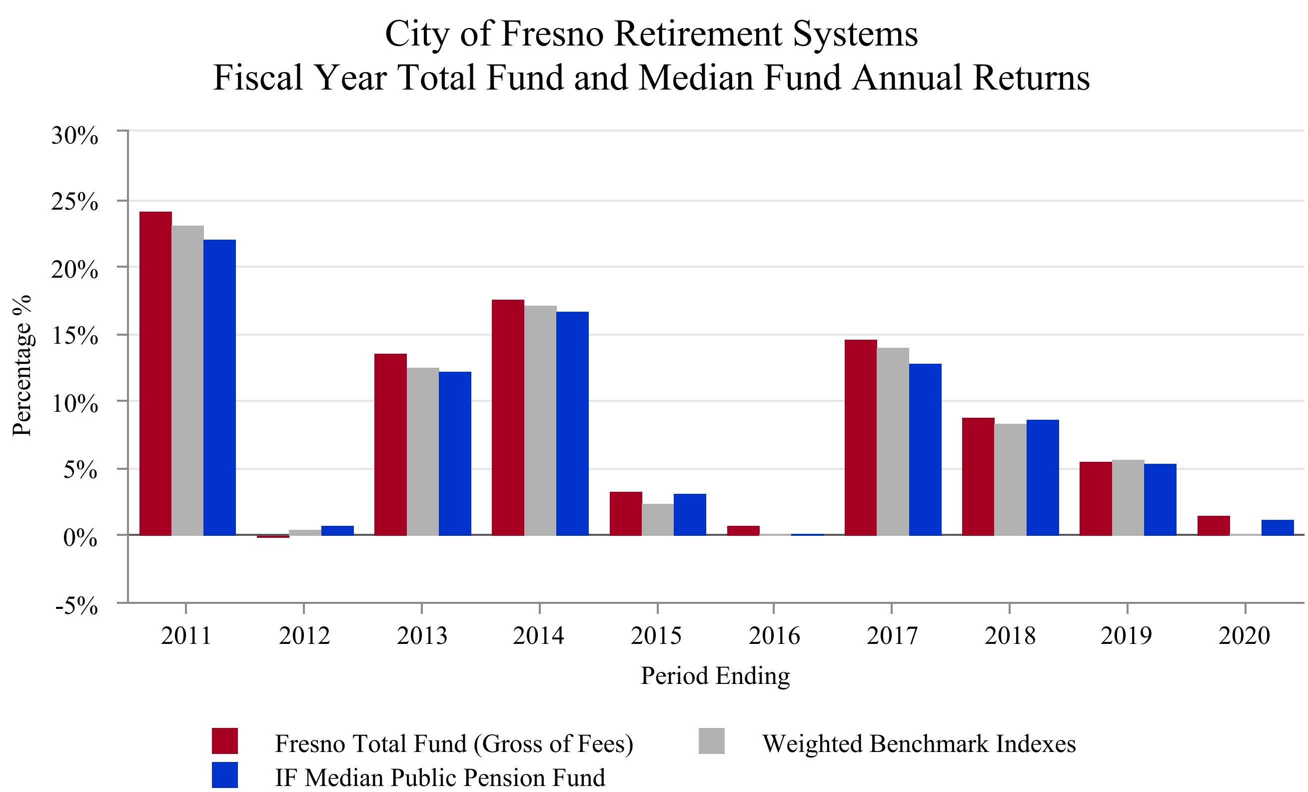
Asset Class	Gross Return	Net Return
Total Fund	1.62%	1.26%
Domestic Equity	4.81%	4.58%
International Equity	2.27%	1.85%
Fixed Income	5.57%	5.31%
Real Estate	(0.75)%	(1.34)%
Alternatives	(8.11)%	(8.52)%
Fiscal Year End Fund Value	$1,635,299,813	

The System's 15 and 25-year long-term gross returns of 7.28 percent and 8.66 percent, respectively, illustrate the System's ability to achieve our long-term objectives over extended periods. Meanwhile, the System remains highly funded and well positioned to serve our members and retirees.

The principal goals of the System's Board in managing the System's Investment Portfolio are the following:

1) To fund the System's benefit payments;
2) To assume a prudent risk posture to minimize the cost of meeting the obligations of the System;
3) To comply with legal statutes and regulations; and
4) To maintain a fully funded pension status.

Presented in the graph below are the System's Total Fund returns versus NEPC, LLC's InvestorForce (IF) Public Funds Universe (Gross of Fee), for plans with $1 billion or more in assets:



Investment Report from the Retirement Administrator Continued

Summary of Portfolio Results

The fiscal year ended June 30, 2020, marked yet another extraordinarily volatile year which ended with a decline from its peak fiscal year performance for the System. The System experienced a total investment gain of 1.62 percent for the fiscal year ended June 30, 2020, under performing the System's actuarial interest rate assumption of 7.00 percent by 5.38 percent and outperforming the System's policy benchmark (a weighted average of the fund's asset classes and their respective benchmarks) return of 0.66 percent by 0.96 percent. The System's ten-year annualized returns averaged 8.76 percent, outperforming its policy benchmarks return of 8.26 percent for the period by 0.50 percent. Over the longer term, our investment results remain sound with annualized returns of 6.01 percent and 7.96 percent, respectively, over the past twenty and twenty-five years. After paying all benefits and expenses of the System, the year-end value of the System reached $1.635 billion.

General Information

The System's investment assets are managed by external investment management firms. Professional investment consultants, along with staff, closely monitor the activity of these managers and assist the Board with the implementation of investment policies and long-term strategies. The System's goal is to fund benefit payments, while assuming a risk posture that is consistent with the Board's risk tolerance, protecting against loss of purchasing power by achieving rates of return above inflation, and to maintain a fully funded pension status.

Summary of General Investment Guidelines, Policies and Procedures

The Board, having the sole and exclusive authority and fiduciary responsibility for the administration of the System and its assets, has adopted an Investment Policy Statement which reflects the Board's policies for management of the System's investments. The Board reserves the right to amend, supplement or rescind this statement at any time. This Investment Policy Statement establishes the investment program goals and policies, asset allocation policies, and beliefs. It also defines the principal duties of the Board, staff, investment managers, master custodian and consultants.

An integral part of the overall investment policy is the strategic asset allocation policy. This allocation mix is designed to provide an optimal mix of asset categories with return expectations that reflect expected risk. This emphasizes a maximum diversification of the portfolio that protects the System from declines that a particular asset class may experience in a given period. Both traditional assets (equities and fixed income) and non-traditional assets (real estate, infrastructure, midstream energy, private equity, and private debt) are included in the mix.

Total portfolio return, over the long-term, is directed toward achieving and maintaining a fully funded status for the System. Prudent risk taking is warranted within the context of overall portfolio diversification to meet this objective. All activities will be conducted so as to serve the best interests of the System's members and beneficiaries.

Investment Report from the Retirement Administrator Continued

Summary of Proxy Voting Guidelines and Procedures

In recognition of its duty to manage retirement plan assets in the best interest of the plan participants, the Board has established proxy voting guidelines and procedures which are intended to assist in the faithful discharge of the Board's duty to vote proxies on behalf of plan participants. These guidelines consist of preferences with respect to specific, recurring proxy-voting issues followed by a general statement of voting policies. The System will at all times strive to cast proxy votes so as to advance the overall good of the System.

Specific Investment Results by Asset Classification

As of June 30, 2020, the System's portfolio was slightly over-weight in total equities, with 58.1 percent in total equities versus the target of 49.0 percent. Domestic equities were slightly over-weight with 30.2 percent versus the target of 23.0 percent, and international equity with 18.0 percent developed and 9.9 percent emerging markets was slightly over-weight total international equity with 27.9 percent versus the target of 26.0 percent. Fixed income with 15.8 percent was 0.8 percent over-weight its target of 15.0 percent and real estate at 9.7 percent was 5.3 percent under-weight its target of 15.0 percent. Alternative investments represented 16.4 percent of the System's portfolio, which is 4.6 percent under-weight of its target of 21.0 percent.

The investments were further diversified into the following asset classes and target percentages:

Asset Classification	Actual	Target
Domestic Equities		
Large-Cap	22.7%	15.8%
Small-Cap	7.5%	7.2%
International Equities		
Developed Markets	18.0%	19.0%
Emerging Markets	9.9%	7.0%
Fixed Income		
Domestic Fixed Income	10.5%	10.0%
High Yield Fixed Income	5.3%	5.0%
Real Estate		
Core Real Estate	6.1%	11.0%
Value Add Real Estate/REITs	3.6%	4.0%
Alternatives		
Infrastructure	4.2%	4.0%
Midstream Energy (MLP's)	4.2%	5.0%
Private Equity	1.0%	4.0%
Private Debt	7.0%	8.0%
Short-Term Investments	0.0%	0.0%
Total	**100.0%**	**100.0%**

Investment Report from the Retirement Administrator Continued

This asset class diversification allows the Retirement Board to monitor and adjust its risk in accordance with its Investment Policy Statement. The investment returns presented herein are based on a time-weighted rate of return methodology based upon market values. As Fiscal Year 2020 came to a close, countries, and their respective economies, were determining how to re-open their economies in a safe and prudent manner due to the COVID-19 pandemic. While their approaches differed, most countries implemented a combination of monetary and fiscal policies to assist affected citizens and businesses. The drawdown in March 2020 had a negative impact to the portfolio but the subsequent reflation trade during the 2nd quarter allowed the System to recoup the majority of its market value losses.

Respectfully submitted,

Robert Theller

Robert T. Theller, Esq.
Retirement Administrator

November 30, 2020

Investment Consultant's Report

NEPC, LLC

DON STRACKE
SENIOR CONSULTANT

November 24, 2020

City of Fresno Retirement Systems
2828 Fresno Street Suite 201
Fresno, California 93721

Dear Board Members,

The overall objective of the City of Fresno Retirement Systems (CFRS) is to ensure continued access to retirement, disability and survivor benefits for current and future CFRS participants. To ensure a solid foundation for the future of the Retirement Systems, CFRS' Boards carefully plan and implement an investment program designed to produce superior long-term investment returns, while prudently managing the risk in the portfolio. Investment policy and asset allocation are reviewed and revised by the CFRS Retirement Boards, at least annually, to reflect the Systems' actuarial assumptions, accrued liabilities, and economic and investment outlook. The following is a report on the performance of the Fund for the fiscal year ending June 30, 2020 with background on the underlying market environment.

Fiscal Year 2020 Market Review

The fiscal year ended 6/30/2020 saw the end of the longest U.S. economic expansion on record. Economies around the world were disrupted because of COVID-19 and markets reacted with historically fast-paced declines. Governments and central banks from around the world took extraordinary measures to stimulate shuttered economies. In the U.S., fiscal stimulus reached over 12% of GDP while Germany, Japan, France and the U.K. had materially larger stimulus packages. The Federal Reserve provided additional support to the U.S. economy by reducing the Fed Funds Rate to a targeted range of 0.00% -to- 0.25%, resumed quantitative easing by purchasing Government Bonds, and flooded markets with cheap liquidity. Similar actions were taken by central banks globally. These stimulus measures, along with optimism around a potential vaccine for COVID-19 and easing of lockdown restrictions resulted in a historically dramatic reversal in risk assets in the fourth fiscal quarter. Despite a historic decline in GDP (-39.6% annualized in the final quarter of 2020 fiscal year, U.S. stocks posted their eleventh consecutive year of positive returns and outperformed international equities, returning 7.5% as measured by the S&P 500 Index. International developed-markets equities (-5.1% for the year) lagged domestic equities by 12.6%. U.S. equity outperformance was driven in large part by big technology stocks that benefitted from a demand surge in the wake of the pandemic. Emerging markets equities returned -3.4%, underperforming U.S. equities but outperforming international-developed markets equities. Driven by declining interest rates and demand for safe-haven assets, U.S. high quality fixed income investments generated a positive 8.7% return in the fiscal year as measured by the Bloomberg Barclays U.S. Aggregate Bond Index.

The Systems returned 1.6%, gross of fees, for the fiscal year ending June 30, 2020. By comparison, the median public fund in the comparative universe returned 1.2% for the period[1]. The Systems' allocation to public equities is significantly higher than many of its peers, and the public equity exposure was a positive contributor to performance. Core Fixed Income was the strongest contributor to absolute performance, returning 7.8% gross of fees.

[1] As of June 30, 2020, the Investment Metrics Public Funds Greater than $1 Billion Universe was comprised of 82 total funds with approximately $804 billion in assets.

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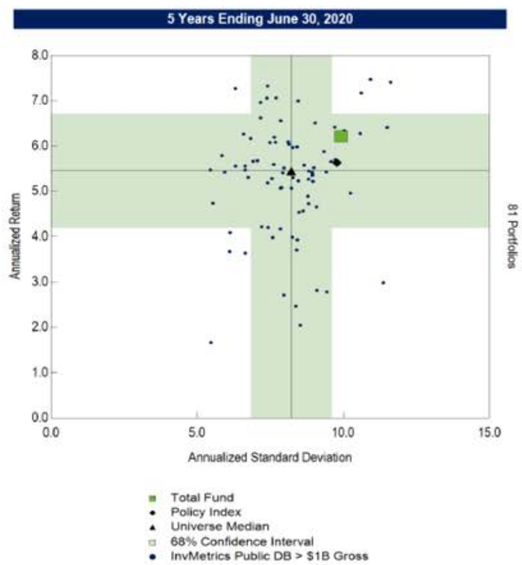
BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

Investment Consultant's Report Continued

For the five-year period ending June 30, 2020, the Systems returned 6.2% gross of fees per annum. As you can see in the chart below, this was an above average return but with a higher level of volatility than the average public fund.

Data as of 6/30/2020	1 Yr(%)	3 Yrs(%)	5 Yrs(%)	10 Yrs(%)	15 Yrs(%)
Systems' Total Return (Gross of Fees)	1.6	5.3	6.2	8.8	6.7
Systems' Total Return (Net of Fees)	1.3	5.0	5.9	8.4	6.2
Policy Index	0.3	4.8	5.6	8.2	6.4

Investment Metrics Public Funds Greater than $1 Billion Universe
Risk-Return Comparison (Gross of Fees)



NEPC provides the Systems with quarterly economic and investment market updates, performance reviews, investment manager monitoring and selection advice, and related investment services for traditional and non-traditional asset classes. In preparing our performance analysis for the Systems, we rely on the accuracy of financial data provided by the Systems' custodian bank and investment managers. CFRS's custodian, The Northern Trust Company, independently prepared the underlying performance data used in this report. The Systems' goals are measured against stated policy objectives, appropriate benchmarks and comparative universes over multiple time periods. This review process allows the Boards to evaluate whether established goals are being achieved on an absolute, relative and risk-adjusted basis.

Sincerely,
Don Stracke

Investment Results

	Market Value ($)	% of Portfolio	Gross of Fees Ending June 30, 2020			
			1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Total Fund	2,978,080,751	100.00	1.60	5.31	6.21	8.76
Policy Index			*0.28*	*4.76*	*5.63*	*8.21*
InvMetrics Public DB > $1B Gross Median			*1.20*	*4.92*	*5.45*	*7.77*
Total Equity Composite	1,728,273,088	58.03	3.55	6.54	7.18	10.42
MSCI ACWI			*2.11*	*6.14*	*6.46*	*9.16*
InvMetrics Public DB Glbl Eq Gross Median			*0.77*	*5.76*	*6.19*	*6.43*
Domestic Equity Composite	899,141,273	30.19	4.82	8.84	9.33	13.53
Domestic Equity Index			*2.73*	*7.78*	*8.70*	*12.94*
InvMetrics Public DB US Eq Gross Median			*2.88*	*8.37*	*8.93*	*12.89*
Large Cap Equity Composite	676,609,518	22.72	7.46	10.69	10.44	14.32
Large Cap Equity Index			*7.48*	*10.64*	*10.67*	*13.96*
eV US Large Cap Equity Gross Median			*4.54*	*9.22*	*9.24*	*13.40*
Small Cap Equity Composite	222,531,755	7.47	-0.57	5.59	7.31	11.94
Russell 2000			*-6.63*	*2.01*	*4.29*	*10.50*
eV US Small Cap Equity Gross Median			*-8.35*	*1.94*	*4.56*	*11.09*
International Equity Composite	829,131,815	27.84	2.12	4.44	5.08	7.42
International Equity Index			*-3.82*	*1.44*	*2.68*	*5.57*
InvMetrics Public DB ex-US Eq Gross Median			*-3.60*	*1.30*	*2.83*	*6.01*
ACWI ex US Equity Composite	722,479,281	24.26	2.72	4.93	5.55	7.55
MSCI ACWI ex USA Gross			*-4.39*	*1.61*	*2.74*	*5.45*
eV ACWI ex-US All Cap Equity Gross Median			*-1.02*	*3.65*	*4.28*	*7.70*
International Emerging Markets Equity Composite	106,652,532	3.58	1.73	3.82	5.30	4.18
MSCI Emerging Markets Gross			*-3.05*	*2.27*	*3.24*	*3.63*
InvMetrics Public DB Emg Mkt Eq Gross Median			*-5.30*	*0.26*	*1.65*	*2.66*
Total Fixed Income Composite	472,036,019	15.85	5.66	5.12	4.93	5.13
Fixed Income Index			*5.80*	*4.87*	*4.67*	*4.65*
BBgBarc US Aggregate TR			*8.74*	*5.32*	*4.30*	*3.82*
InvMetrics Public DB Total Fix Inc Gross Median			*6.88*	*4.59*	*3.99*	*4.38*
Core Fixed Composite	314,112,093	10.55	7.77	5.47	4.84	4.47
BBgBarc US Aggregate TR			*8.74*	*5.32*	*4.30*	*3.82*
InvMetrics Public DB US Fix Inc Gross Median			*7.07*	*4.55*	*3.66*	*3.32*
High Yield Composite	157,923,926	5.30	0.59	3.49	4.91	7.08
BBgBarc US High Yield TR			*0.03*	*3.33*	*4.79*	*6.68*
InvMetrics Public DB US Fix Inc Gross Median			*7.07*	*4.55*	*3.66*	*3.32*
Alternatives	486,858,165	16.35	-8.33	0.00	0.00	0.00
Alternatives Index			*-4.15*	*0.00*	*0.00*	*0.00*
Private Credit	205,432,991	6.90	0.62	5.68	0.00	0.00
Private Credit Index			*5.57*	*7.18*	*0.00*	*0.00*
Infrastructure	126,032,832	4.23	4.12	0.00	0.00	0.00
CPI + 4% (Unadjusted)			*4.67*	*5.78*	*5.61*	*5.75*
Midstream Energy	125,480,584	4.21	-33.78	0.00	0.00	0.00
Alerian Midstream Energy Index			*-29.45*	*-8.91*	*-6.55*	*0.00*
Private Equity	29,911,758	1.00	4.39	0.00	0.00	0.00
Private Equity Index			*-9.91*	*0.00*	*0.00*	*0.00*
Real Estate Composite	289,759,007	9.73	-0.75	5.09	7.21	11.06
Real Estate Index			1.60	4.48	6.73	10.74
InvMetrics Public DB Real Estate Pub+Priv Gross Median			0.93	5.21	7.15	11.09
Private Real Estate Composite	289,746,563	9.73	0.10	4.95	6.81	10.59
NCREIF ODCE			*2.23*	*5.66*	*7.31*	*10.80*
Public Real Estate Composite	12,444	0.00	-9.11	3.08	6.41	11.05
Wilshire RESI			*-12.39*	*0.21*	*4.20*	*9.34*
eV US REIT Gross Median			*-7.29*	*2.89*	*5.84*	*10.46*
Cash & Equivalents Composite	1,154,472	0.04	1.39	1.68	1.22	0.68
91 Day T-Bills			*1.30*	*1.66*	*1.13*	*0.59*

Calculations are prepared by NEPC, LLC using a time-weighted rate of return based on market values.

Investment Results (Continued)

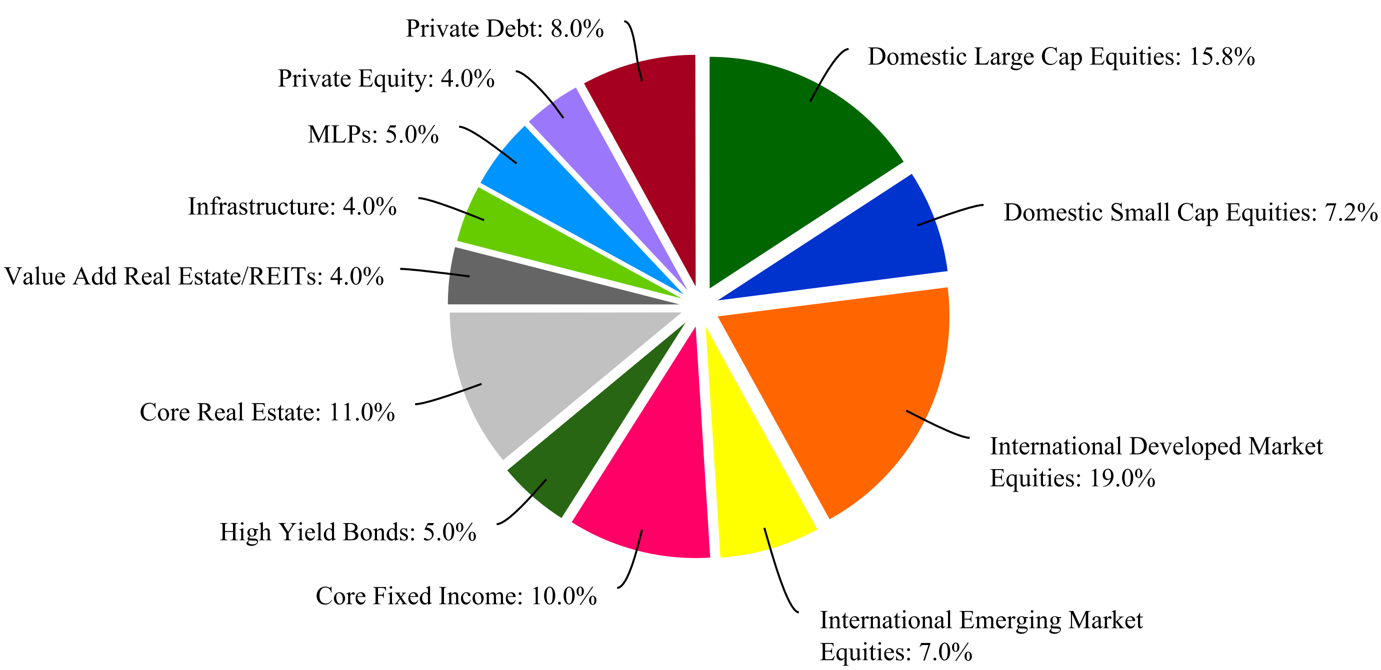
			Net of Fees Ending June 30, 2020			
	Market Value ($)	% of Portfolio	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Total Fund	2,978,080,751	100.00	1.26	4.97	5.86	8.36
Policy Index			*0.28*	*4.76*	*5.63*	*8.21*
InvMetrics Public DB > $1B Net Median			*1.26*	*4.97*	*5.39*	*7.78*
Total Equity Composite	1,728,273,088	58.03	3.24	6.22	6.85	10.03
MSCI ACWI			*2.11*	*6.14*	*6.46*	*9.16*
InvMetrics Public DB Glbl Eq Net Median			*0.77*	*5.76*	*6.19*	*6.43*
Domestic Equity Composite	899,141,273	30.19	4.58	8.59	9.07	13.23
Domestic Equity Index			*2.73*	*7.78*	*8.70*	*12.94*
InvMetrics Public DB US Eq Net Median			*2.72*	*8.35*	*8.84*	*12.70*
Large Cap Equity Composite	676,609,518	22.72	7.47	10.69	10.40	14.23
Large Cap Equity Index			*7.48*	*10.64*	*10.67*	*13.96*
eV US Large Cap Equity Net Median			*3.52*	*8.14*	*8.41*	*12.52*
Small Cap Equity Composite	222,531,755	7.47	-1.30	4.81	6.51	11.09
Russell 2000			*-6.63*	*2.01*	*4.29*	*10.50*
eV US Small Cap Equity Net Median			*-9.83*	*0.93*	*3.68*	*10.09*
International Equity Composite	829,131,815	27.84	1.84	4.08	4.71	6.97
International Equity Index			*-3.82*	*1.44*	*2.68*	*5.57*
InvMetrics Public DB ex-US Eq Net Median			*-3.69*	*1.06*	*2.61*	*5.66*
ACWI ex US Equity Composite	722,479,281	24.26	2.53	4.69	5.29	7.25
MSCI ACWI ex USA Gross			*-4.39*	*1.61*	*2.74*	*5.45*
eV ACWI ex-US All Cap Equity Net Median			*-0.04*	*3.85*	*3.95*	*7.25*
International Emerging Markets Equity Composite	106,652,532	3.58	0.87	2.93	4.40	3.24
MSCI Emerging Markets Gross			*-3.05*	*2.27*	*3.24*	*3.63*
InvMetrics Public DB Emg Mkt Eq Net Median			*-5.49*	*-0.70*	*1.14*	*2.37*
Total Fixed Income Composite	472,036,019	15.85	5.39	4.88	4.68	4.88
Fixed Income Index			*5.80*	*4.87*	*4.67*	*4.65*
BBgBarc US Aggregate TR			*8.74*	*5.32*	*4.30*	*3.82*
InvMetrics Public DB Total Fix Inc Net Median			*6.65*	*4.33*	*3.76*	*4.09*
Core Fixed Composite	314,112,093	10.55	7.61	5.33	4.68	4.32
BBgBarc US Aggregate TR			*8.74*	*5.32*	*4.30*	*3.82*
InvMetrics Public DB US Fix Inc Net Median			*7.01*	*4.42*	*3.78*	*3.57*
High Yield Composite	157,923,926	5.30	0.10	2.98	4.38	6.55
BBgBarc US High Yield TR			*0.03*	*3.33*	*4.79*	*6.68*
InvMetrics Public DB US Fix Inc Net Median			*7.01*	*4.42*	*3.78*	*3.57*
Alternatives	486,858,165	16.35	-8.56	0.00	0.00	0.00
Alternatives Index			*-4.15*	*0.00*	*0.00*	*0.00*
Private Credit	205,432,991	6.90	0.62	5.68	0.00	0.00
Private Credit Index			*5.57*	*7.18*	*0.00*	*0.00*
Infrastructure	126,032,832	4.23	4.12	0.00	0.00	0.00
CPI + 4% (Unadjusted)			*4.67*	*5.78*	*5.61*	*5.75*
Midstream Energy	125,480,584	4.21	-34.29	0.00	0.00	0.00
Alerian Midstream Energy Index			*-29.45*	*-8.91*	*-6.55*	*0.00*
Private Equity	29,911,758	1.00	4.39	0.00	0.00	0.00
Private Equiy Index			*-9.91*	*0.00*	*0.00*	*0.00*
Real Estate Composite	289,759,007	9.73	-1.34	4.41	6.48	10.24
Real Estate Index			1.60	4.48	6.73	10.74
InvMetrics Public DB Real Estate Pub+Priv Net Median			0.98	5.16	7.09	10.46
Private Real Estate Composite	289,746,563	9.73	-0.49	4.21	5.99	9.62
NCREIF ODCE			*2.23*	*5.66*	*7.31*	*10.80*
Public Real Estate Composite	12,444	0.00	-9.81	2.46	5.81	10.44
Wilshire RESI			*-12.39*	*0.21*	*4.20*	*9.34*
eV US REIT Net Median			*-7.08*	*2.12*	*5.20*	*9.81*
Cash & Equivalents Composite	1,154,472	0.04	1.39	1.68	1.22	0.68
91 Day T-Bills			*1.30*	*1.66*	*1.13*	*0.59*

Calculations are prepared by NEPC, LLC using a time-weighted rate of return based on market values.

Target and Actual Asset Allocation
As of June 30, 2020

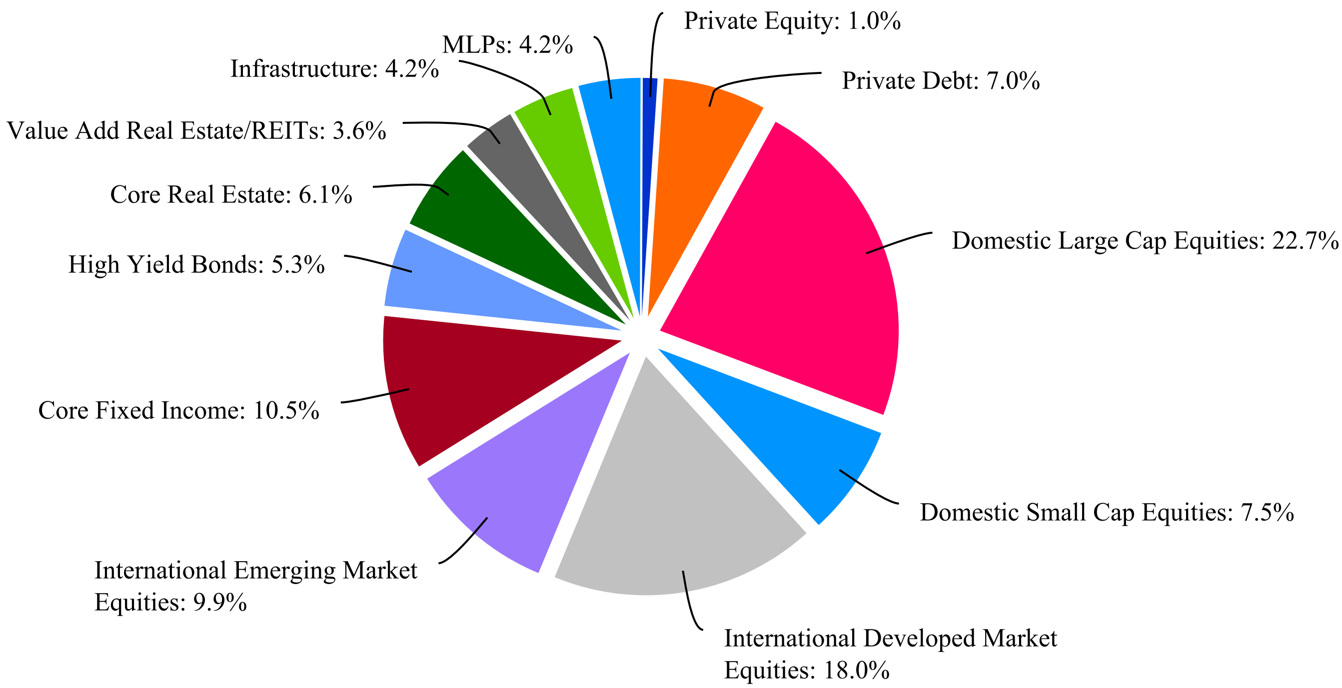
Asset Class	Current Target	Allocation Range	Actual
Domestic Large Cap Equities	15.8%	10.0% - 26.0%	22.7%
Domestic Small Cap Equities	7.2%	2.0% - 12.0%	7.5%
International Developed Market Equities	19.0%	14.0% - 24.0%	18.0%
International Emerging Market Equities	7.0%	3.0% - 9.0%	9.9%
Core Fixed Income	10.0%	7.0% - 15.0%	10.5%
High Yield Bonds	5.0%	4.0% - 12.0%	5.3%
Core Real Estate	11.0%	7.0% - 15.0%	6.1%
Value Add Real Estate/REITs	4.0%	2.0% - 6.0%	3.6%
Infrastructure	4.0%	2.0% - 6.0%	4.2%
Midstream Energy (MLPs)	5.0%	2.0% - 8.0%	4.2%
Private Equity	4.0%	0.0% - 10.0%	1.0%
Private Debt	8.0%	4.0% - 12.0%	7.0%
Short-Term Investments	0.0%	0%	0%

Target Asset Allocation*
As of June 30, 2020



* Short-Term Investments is 0%.

Actual Asset Allocation*
As of June 30, 2020



* Short-Term Investments is 0%.

Largest Stock Holdings (by Market Value)

As of June 30, 2020

	Shares	Stock Holding	Market Value
1)	162,569	TENCENT HLDGS LIMITED COMMON STOCK	$ 10,458,351
2)	517,742	MLP ENTERPRISE PRODS PARTNERS L P COM	9,407,373
3)	202,222	SAMSUNG ELECTRONICS CO KRW5000	8,876,692
4)	811,753	TAIWAN SEMICONDUCTOR MANUFACTURING TWD10	8,611,528
5)	8,618	MERCADOLIBRE INC COM STK	8,495,489
6)	31,065	ADR ALIBABA GROUP HOLDING LTD SPON ADS E	6,700,719
7)	56,401	NESTLE SA CHF0.10(REGD)	6,234,410
8)	862,703	MLP ENERGY TRANSFER LP COMMON UNITS REP	6,142,448
9)	337,728	MLP MPLX LP COM UNIT REPSTG LTD PARTNER	5,835,934
10)	130,778	TC ENERGY CORPORATION	5,600,151
Total Largest Stock Holdings			**$ 76,363,095**

Largest Bond Holdings (by Market Value)

As of June 30, 2020

	Share/Par Value	Bond Holding	Coupon Rate	Maturity Date	Market Value
1)	3,200,612	SLC STUDENT LN TR 2006-1 ASSET BACKED NT	0.473%	15 Mar 2055	$ 2,921,131
2)	1,662,266	UNITED STATES TREAS BDS 3.625% DUE	3.625%	15 Aug 2043	2,427,947
3)	2,194,515	FNMA POOL #MA3307 4.5% DUE 03-01-2048	4.500%	1 Mar 2048	2,356,154
4)	1,861,571	FEDERAL HOME LN MTG CORP POOL #G61080	4.500%	1 Mar 2047	2,053,882
5)	1,547,627	CHARTER COMMUNICATIONS OPER LLC /	6.484%	23 Oct 2045	2,046,345
6)	1,356,562	UNITED STATES TREAS BDS BD 3.125% DUE	3.125%	15 Feb 2043	1,839,307
7)	1,752,339	PVTPL CCO HLDGS LLC/CAP CORP 4.75% DUE	4.750%	1 Mar 2030	1,792,976
8)	1,778,123	GNMA SER 2017-H22 CL MX-FH	2.178%	20 Nov 2067	1,774,274
9)	1,622,145	FEDERAL HOME LN MTG CORP POOL #Q55948	4.500%	1 May 2048	1,745,442
10)	1,441,176	UBER TECHNOLOGIES INC 7.5% DUE	7.500%	15 Sep 2027	1,444,779
Total Largest Bond Holdings					**$ 20,402,237**

A complete list of portfolio holdings is available upon request.

Brokerage Commission Recapture

The System participates in a commission recapture program offered by Northern Trust Securities Inc. (NTSI). Investment Managers are instructed to seek best execution and to seek to minimize omission and market impact costs when trading securities. Consistent with the pursuit of best execution, equity managers participating in the Brokerage Commission Recapture Program are to give consideration to executing a portion of the trades for their account through brokerage firms identified by NTSI as eligible Broker Dealer firms. The System receives a rebate in the amount of 80 percent for domestic and 70 percent for international of the total commissions directed through the NTSI Network. For fiscal years ended June 30, 2020 and 2019, the net income from Brokerage Commission Recapture was $4,056 and $13,773, respectively. During these periods, the overall participating rate by the System's equity managers was 3.38 percent and 5.85 percent, respectively. The percentage of equity trading being executed through the program is generally at a low cost and has resulted over the years in a meaningful cost recapture. Program economics are tough in the lower commission environment and participation by the System's investment managers is voluntary.

Schedule of Commissions

For The Fiscal Year Ended June 30, 2020

Brokerage Firm	Total Commissions	Number of Shares	Commission Cost/Share
UBS AG LONDON BRANCH	$ 15,870	2,132,859	$ 0.0074
B.RILEY & CO. LLC	14,132	471,066	0.0300
CREDIT SUISSE SECURITIES (USA) LLC	13,671	6,653,444	0.0021
PIPER JAFFRAY & CO	12,233	985,528	0.0124
RBC CAPITAL MARKETS, LLC	11,443	14,158,906	0.0008
MKM PARTNERS LLC	10,909	384,420	0.0284
WELLS FARGO BANK MINNESOTA NA	9,744	6,083,148	0.0016
VIRTU AMERICAS LLC	9,013	352,416	0.0256
GOLDMAN, SACHS & CO.	8,146	13,182,109	0.0006
MERRILL LYNCH INTERNATIONAL LIMITED	8,113	3,593,102	0.0023
	$ 113,274	47,996,998	$ 0.0024
All Other Brokerage Firms	238,629	731,569,071	0.0003
TOTAL	$ 351,903	779,566,069	$ 0.0005

Investment Summary

For The Fiscal Year Ended June 30, 2020

	Investment Value	Percent of Fund	Investment Management Fees
Equity			
Domestic	$ 599,330,006	36.7%	$ 972,908
International Developed Market	278,817,237	17.1%	1,289,751
International Emerging Market	57,459,201	3.5%	478,378
Fixed Income	252,704,658	15.5%	827,248
Alternatives	266,776,428	16.3%	5,001,334
Real Estate	161,635,856	9.9%	3,964,918
Short-term Investments	16,747,278	1.0%	—
Total	$ 1,633,470,664	100.0%	$ 12,534,537

Assets will be invested and administered to balance the need to control risk with superior performance.

We expect excellence in all activities. We will also be accountable and act in accordance with the law.

ACTUARIAL

Actuarial Certification Letter

Segal

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November 23, 2020

Board of Retirement
City of Fresno Fire and Police Retirement System
2828 Fresno Street, Suite 201
Fresno, CA 93721-1327

**Re: City of Fresno Fire and Police Retirement System
June 30, 2020 Actuarial Valuation**

Dear Members of the Board:

Segal prepared the June 30, 2020 annual actuarial valuation of the City of Fresno Fire and Police Retirement System. We certify that the valuation was performed in accordance with generally accepted actuarial principles and practices and the System's funding policy that was last reviewed with the Board in 2012 and the amendment made to lengthen the period used to amortize the actuarial surplus in 2018. We have also reflected the change to the interest crediting rate assumption for the DROP benefits that are credited to a DROP account, which has been reduced to 3 percent below the average net rate of return after the June 30, 2020 valuation. It is our understanding that the assumptions and methods used for funding purposes meet the parameters set by Actuarial Standards of Practice (ASOPs).

As part of the June 30, 2020 actuarial valuation, Segal conducted an examination of all participant data for reasonableness. 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 System's financial statements. For actuarial valuation purposes, Plan assets are valued at Actuarial Value. Under this method, the assets used to determine employer contribution rates take into account fair value by recognizing the differences between the total actual investment return at fair value and the expected investment return over a five-year period.

One of the general goals of an actuarial valuation is to establish contribution rates which, over time, will remain level as a percentage of payroll 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 prefunded actuarial accrued liability or unfunded actuarial accrued liability (UAAL). The UAAL is amortized over different periods depending on the source.

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Effective with the June 30, 2013 valuation, any new UAAL established as a result of actuarial gains or losses or plan amendments are amortized over separate 15-year declining periods (with the exception of temporary retirement incentives which are amortized over a separate declining period of up to 5 years). Any new UAAL established as a result of changes in actuarial assumptions or methods at each valuation is amortized over separate 25-year declining periods. Any actuarial surplus (when the funded ratio is over 110%) will be amortized over a non-declining 30-year period. The progress being made towards meeting the funding objective through June 30, 2020 is illustrated in the Schedule of Funding Progress.

Notes number 1, 3 and 4 to the Basic Financial Statements and the Required Supplemental Information (RSI) included in the Financial Section were prepared by the System based on the results of the Governmental Accounting Standards Statement No. 67 (GAS 67) actuarial valuation as of June 30, 2020 prepared by Segal. For the Financial Section of the Comprehensive Annual Financial Report (CAFR), Segal provided the Schedule of Funding Progress, Schedule of Changes in Net Pension Liability and Schedule of Employer Contributions as shown in the RSI. A listing of the other supporting schedules Segal prepared for inclusion in the Actuarial and Statistical Sections of the System's CAFR is provided below. These schedules were prepared based on the results of the actuarial valuation as of June 30, 2020 for funding purposes.

1. Summary of Actuarial Assumptions and Methods;
2. Schedule of Funded Liabilities by Type; and
3. Actuarial Analysis of Financial Experience.

The valuation assumptions included in the Actuarial Section were adopted by the Retirement Board based on the Analysis of Actuarial Experience During the Period July 1, 2015 through June 30, 2018 and the Review of Economic Actuarial Assumptions for the June 30, 2019 Actuarial Valuation. It is our opinion that the assumptions used in the June 30, 2020 valuation produce results, which, in the aggregate, reflect the future experience of the Plan. Actuarial valuations are performed on an annual basis. An experience analysis is performed every three years. The next experience analysis is due to be performed as of June 30, 2021 and those assumptions will be used in the June 30, 2022 valuation. The Retirement System utilizes the actuarial surplus to provide contribution rate offsets and a Post Retirement Supplemental Benefit (PRSB) benefit. The impact of the application of the actuarial surplus on the future financial condition of the Plan has not been explicitly measured in the valuation.

In the June 30, 2020 valuation, the ratio of the valuation assets to actuarial accrued liabilities decreased from 117.0% to 116.3%. The aggregate employer rate has decreased from 22.82%[1] of payroll to 22.56%[2] of payroll, and the aggregate member rate has decreased from 8.99% of payroll to 8.98% of payroll.

[1] *This rate has been decreased by 2.78% of payroll as a result of surplus allocation.*

[2] *This rate has been decreased by 2.53% of payroll as a result of surplus allocation.*

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As a result of using the actuarial value of assets in the actuarial valuation, there were $63.5 million in unrecognized deferred investment losses as of June 30, 2020, which represented 3.9% of the fair value of assets. This is a deterioration from last year's amount of $6.1 million in unrecognized deferred investment gains. If $63.5 million in deferred investment gains were recognized immediately in the actuarial value of assets, the funded percentage would decrease from 116.3% to 111.5% and the aggregate employer rate would increase from 22.56% of payroll to 24.49% of payroll.

The undersigned are Members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Sincerely,

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

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

JY/jl
Enclosures

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Summary of Actuarial Assumptions and Funding Method

These actuarial assumptions and methods based on June 30, 2020 data were adopted by the City of Fresno Fire and Police System (the System) Retirement Board on November 26, 2020, and were effective for July 1, 2021.

Assumptions

Valuation Interest Rate	7.00%
Inflation:	2.75%

Post-Retirement Mortality

(a) Service Retirement

Pub-2010 Safety Healthy Retiree Amount-Weighted Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2018.

Beneficiary: Pub-2010 General Healthy Retiree Amount Weighted Mortality Table (separate tables for males and females) times 105%, projected generationally with the two-dimensional mortality improvement scale MP-2018.

(b) Disability Retirement

Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females), projected generationally with the two dimensional mortality improvement scale MP-2018.

Pre-Retirement Mortality

Based upon the Analysis of Actuarial Experience during the period July 1, 2015 through June 30, 2018.

Withdrawal Rates

Based upon the Analysis of Actuarial Experience during the period July 1, 2015 through June 30, 2018.

Disability Rates

Based upon the Analysis of Actuarial Experience during the period July 1, 2015 through June 30, 2018.

Service Retirement Rates

Based upon the Analysis of Actuarial Experience during the period July 1, 2015 through June 30, 2018.

Assets

Five-year smoothed recognition of realized and unrealized capital gains and losses greater or lesser than the actuarial assumed rate of return.

Funding Method

The System's liability is being funded on the Entry Age Normal Cost method with the Unfunded Actuarial Accrued Liability (UAAL) amortized as a level percentage of payroll. There is no UAAL as of June 30, 2020.

The System's funding policy for determining Total Pension Liability (for funding purposes) uses a version of the Entry Age method whereby the Actuarial Accrued Liability is fully accrued when a member retires from employment after participating in DROP (Deferred Retirement Option Program). While for financial reporting purposes only, in accordance with GASB 67 provisions, for determining Total Pension Liability, the Actuarial Accrued Liability is fully accrued when a member either enters DROP or is expected to elect DROP. (See page 32 of the Financial Section and pages 60 and 61 of the Required Supplementary Information on the different actuarial assumptions used for financial reporting versus funding progress.)

Summary of Actuarial Assumptions and Funding Method Continued

Cost-of-Living Adjustment (COLA) Assumption

The annual cost-of-living adjustment (COLA) is 3.00% for Tier 2 members and 3.25% for Tier 1 members and retirees who have retired with the final average formula, or with the career average formula.

DROP Assumptions

	Tier 1	Tier 2
1st year eligible	100%	40%
Following year	0%	10%
Next following year	0%	5%
Thereafter	0%	0%

Members are assumed to remain in the Deferred Retirement Option Program (DROP) for 7 years.

Ultimate Salary Scale

5.85% for the first five years of service. Graded increases thereafter ranging from 1.70% at age 25 to 0.40% at ages 50 and over. Of the total salary increases assumed, 3.00% is for inflation, plus 0.50% real across-the-board salary increase.

Probabilities of Separation Prior to Retirement

Age	Mortality – Tier 1 and Tier 2 Rate (%) Male	Mortality – Tier 1 and Tier 2 Rate (%) Female
25	0.03	0.01
30	0.03	0.02
35	0.04	0.02
40	0.04	0.03
45	0.07	0.05
50	0.11	0.08
55	0.20	0.13
60	0.35	0.19
65	0.60	0.26

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

	Rate (%) Disability			
	Tier 1		Tier 2	
Age	Duty	Non-Duty	Duty	Non-Duty
20	0.02	0.00	0.14	0.00
25	0.14	0.01	0.29	0.01
30	0.26	0.01	0.50	0.01
35	0.39	0.03	0.72	0.03
40	0.60	0.12	0.98	0.12
45	0.88	0.25	1.22	0.25
50	2.80	0.20	1.48	0.20
55	8.20	0.00	1.78	0.00
60	0.00	0.00	0.00	0.00

	Rate (%) Total Termination (Less Than 5 years of service)	
Service	Tier 1	Tier 2
0 – 1	4.47	12.00
1 – 2	4.47	8.00
2 – 3	4.47	2.00
3 – 4	4.47	1.50
4 – 5	4.47	1.00

100% of members are assumed to elect a withdrawal of contributions. No termination is assumed after a member is assumed to retire.

	Rate (%) Total Termination (5 or more years of service)		
	Tier 1		
Age	5-10 Years	10+ Years	Tier 2
20	2.87	3.57	3.10
25	2.87	3.57	2.85
30	1.88	2.63	2.36
35	0.87	1.44	1.74
40	0.44	0.92	1.32
45	0.19	0.63	0.96
50	0.00	0.00	0.00

100% of Tier 1 members with 5 – 10 years of service, 0% of Tier 1 members with 10+ years of service and 50% of Tier 2 members with 5+ years of service are assumed to elect a withdrawal of contributions. The remaining members are assumed to elect a deferred vested benefit. No termination is assumed after a member is assumed to retire.

Schedule of Active Member Valuation Data

Valuation Date	Active/DROP	Number	Annual Payroll	Annual Average Pay	% Increase (Decrease) in Average Pay
June 30, 2020	Active Members	999	$ 105,679,917	$ 105,786	5.2%
	DROP Participants	97	12,222,365	126,004	1.6%
	Totals	**1,096**	**$ 117,902,282**	**$ 231,790**	
June 30, 2019	Active Members	1,033	$ 103,910,274	$ 100,591	4.6%
	DROP Participants	90	11,163,174	124,035	4.3%
	Totals	**1,123**	**$ 115,073,448**	**$ 224,626**	
June 30, 2018	Active Members	1,043	$ 100,270,371	$ 96,137	3.6%
	DROP Participants	90	10,701,563	118,906	5.4%
	Totals	**1,133**	**$ 110,971,934**	**$ 215,043**	
June 30, 2017	Active Members	990	$ 91,850,923	$ 92,779	1.1%
	DROP Participants	96	10,828,198	112,794	1.1%
	Totals	**1,086**	**$ 102,679,121**	**$ 205,573**	
June 30, 2016	Active Members	947	$ 86,884,960	$ 91,748	(2.5)%
	DROP Participants	107	11,932,935	111,523	1.3%
	Totals	**1,054**	**$ 98,817,895**	**$ 203,271**	
June 30, 2015	Active Members	880	$ 82,820,376	$ 94,114	(0.8)%
	DROP Participants	113	12,441,847	110,105	2.3%
	Totals	**993**	**$ 95,262,223**	**$ 204,219**	
June 30, 2014	Active Members	872	$ 82,701,177	$ 94,841	(2.2)%
	DROP Participants	126	13,557,816	107,602	(3.1)%
	Totals	**998**	**$ 96,258,993**	**$ 202,443**	
June 30, 2013	Active Members	899	$ 87,164,227	$ 96,957	4.1%
	DROP Participants	122	13,540,941	110,991	3.9%
	Totals	**1,021**	**$ 100,705,168**	**$ 207,948**	
June 30, 2012	Active Members	939	$ 87,461,980	$ 93,144	1.6%
	DROP Participants	123	13,133,740	106,778	8.1%
	Totals	**1,062**	**$ 100,595,720**	**$ 199,922**	
June 30, 2011	Active Members	953	$ 87,339,861	$ 91,647	1.3%
	DROP Participants	118	11,659,869	98,812	9.0%
	Totals	**1,071**	**$ 98,999,730**	**$ 190,459**	

Schedule of Retirees and Beneficiaries Added to or Removed from Rolls

	Added to Rolls		Removed from Rolls		Rolls at Fiscal Year End			
Fiscal Year Ended June 30	Number	Annual Allowance	Number	Annual Allowance	Number	Annual Allowance	Average Annual Allowance	% Increase / (Decrease) in Retiree Allowance
2020	51	$1,341,603	(30)	($1,012,050)	1,106	$66,983,928	$60,564	0.92
2019	48	$1,585,314	(29)	($676,320)	1,085	$65,113,142	$60,012	2.34
2018	51	$1,231,992	(31)	($708,568)	1,066	$62,510,828	$58,641	4.41
2017	55	$1,432,672	(20)	($456,710)	1,046	$58,748,302	$56,165	2.48
2016	32	$728,058	(26)	($730,485)	1,011	$55,408,166	$54,805	2.55
2015	48	$1,429,630	(21)	($514,195)	1,005	$53,711,161	$53,444	(0.58)
2014	41	$1,068,770	(31)	($703,986)	978	$52,573,897	$53,757	0.05
2013	48	$1,438,868	(40)	($856,967)	968	$52,011,489	$53,731	0.39
2012	31	$481,428	(19)	($413,006)	960	$51,378,999	$53,520	0.36
2011	71	$1,895,852	(25)	($691,254)	948	$50,556,250	$53,329	(3.09)

Solvency Test (In thousands)

	Aggregate Accrued Liabilities for				Portion of Accrued Liabilities Covered by Reported Asset		
Valuation Date as of June 30	Active Member Contributions	Retirees and Beneficiaries (Includes Deferred Vested)	Active Members (Employer Financed Portion)	Actuarial Valuation Value of Assets	Active Member Contributions	Retirees and Beneficiaries (Includes Deferred Vested)	Active Members (Employer Financed Portion)
2020	$180,093	$880,163	$270,890	$1,547,641	100%	100%	100%
2019	173,489	839,837	264,423	1,495,023	100%	100%	100%
2018	165,233	801,931	227,567	1,436,725	100%	100%	100%
2017	154,607	770,352	206,389	1,354,974	100%	100%	100%
2016	143,208	728,510	195,698	1,276,604	100%	100%	100%
2015	131,828	713,712	174,376	1,220,269	100%	100%	100%
2014	124,550	717,618	163,860	1,142,649	100%	100%	100%
2013	115,277	711,124	171,435	1,061,399	100%	100%	100%
2012	107,138	697,622	148,106	1,003,929	100%	100%	100%
2011	96,649	678,264	143,028	1,022,996	100%	100%	100%

Actuarial Analysis of Financial Experience
(Dollars in Millions)

	Plan Years									
	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Prior Valuation Actuarial Accrued Liability	$1,278	$1,195	$1,131	$1,067	$1,020	$1,006	$998	$953	$918	$919
Salary Increase Greater/ (Less) than Expected	14	—	5	(9)	(28)	(10)	(20)	(1)	(6)	(9)
Asset Return (Greater)/ Less than Expected	—	—	—	—	—	—	—	—	—	—
COLA Increase Greater/(Less) than Expected	(4)	(5)	(6)	11	(24)	(27)	(23)	(23)	(10)	(26)
Other Experience	(5)	1	9	11	8	1	—	(1)	2	(2)
Economic Assumption Changes	(14)	31	3	—	50	—	—	20	—	—
Non-economic Assumption Changes	—	—	—	—	—	—	—	—	—	—
Normal Cost	39	35	33	32	30	30	30	28	28	29
Interest	88	85	81	76	76	75	74	75	73	73
Payments	(65)	(64)	(61)	(57)	(55)	(54)	(53)	(53)	(52)	(49)
Change in Valuation Programs and Methods	—	—	—	—	(10)	(1)	—	—	—	(17)
Ending Actuarial Accrued Liability	**$1,331**	**$1,278**	**$1,195**	**$1,131**	**$1,067**	**$1,020**	**$1,006**	**$998**	**$953**	**$918**

Schedule of Funding Progress
(Dollars in Millions)

Actuarial Valuation As of June 30	(1) Actuarial Valuation Value of Assets	(2) Actuarial Accrued Liability (AAL)	(3) Percentage Funded (1) / (2)	(4) (Prefunded) / Unfunded AAL (3)	(5) Annual Covered Payroll	(6) (Prefunded) / Unfunded AAL Percentage of Covered Payroll (4) / (5)
2020	$1,548	$1,331	116.3%	($216)	$118	(183.60%)
2019	$1,495	$1,278	117.0%	($217)	$115	(188.80%)
2018	$1,437	$1,195	120.3%	($242)	$111	(218.10%)
2017	$1,355	$1131	119.8%	($224)	$103	(217.80%)
2016	$1,277	$1067	119.6%	($209)	$99	(211.70%)
2015	$1,220	$1020	119.6%	($200)	$95	(210.30%)
2014	$1,143	$1006	113.6%	($137)	$96	(141.90%)
2013	$1,061	$998	106.4%	($64)	$101	(63.10%)
2012	$1,004	$953	105.4%	($51)	$101	(50.80%)
2011	$1,023	$918	111.4%	($105)	$99	(106.10%)

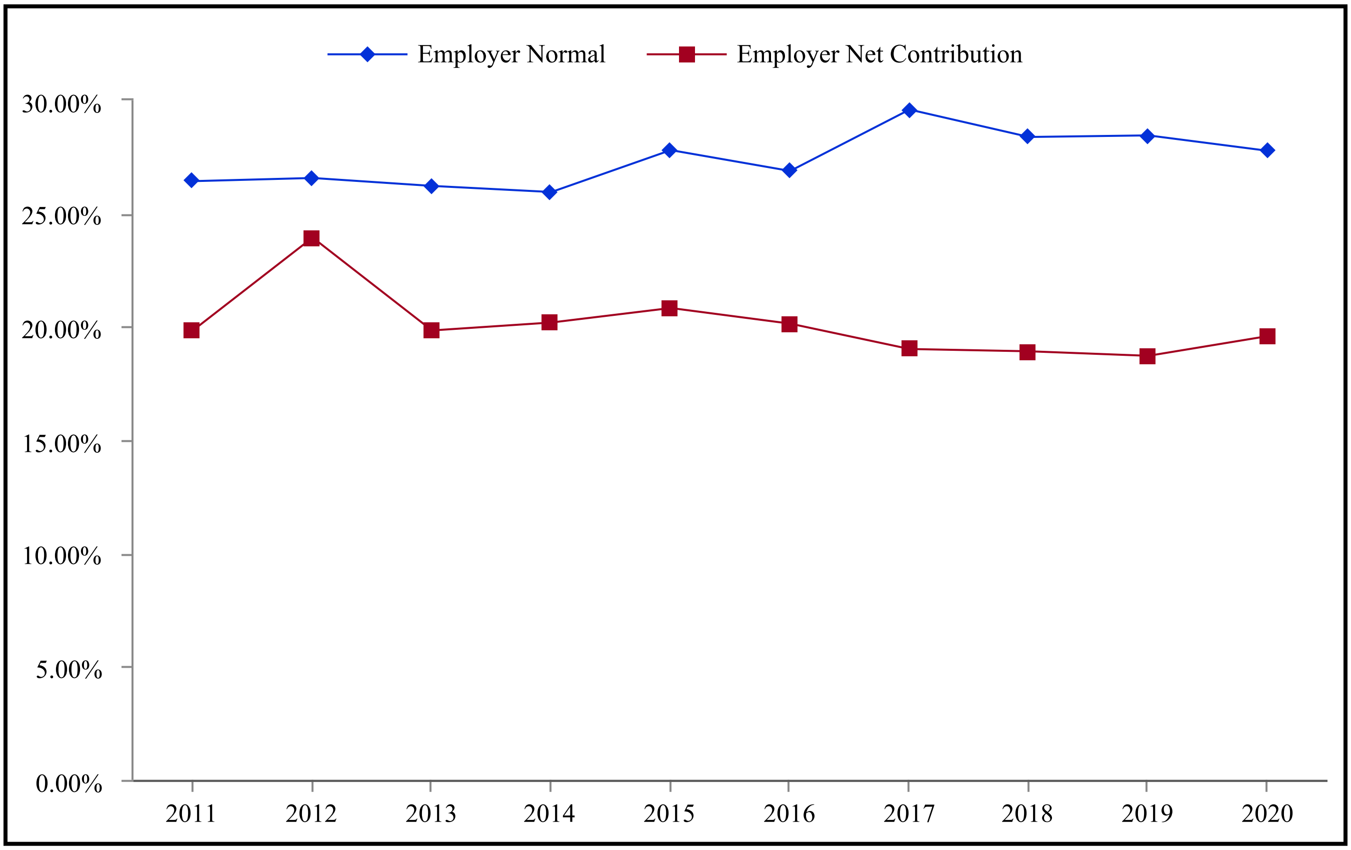
Major Benefit Provisions of the Retirement System

	Fire & Police First Tier	Fire & Police Second Tier
Coverage	All Fire and Police employees hired on or after October 27, 1927, and before August 27, 1990.	All Fire and Police employees hired on or after August 27, 1990.
Final Average Salary (FAS)	A. Three-year final average salary; or B. Salary attached to rank average-service weighted compensation for each rank held.	A. Highest three consecutive year average.
Service Retirement	Requirement: Age 50 and 10 years of Service, or age 60. Benefit: (1) and (2) 1. 2¾% of FAS times years of service before age 50, not to exceed 20 years. 2. 2% of FAS times years of service after age 50, not to exceed 10 years Maximum Benefit: 75% of FAS	Requirement: Age 50 and 5 years of service. Benefit: Retirement Age — Benefit Formula 50 — 2.00% x FAS x service 51 — 2.14% x FAS x service 52 — 2.28% x FAS x service 53 — 2.42% x FAS x service 54 — 2.56% x FAS x service 55 and over — 2.70% x FAS x service Maximum Benefit: 75% of FAS
Deferred Retirement Option Program (DROP)	An employee who is age 50 with 10 years of service may join the DROP program which is in essence an alternative form of retirement distribution. Retirement amount is calculated and monthly deposits are made to the employee's DROP account while the employee continues to work for a maximum of 10 years.	An employee who is age 50 with 5 years of service may join the DROP program which is in essence an alternative form of retirement distribution. Retirement amount is calculated and monthly deposits are made to the employee's DROP account while the employee continues to work for a maximum of 10 years.
Disability Retirement	a. Requirements: 1. Service-Connected: None 2. Non-Service Connected: 10 years of service. b. Benefit: 1. Service-Connected: 55% of FAS or service retirement, if higher. 2. Non-Service Connected: 1.65% x FAS x years of service, if exceeds 36.67% of FAS; or 36.67% of FAS; or service retirement, if higher. Benefit reduced to the extent that income earned while on disability and the amount of the disability retirement benefits exceeds the current salary attached to the last rank held.	a. Requirements: 1. Service-Connected: None 2. Non-Service Connected: 10 years of service. b. Benefit: 1. Service-Connected: 50% of FAS or service retirement, if higher. 2. Non-Service Connected: 1½% x FAS x years of service, if exceeds 1/3 of FAS; or 1/3 of FAS; or service retirement, if higher. Benefit reduced to the extent that income earned while on disability and the amount of the disability retirement benefits exceeds the current salary attached to the last rank held.

Major Benefit Provisions of the Retirement System Continued

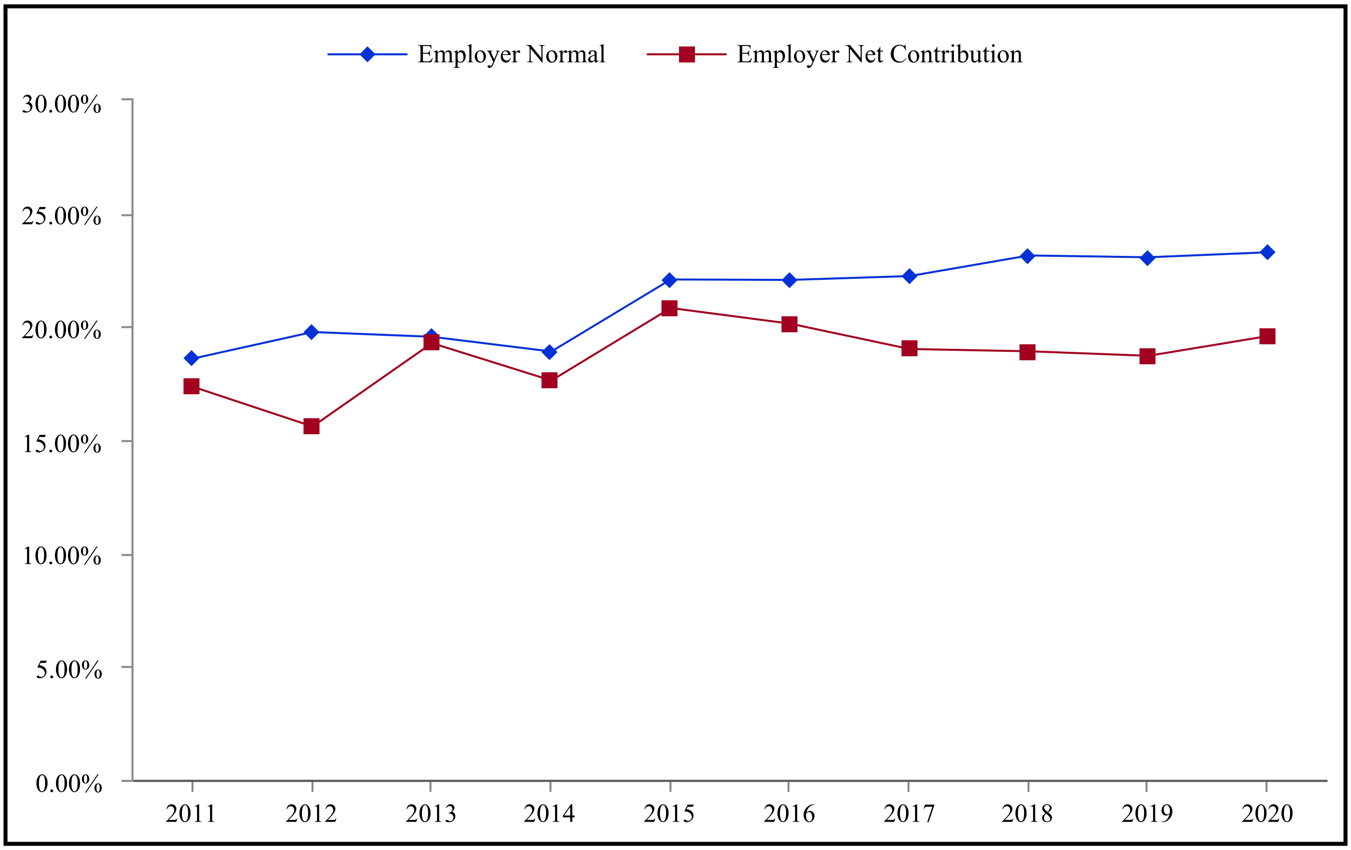
	Fire & Police First Tier	Fire and Police Second Tier
Death Before Retirement	a. Before eligible to retire for disability (less than 5 years). 1. One month's salary for each year of service, not-to-exceed 6 months. 2. Return of contributions with interest. a. While eligible to retire (after 10 years): 2/3 of Service or Non-Service-connected Disability Retirement Benefit. b. Service-Connected Death: 55% of FAS	a. Before eligible to retire (less than 5 years). 1. One month's salary for each year of service, not-to-exceed 6 months. 2. Return of contributions with interest. a. While eligible to retire (after 5 years): 2/3 of Service or Non-Service-connected Disability Retirement Benefit b. Service-Connected Death: 50% of FAS
Death After Retirement	Two-thirds of the member's allowance continued to eligible spouse for life.	Two-thirds of the member's allowance continued to eligible spouse for life.
Withdrawal Benefits	a. If less than 10 years of service, return of contributions. b. If greater than 10 years of service, right to have vested deferred retirement benefit at normal retirement date.	a. If less than 5 years of service, return of contributions. b. If greater than 5 years of service, right to have vested deferred retirement benefit.
Post Retirement Supplemental Benefit (PRSB)	On May 27, 1998, the City Council adopted the Post Retirement Supplemental Benefit ("PRSB") Program which is intended to provide assistance to retirees to pay for various post retirement expenses. Annually, after an actuarial study has been performed, the Retirement Board will review the availability of surplus earnings in the System and determine whether a benefit can be paid to eligible PRSB recipients. If a surplus is declared by the Retirement Board, PRSB benefit payments will be calculated for eligible recipients and payments for the following calendar year will begin in January.	On May 27, 1998, the City Council adopted the Post Retirement Supplemental Benefit ("PRSB") Program which is intended to provide assistance to retirees to pay for various post retirement expenses. Annually, after an actuarial study has been performed, the Retirement Board will review the availability of surplus earnings in the System and determine whether a benefit can be paid to eligible PRSB recipients. If a surplus is declared by the Retirement Board, PRSB benefit payments will be calculated for eligible recipients and payments for the following calendar year will begin in January.
Cost of Living Benefits	a. Based on the weighted mean average compensation attached to all ranks in the department, limited to a 5% maximum change per year, if based on three-year FAS. b. Based on salary increase for each rank held, if benefit was calculated on salary attached to average rank.	a. Based on the Consumer Price Index for all Urban Wage Earners and all Clerical Workers (U.S. City Average) limited to 3% change per year.
Member Contribution Rates	Varies based on entry age.	9% of Compensation.

History of Employer Net Contribution Rates (Tier 1)



Fiscal Year Ending June 30	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Employer Normal	26.43 %	26.57 %	26.22 %	25.95 %	27.80 %	26.88 %	29.59 %	28.38 %	28.45 %	27.77 %
Prefunded Liability/Prepaid Contributions	6.58 %	2.63 %	6.38 %	5.76 %	6.97 %	6.74 %	10.57 %	9.46 %	9.73 %	8.18 %
Employer Net Contribution	**19.85%**	**23.94%**	**19.84%**	**20.19%**	**20.83%**	**20.14%**	**19.02%**	**18.92%**	**18.72%**	**19.59%**

History of Employer Net Contribution Rates (Tier 2)



Fiscal Year Ending June 30	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Employer Normal	18.60 %	19.77 %	19.56 %	18.91 %	22.09 %	22.07 %	22.24 %	23.15 %	23.07 %	23.29 %
Prefunded Liability/Prepaid Contributions	1.25 %	4.17 %	0.28 %	1.28 %	1.26 %	1.93 %	3.22 %	4.23 %	4.35 %	3.70 %
Employer Net Contribution	**17.35%**	**15.60%**	**19.28%**	**17.63%**	**20.83%**	**20.14%**	**19.02%**	**18.92%**	**18.72%**	**19.59%**

To create an environment in which Board Members can maximize their performance as trustees.

To improve business processes and our delivery of services provided to members and retirees.

To improve communications with members, retirees and the employer.

STATISTICAL

Statistical Section Review

This section provides additional historical perspective, context, and detail in order to provide a more comprehensive understanding of this year's financial statements, note disclosures, and supplementary information which covers the benefits provided by the City of Fresno Fire and Police Retirement System.

It also provides multi-year trend of financial and operation information to facilitate comprehensive understanding of how the organization's financial position and performance has changed over time.

More specifically, the financial and operating information provides contextual data for the System's net position, benefits, refunds, contribution rates and different types of retirement benefits.

The financial and operating trend information is located on the following pages.

Schedule of Changes in Fiduciary Net Position

Last Ten Fiscal Years 2011 - 2020

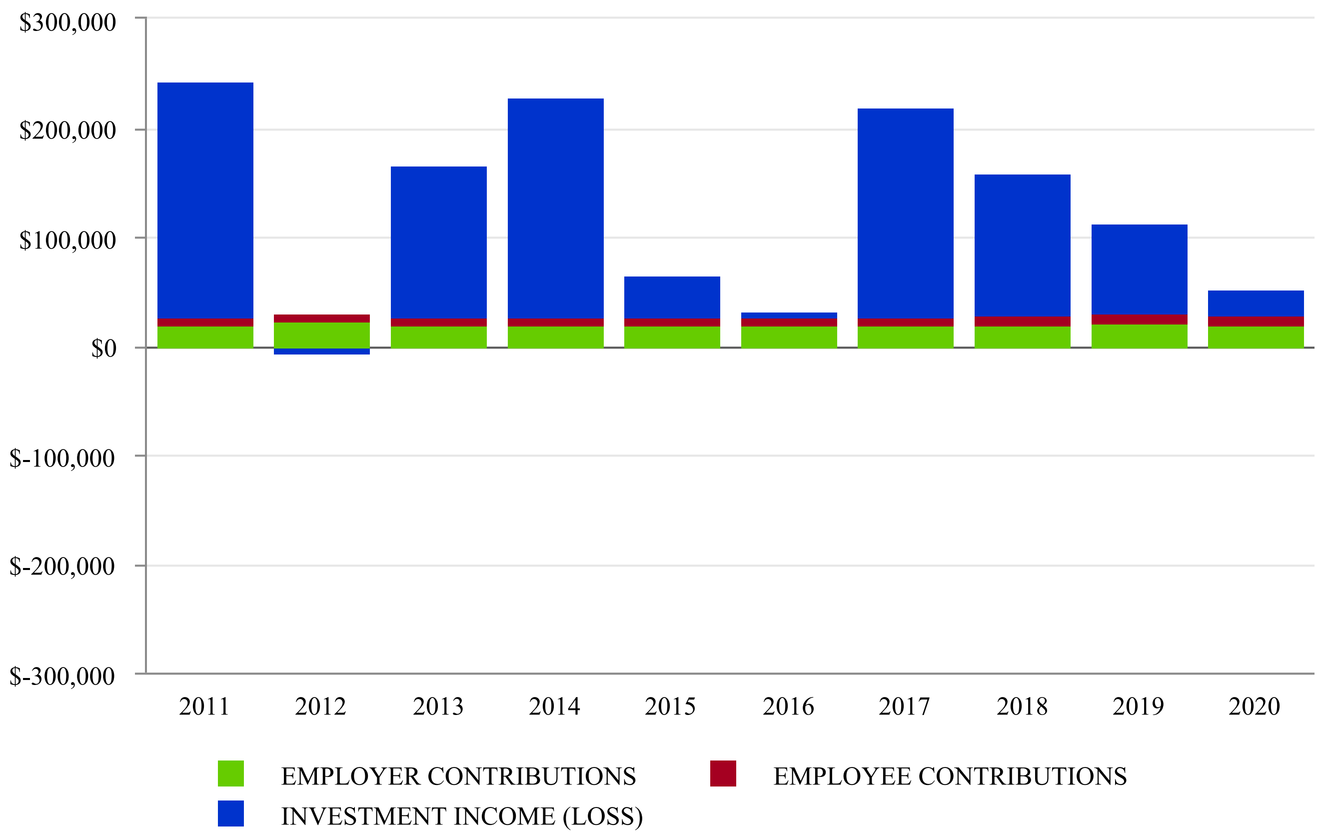
(Dollars in Millions)

	2020	2019	2018	2017	2016
Additions					
Employer Contributions	$ 22.3	$ 20.6	$ 19.7	$ 18.5	$ 18.7
Member Contributions	10.0	9.6	9.0	8.1	7.7
Investment Income (Loss)	24.2	82.9	129.1	192.3	6.10
Total Additions	$ 56.5	$ 113.1	$ 157.8	$ 218.9	$ 32.5
Deductions					
Benefit Payments	$ 65.0	$ 63.0	$ 60.5	$ 57.0	$ 54.4
Post Retirement Supplemental Benefits	2.0	2.1	2.0	1.7	1.0
Refunds	0.2	1.0	0.6	0.5	1.2
Administrative	1.8	1.8	1.7	1.5	1.4
Total Deductions	69.0	67.9	64.8	60.7	58.0
Change in Fiduciary Net Position	$ (12.5)	$ 45.2	$ 93.0	$ 158.2	$ (25.5)

	2015	2014	2013	2012	2011
Additions					
Employer Contributions	$ 19.0	$ 18.6	$ 18.7	$ 22.9	$ 19.4
Member Contributions	7.4	7.3	7.4	7.5	7.3
Investment Income (Loss)	39.1	201.8	140.7	(6.2)	215.9
Total Additions	$ 65.5	$ 227.7	$ 166.8	$ 24.2	$ 242.6
Deductions					
Benefit Payments	$ 53.5	$ 52.5	$ 51.8	$ 51.0	$ 48.9
Post Retirement Supplemental Benefits	0.2	0.1	0.2	0.4	1.7
Refunds	0.9	0.1	1.0	0.5	0.5
Administrative	1.1	1.1	1.2	1.1	1.0
Total Deductions	55.7	53.8	54.2	53.0	52.1
Change in Fiduciary Net Position	$ 9.8	$ 173.9	$ 112.6	$ (28.8)	$ 190.5

Schedule and Graph of Additions by Source (In Thousands)

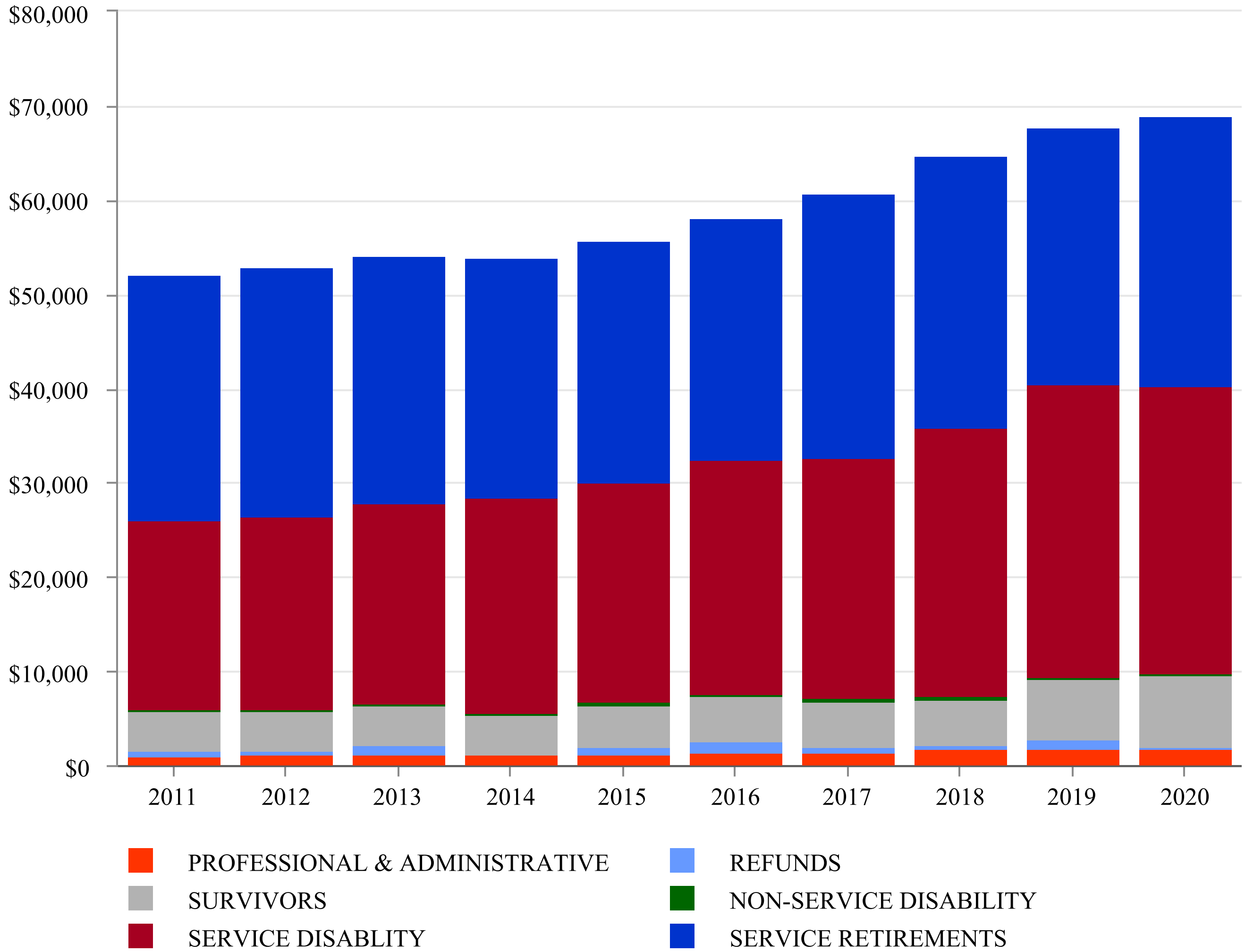
Last Ten Fiscal Years 2011 - 2020



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
EMPLOYER CONTRIBUTIONS	$ 19,397	$ 22,875	$ 18,725	$ 18,575	$ 18,967	$ 18,738	$ 18,543	$ 19,697	$ 20,604	$ 22,324
EMPLOYEE CONTRIBUTIONS	7,304	7,540	7,398	7,294	7,385	7,748	8,169	8,964	9,597	10,012
INVESTMENT INCOME (LOSS)	215,994	(6,201)	140,701	201,838	39,164	6,063	192,318	129,162	82,872	24,205
TOTAL	$ 242,695	$ 24,214	$ 166,824	$227,707	$ 65,516	$ 32,549	$ 219,030	$157,823	$ 113,073	$ 56,541

Schedule and Graph of Deductions by Type (In Thousands)

Last Ten Fiscal Years 2011 - 2020



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
SERVICE RETIREMENTS	$26,088	$26,531	$26,332	$25,338	$25,657	$25,662	$28,079	$28,855	$27,381	$28,753
SERVICE DISABLITY	20,012	20,464	21,250	22,848	23,336	24,753	25,539	28,533	31,033	30,529
NON-SERVICE DISABILITY	244	242	242	339	348	340	350	280	285	170
SURVIVORS	4,212	4,142	4,188	4,049	4,370	4,653	4,780	4,843	6,414	7,532
REFUNDS	494	535	970	146	901	1,173	525	560	849	218
PROFESSIONAL & ADMINISTRATIVE	1,080	1,118	1,182	1,119	1,108	1,503	1,503	1,710	1,897	1,839
TOTAL	$52,130	$53,032	$54,164	$53,839	$55,720	$58,084	$60,776	$64,781	$67,859	$69,041

Schedule of Average Benefit Payments

Retirement Effective Dates	Years of Credited Service 5-10	10-15	15-20	20-25	25-30	30+	Fiscal Year Average/ New Retirants
Period 7/1/19 to 6/30/20*							
Average Monthly Pension Benefits	$ 1,330	$ 3,419	$ 3,639	$ 4,620	$ 5,394	$ 11,451	$ 4,976
Average Monthly DROP Payment	—	779	1,222	1,951	409	12,414	3,999
Average Final Average Salary	6,283	6,873	8,206	8,385	9,513	18,542	9,634
Number of New Retired Members	1	7	7	13	4	1	33
Period 7/1/18 to 6/30/19*							
Average Monthly Pension Benefits	$ 3,057	$ 3,519	$ 3,972	$ 5,317	$ 6,012	$ 7,064	$ 4,824
Average Monthly DROP Payment	205	—	858	3,765	4,303	6,515	3,860
Average Final Average Salary	5,052	9,006	8,182	9,428	9,754	11,499	8,820
Number of New Retired Members	3	4	7	8	7	1	30
Period 7/1/17 to 6/30/18*							
Average Monthly Pension Benefits	$ 2,603	$ 3,469	$ 4,020	$ 5,024	$ 4,923	$ 4,637	$ 4,113
Average Monthly DROP Payment	—	—	1,174	3,520	2,858	3,108	2,665
Average Final Average Salary	7,949	8,113	7,730	8,508	9,046	7,019	8,061
Number of New Retired Members	7	6	6	9	7	1	36
Period 7/1/16 to 6/30/17*							
Average Monthly Pension Benefits	$ 1,633	$ 3,211	$ 4,100	$ 5,027	$ 5,481	$ 5,909	$ 4,227
Average Monthly DROP Payment	—	—	2,305	2,560	4,372	4,266	3,376
Average Final Average Salary	6,049	7,648	8,067	8,565	9,524	10,141	8,332
Number of New Retired Members	3	4	5	11	10	1	34
Period 7/1/15 to 6/30/16*							
Average Monthly Pension Benefits	$ 612	$ 2,914	$ 3,448	$ 4,268	$ 4,922	$ 3,862	$ 3,338
Average Monthly DROP Payment	—	3,128	1,154	3,245	5,207	2,907	3,128
Average Final Average Salary	4,761	7,579	8,011	7,845	8,928	6,689	7,302
Number of New Retired Members	1	5	5	5	3	3	22
Period 7/1/14 to 6/30/15							
Average Monthly Pension Benefits	$ 3,735	$ 3,565	$ 3,846	$ 6,323	$ 8,405	$ 7,434	$ 5,551
Number of New Retired Members	1	4	6	10	10	3	34
Period 7/1/13 to 6/30/14							
Average Monthly Pension Benefits	$ 2,665	$ 2,540	$ 4,759	$ 7,181	$ 8,611	$ —	$ 5,151
Number of New Retired Members	4	2	6	7	6	0	25
Period 7/1/12 to 6/30/13							
Average Monthly Pension Benefits	$ 2,450	$ 3,973	$ 4,169	$ 7,226	$ —	$ 7,842	$ 5,132
Number of New Retired Members	3	8	6	6	0	3	26
Period 7/1/11 to 6/30/12							
Average Monthly Pension Benefits	$ 3,458	$ 3,265	$ 4,866	$ 4,484	$ 5,527	$ —	$ 4,320
Number of New Retired Members	5	2	4	3	4	—	18
Period 7/1/10 to 6/30/11							
Average Monthly Pension Benefits	$ 2,609	$ 3,040	$ 4,383	$ 5,493	$ 5,330	$ 5,519	$ 4,396
Number of New Retired Members	8	4	11	19	10	7	59

Data Source: PensionGold Administration System V3

*The Schedule of Average Benefit Payments includes information in accordance with GASB Statement No. 44 for the periods from July 1, 2015 through June 30, 2020. Since implementing PG3 - our new Pension Administration System commencing July 1, 2015, we are now able to capture information prospectively that is necessary for the System to comply with GASB 44 reporting. The System will provide 10 years in the format required by GASB 44 as information becomes available.

Retirees by Type of Benefit

As of June 30, 2020

Amount of Monthly Benefit	Number of Retirees	Type of Retirement*		
		1	2	3
$1 - $1,000	63	60	2	1
$1,001 - $2,000	83	62	6	15
$2,001 - $3,000	101	37	10	54
$3,001 - $4,000	188	29	89	70
$4,001 - $5,000	257	75	155	27
$5,001 - $6,000	106	47	47	12
$6,001 - $7,000	70	32	36	2
$7,001 - $8,000	75	40	34	1
$8,001 - $9,000	49	29	20	—
> $9,000	114	64	50	—
Total	1,106	475	449	182

*Type of Retirement
1 - Service Retiree
2 - Disability Retiree
3 - Beneficiary/Continuant/Survivor

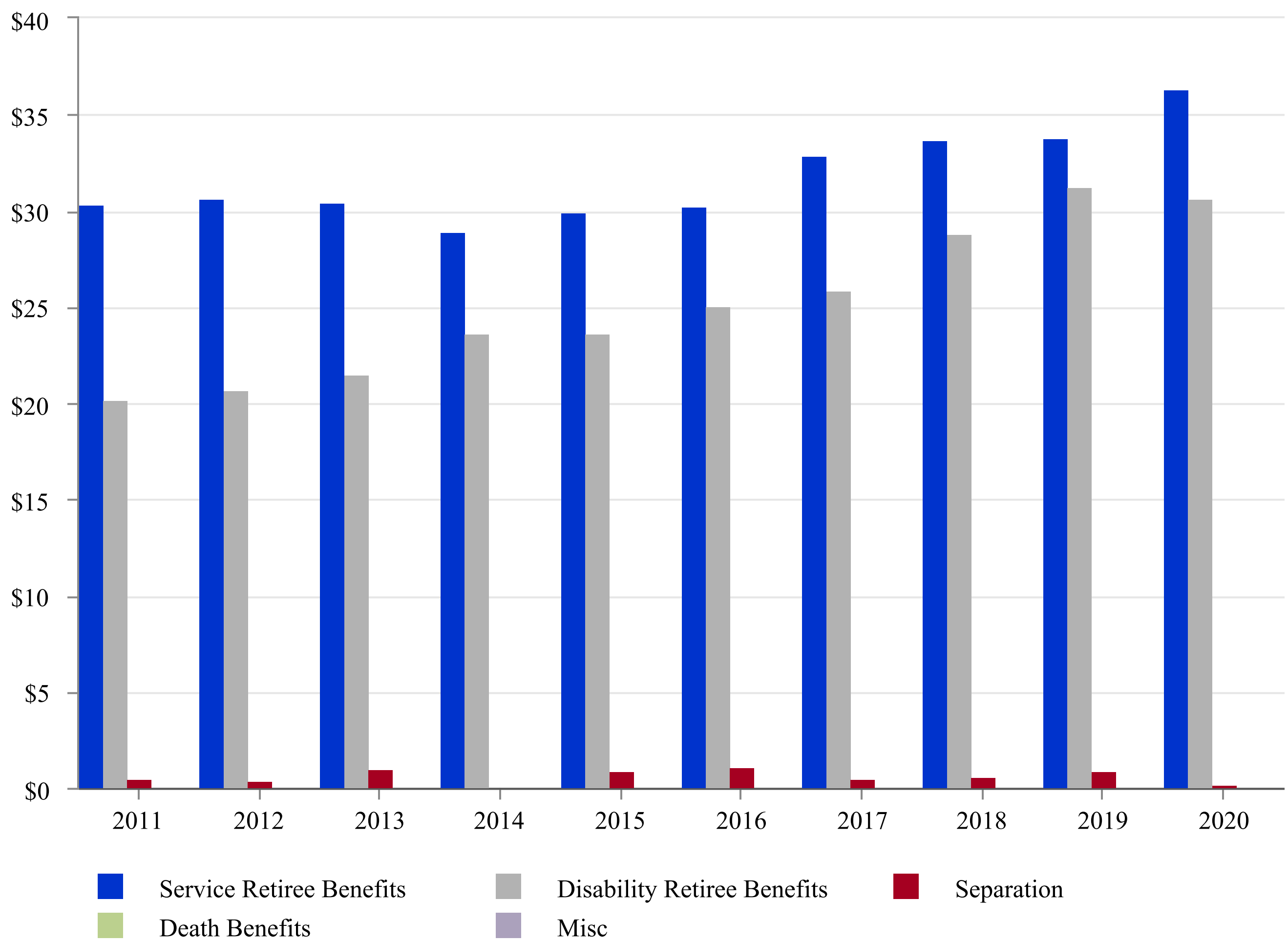
Amount of Monthly Benefit	Number of Retirees	Option Selected**			
		Unmodified	Option 1	Option 2	Option 3
$1 - $1,000	63	52	7	4	—
$1,001 - $2,000	83	61	13	6	3
$2,001 - $3,000	101	53	26	18	4
$3,001 - $4,000	188	115	35	24	14
$4,001 - $5,000	257	158	49	36	14
$5,001 - $6,000	106	69	14	17	6
$6,001 - $7,000	70	42	9	17	2
$7,001 - $8,000	75	34	14	24	3
$8,001 - $9,000	49	26	7	14	2
> $9,000	114	63	11	37	3
Total	1,106	673	185	197	51

**Option Selected
Unmodified - Beneficiary receives 50% of the member's allowance
Option 1 - Beneficiary receives lump sum of member's unused contributions
Option 2 - Beneficiary receives 100% of member's reduced monthly benefit
Option 3 - Beneficiary receives 75% of member's reduced monthly benefit

Schedule and Graph of Pension Benefit Payments
Deductions by Type

Last Ten Fiscal Years 2011 - 2020

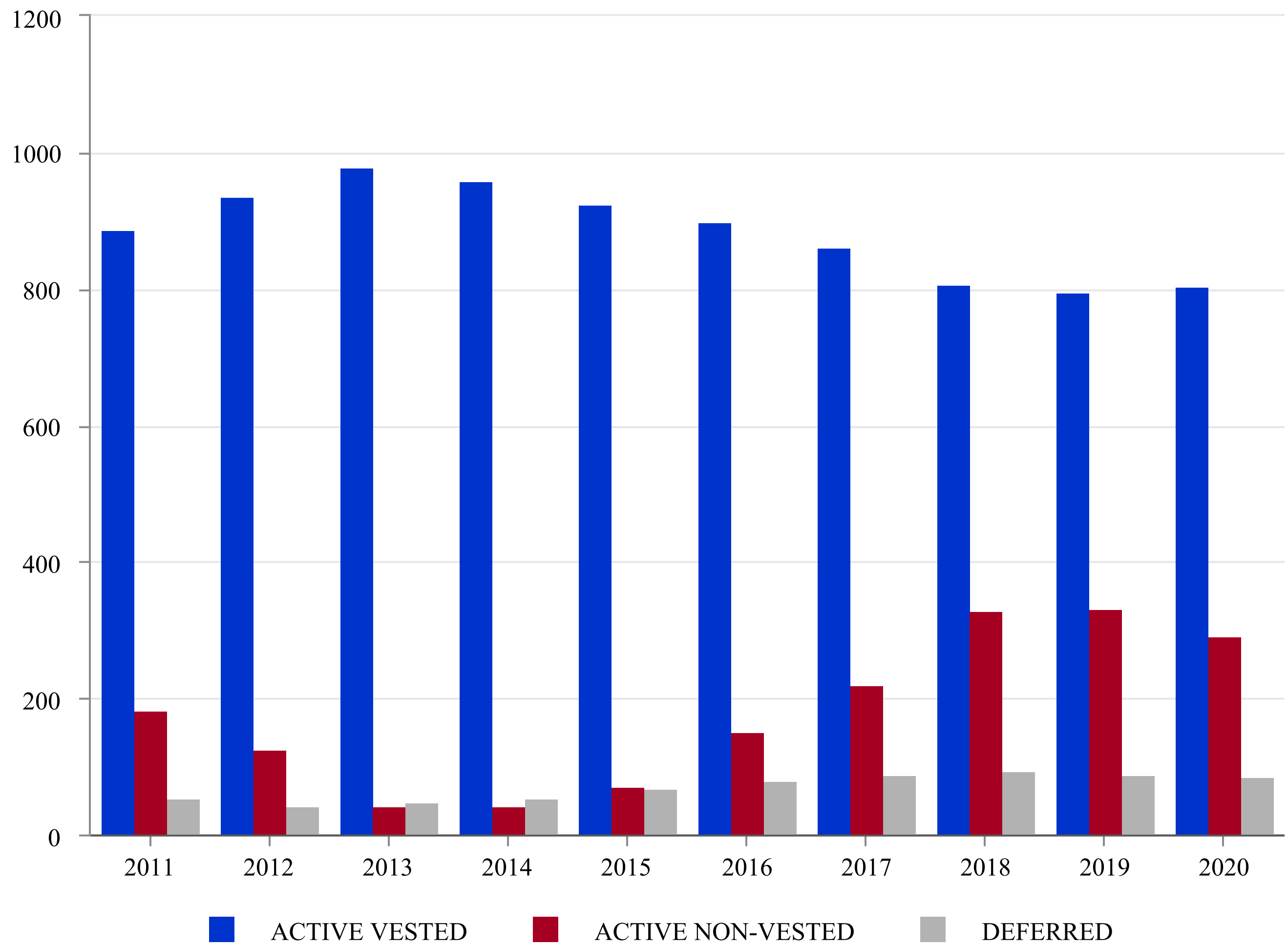
(Dollars in Millions)



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Service Retiree Benefits	$30.4	$30.7	$30.5	$28.9	$30.0	$30.3	$32.9	$33.7	$33.8	$36.3
Disability Retiree Benefits	20.2	20.7	21.5	23.7	23.7	25.1	25.9	28.8	31.3	30.7
Separation	0.5	0.4	1.0	0.1	0.9	1.1	0.5	0.6	0.9	0.2
Death Benefits	—	—	—	—	—	0.1	—	—	—	—
Misc	—	0.1	—	—	—	—	—	—	—	—
Total Benefit Deductions	$51.1	$51.9	$53.0	$52.7	$54.6	$56.6	$59.3	$63.1	$66.0	$67.2

Schedule and Graph of Active Vested, Active Non-Vested and Deferred Membership History

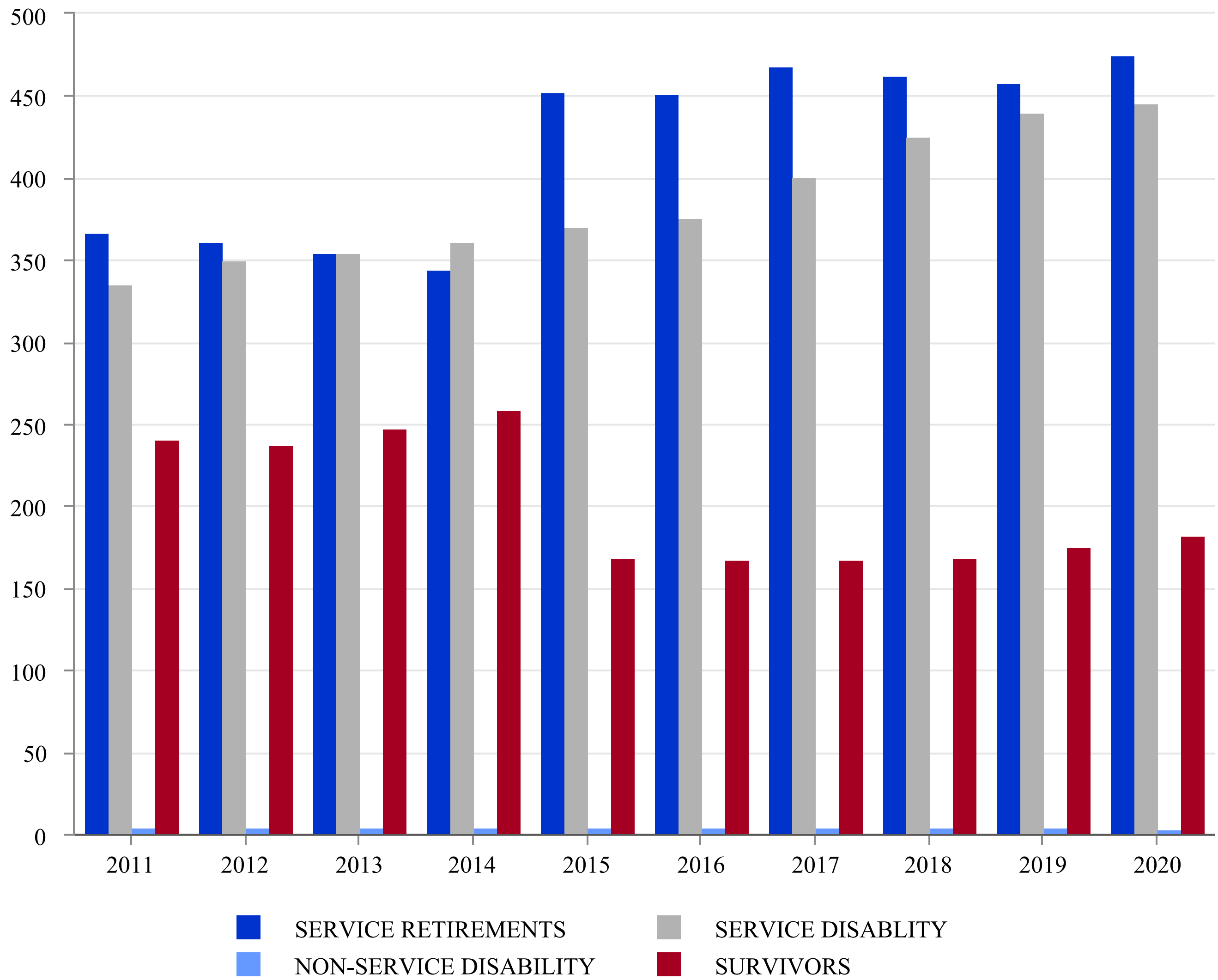
Last Ten Fiscal Years 2011 - 2020



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
ACTIVE VESTED	887	937	979	959	925	899	863	808	795	805
ACTIVE NON-VESTED	184	125	42	44	72	152	221	330	331	291
DEFERRED	53	44	49	55	68	81	90	94	88	85
TOTAL	1,124	1,106	1,070	1,058	1,065	1,132	1,174	1,232	1,214	1,181

Schedule and Graph of Retirees Pension Benefit Payments by Type of Benefit

Last Ten Fiscal Years 2011 - 2020



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
SERVICE RETIREMENTS	367	361	355	345	453	452	468	463	458	475
SERVICE DISABLITY	336	350	355	362	371	376	401	426	440	446
NON-SERVICE DISABILITY	4	4	4	5	5	5	5	4	5	3
SURVIVORS	241	238	248	259	169	168	168	169	176	182
TOTAL	948	953	962	971	998	1,001	1,042	1,062	1,079	1,106

Summary of Active Participants

YEAR	NUMBER OF MEMBERS	PENSIONABLE PAYROLL	ANNUAL AVERAGE SALARY	NET CHANGE IN AVERAGE SALARY
2020	1,096	$113,842,558	$103,871	6.52%
2019	1,126	$109,803,190	$97,516	6.77%
2018	1,138	$103,934,234	$91,331	1.68%
2017	1,084	$97,368,618	$89,823	1.48%
2016	1,051	$93,030,822	$88,516	(3.10)%
2015	997	$91,075,093	$91,349	(0.39)%
2014	1,003	$91,980,224	$91,705	(0.78)%
2013	1,021	$94,368,329	$92,427	2.04%
2012	1,062	$96,194,537	$90,579	0.26%
2011	1,071	$96,757,692	$90,343	3.40%

Summary of Retirees

YEAR	NUMBER OF RETIREES	ANNUAL BENEFITS TO PARTICIPANTS	ANNUAL AVERAGE ALLOWANCE (INDIVIDUAL)	NET CHANGE IN BENEFITS TO PARTICIPANTS
2020	1,106	$66,983,928	$60,564	0.36%
2019	1,079	$65,113,142	$60,346	2.52%
2018	1,062	$62,510,828	$58,861	4.40%
2017	1,042	$58,748,302	$56,380	1.86%
2016	1,001	$55,408,166	$55,353	2.85%
2015	998	$53,711,161	$53,819	(0.60%)
2014	971	$52,573,897	$54,144	0.14%
2013	962	$52,011,489	$54,066	0.28%
2012	953	$51,378,999	$53,913	1.10%
2011	948	$50,556,250	$53,329	(3.09%)

Member and City Contribution Rates

Last Ten Fiscal Years 2011 - 2020

TIER I							
As of June 30		Member Rates			City Contribution Rates		
		Basic at Entry Age			Total City	Less Prefunded Actuarial Accrued Liability	Net City Contribution
Fiscal Year	Valuation Date	20	30	40	Rate	(PAAL)	Rate
2020	2018	4.34%	7.84%	7.30%	23.53%	(3.94%)	19.59%
2019	2017	4.34%	7.84%	7.30%	23.44%	(4.72%)	18.72%
2018	2016	4.34%	7.84%	7.30%	28.38%	(9.46%)	18.92%
2017	2015	4.52%	7.75%	6.94%	29.59%	(10.57%)	19.02%
2016	2014	4.52%	7.75%	6.94%	26.88%	(6.74%)	20.14%
2015	2013	4.52%	7.75%	6.94%	27.80%	(6.97%)	20.83%
2014	2012	4.05%	7.10%	6.40%	25.95%	(5.76%)	20.19%
2013	2011	4.05%	7.10%	6.40%	26.22%	(6.38%)	19.84%
2012	2010	4.05%	7.10%	6.40%	26.57%	(2.63%)	23.94%
2011	2009	3.76%	6.65%	5.94%	26.43%	(6.58%)	19.85%

TIER II							
As of June 30		Member Rates			City Contribution Rates		
		Basic at Entry Age			Total City	Less Prefunded Actuarial Accrued Liability	Net City Contribution
Fiscal Year	Valuation Date	20	30	40	Rate	(PAAL)	Rate
2020	2018	9.00%	9.00%	9.00%	23.53%	(3.94%)	19.59%
2019	2017	9.00%	9.00%	9.00%	23.44%	(4.72%)	18.72%
2018	2016	9.00%	9.00%	9.00%	23.15%	(4.23%)	18.92%
2017	2015	9.00%	9.00%	9.00%	22.24%	(3.22%)	19.02%
2016	2014	9.00%	9.00%	9.00%	22.07%	(1.93%)	20.14%
2015	2013	9.00%	9.00%	9.00%	22.09%	(1.26%)	20.83%
2014	2012	9.00%	9.00%	9.00%	18.91%	(1.28%)	17.63%
2013	2011	9.00%	9.00%	9.00%	19.56%	(0.28%)	19.28%
2012	2010	9.00%	9.00%	9.00%	19.77%	(4.17%)	15.60%
2011	2009	9.00%	9.00%	9.00%	18.60%	(1.25%)	17.35%

Data Source: Annual Actuarial Valuation Reports

Economic Assumptions and Funding Method

Last Ten Fiscal Years 2011 - 2020

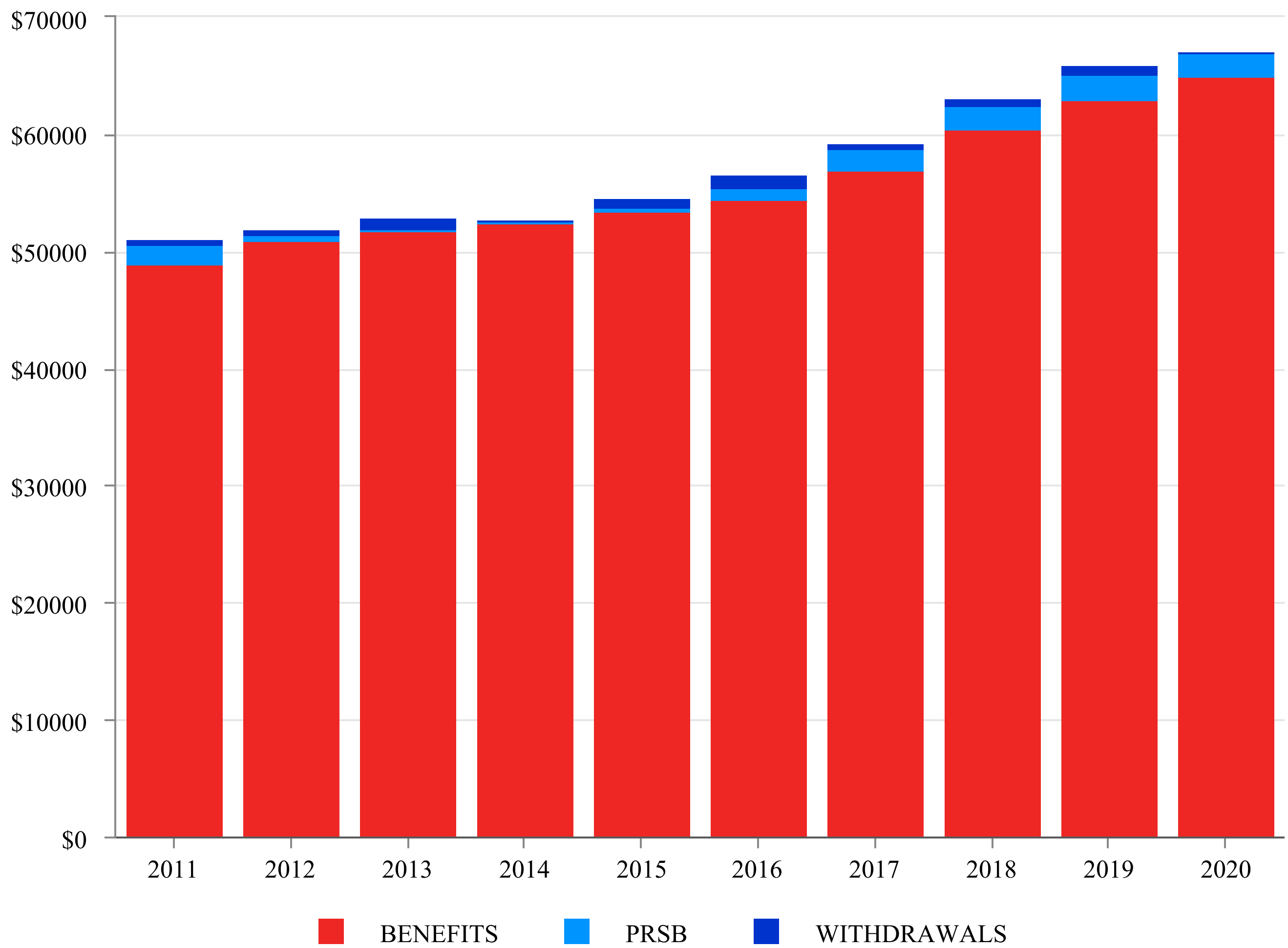
Valuation Date June 30	Interest	Salary Scale	Cost-of-Living Adjustment (COLA)	Inflation Component	Funding Method
2020	7.00%	5.25% Avg	2.75 - 3.25%	2.75%	Entry Age Normal
2019	7.00%	5.25% Avg	2.75 - 3.25%	2.75%	Entry Age Normal
2018	7.25%	5.5% Avg	3.00 - 3.50%	3.00%	Entry Age Normal
2017	7.25%	5.5% Avg	3.00 - 3.50%	3.00%	Entry Age Normal
2016	7.25%	5.5% Avg	3.00 - 3.75%	3.00%	Entry Age Normal
2015	7.50%	5.5% Avg	3.00 - 3.75%	3.25%	Entry Age Normal
2014	7.50%	5.5% Avg	3.00 - 3.75%	3.25%	Entry Age Normal
2013	7.50%	5.5% Avg	3.00 - 3.75%	3.25%	Entry Age Normal
2012	8.00%	5.5% Avg	3.00 - 4.00%	3.50%	Entry Age Normal
2011	8.00%	5.5% Avg	3.00 - 4.00%	3.50%	Entry Age Normal

Source: The Segal Company June 30, 2020, Actuarial Valuation Report

Benefits and Withdrawals Paid

Last Ten Fiscal Years 2011 - 2020

(In Thousands)

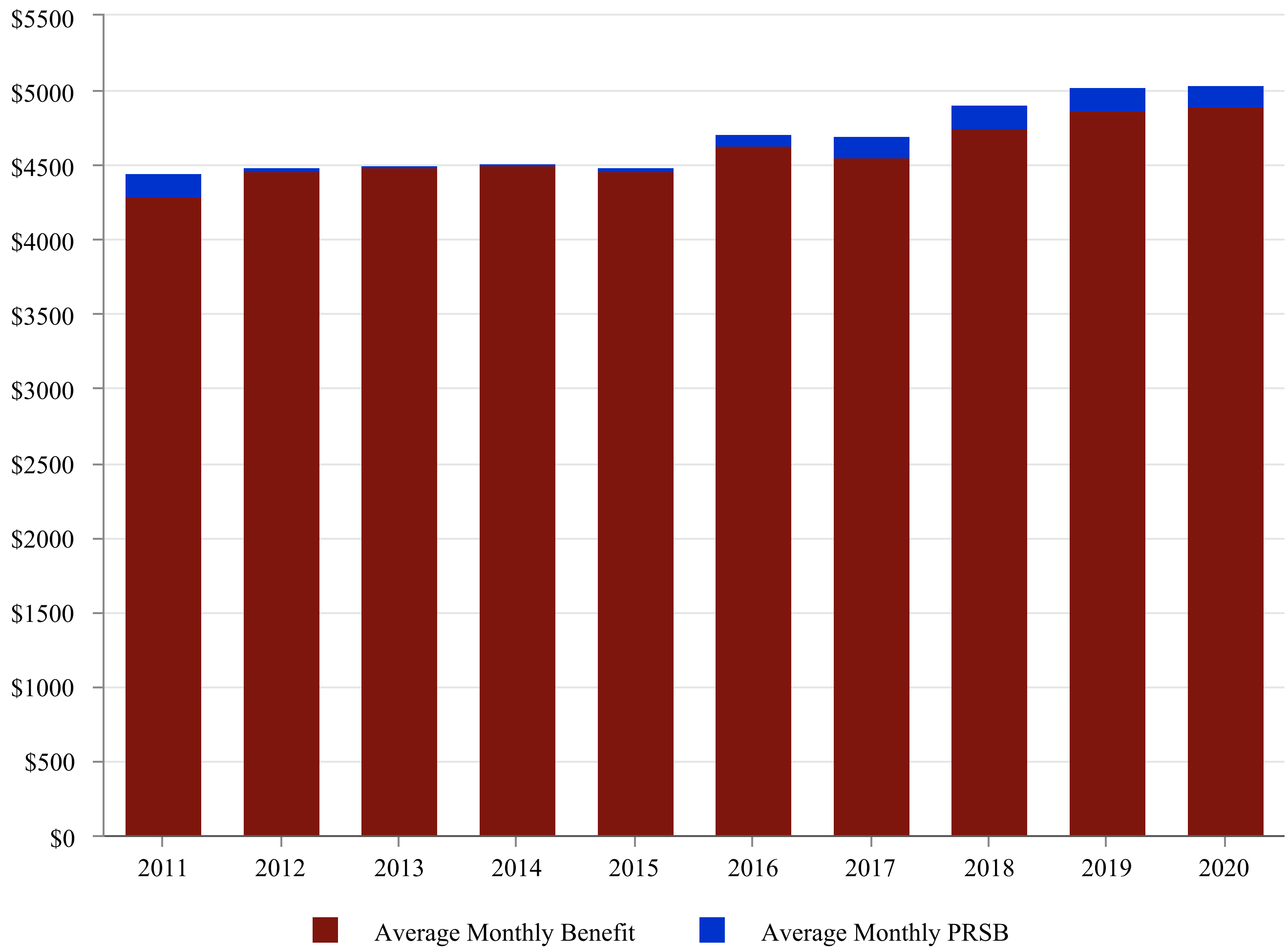


	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
BENEFITS	$48,894	$51,006	$51,827	$52,513	$53,471	$54,428	$57,029	$60,492	$62,991	$65,020
PRSB	1,662	373	185	61	241	980	1,719	2,019	2,122	1,964
WITHDRAWALS	494	535	970	146	901	1,173	525	560	849	218

Average Monthly Benefits to Retirees

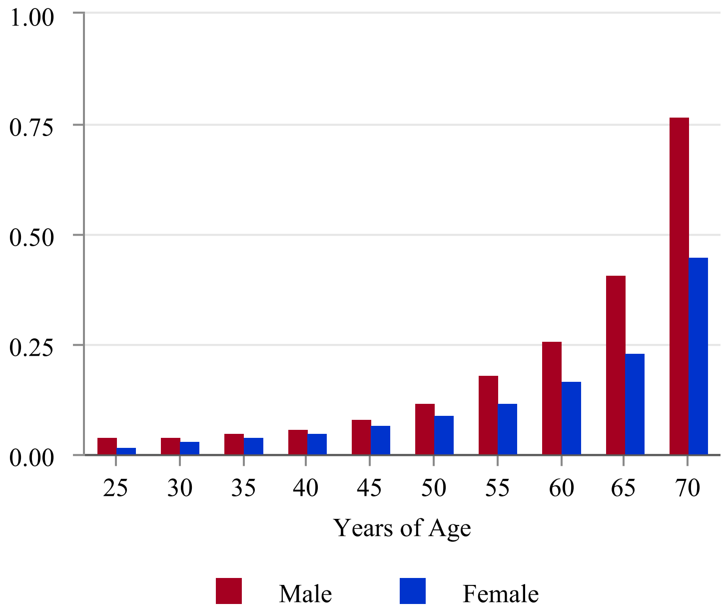
Last Ten Fiscal Years 2011 - 2020

(In Thousands)



Average Monthly	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Benefit	$4,298	$4,460	$4,490	$4,507	$4,465	$4,629	$4,560	$4,746	$4,864	$4,899
PRSB	146	33	16	5	20	82	137	158	163	148
Average Monthly Benefit Total	$4,444	$4,493	$4,506	$4,512	$4,485	$4,711	$4,697	$4,904	$5,027	$5,047

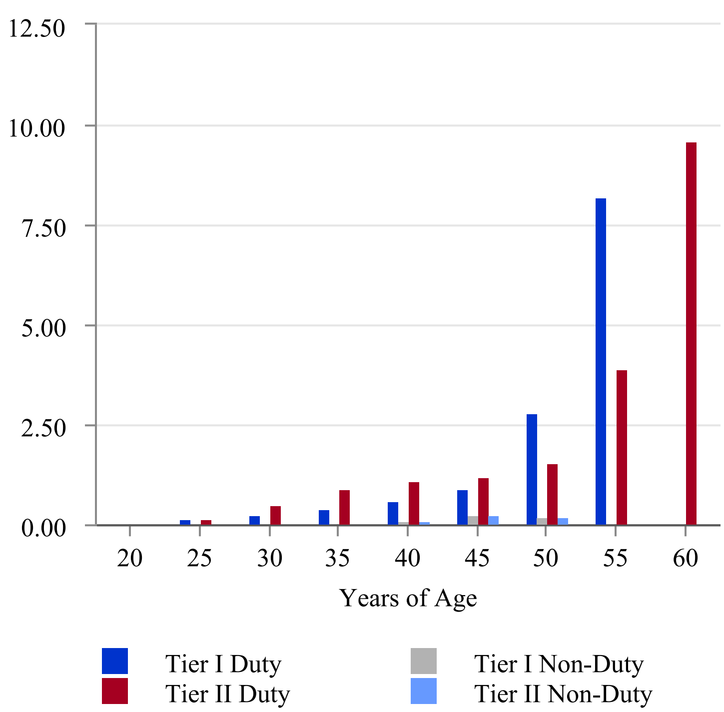
EXPECTATION OF LIFE
(Age and Service Retirees)



Separation Rate Before Retirement Due to Death* Rate %		
	Tier I & II	
Age	Male	Female
25	0.04	0.02
30	0.04	0.03
35	0.05	0.04
40	0.06	0.05
45	0.08	0.07
50	0.12	0.09
55	0.18	0.12
60	0.26	0.17
65	0.41	0.23
70	0.77	0.45

*All pre-retirement deaths are presumed to be duty

EXPECTATION OF LIFE
(Disabled Retirees)



Separation Rates Prior to Retirement Due to Disability Rate %				
Age	Tier I Duty	Tier I Non-Duty	Tier II Duty	Tier II Non-Duty
20	0.02	0.00	0.06	0.00
25	0.14	0.01	0.16	0.01
30	0.26	0.01	0.50	0.01
35	0.39	0.03	0.88	0.03
40	0.60	0.12	1.12	0.12
45	0.88	0.25	1.20	0.25
50	2.80	0.20	1.56	0.20
55	8.20	0.00	3.90	0.00
60	0.00	0.00	9.62	0.00

To attract, develop and retain competent and professional staff.

To achieve and maintain superior investment performance on a risk controlled basis measured by the Public Fund Universe.

COMPLIANCE

Independent Auditor's Internal Control Letter

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BROWN ARMSTRONG

Certified Public Accountants

INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS*

To the Board of Retirement
City of Fresno Fire and Police Retirement System
Fresno, California

We have audited, in accordance with the 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, the financial statements of the City of Fresno Fire and Police Retirement System (the System), as of and for the fiscal year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise the System's basic financial statements, and have issued our report thereon dated November 30, 2020.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the System's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we do not express an opinion on the effectiveness of the System's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the System's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Independent Auditor's Internal Control Letter Continued

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the System's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the System's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

BROWN ARMSTRONG
ACCOUNTANCY CORPORATION

Brown Armstrong
Accountancy Corporation

Bakersfield, California
November 30, 2020