ANNUAL REPORT

For Fiscal Year Ended

June 30, 2021

100th Anniversary Report ~ 1921-2021

SFERS

San Francisco Employees' Retirement System

TABLE OF CONTENTS

INTRODUCTORY SECTION

FINANCIAL SECTION

INVESTMENT SECTION

ACTUARIAL SECTION

STATISTICAL SECTION

INTRODUCTORY SECTION

LETTER OF TRANSMITTAL

April 14, 2022

San Francisco Employees' Retirement System
1145 Market Street, 5th Floor
San Francisco, CA 94103

On behalf of the Retirement Board and Retirement System staff, we are pleased to present the San Francisco Employees' Retirement System Annual Report for Fiscal Year 2020-21.

ABOUT SFERS

THE RETIREMENT SYSTEM

Initially established by approval of City voters on November 2, 1920 and the California State Legislature on January 12, 1921, the San Francisco Employees' Retirement System ("Retirement System" or "SFERS") is deeply rooted in the history and culture of the City and County of San Francisco and is committed to serving the retirement needs of its members. Originally established as a fund to assist families and orphans of firefighters and police, today the Retirement System serves more than 74,000 active, vested and retired employees of the City and County of San Francisco and their survivors.

Under the direction of the Executive Director, the System's management team administers two employee benefit programs for eligible City and County employees:

- City and County of San Francisco Employees' Retirement System pension plan, a defined benefit plan.
- San Francisco Deferred Compensation Plan, an IRC §457(b) deferred compensation plan.

Specific San Francisco City Charter sections and/or Administrative Code provisions mandate each of these benefit plans.

OUR MISSION

The San Francisco City and County Employees' Retirement System is dedicated to securing, protecting and prudently investing the pension trust assets, administering mandated benefit programs, and providing promised benefits to the active and retired members of the City and County of San Francisco.

THE PENSION PLAN

The SFERS Pension Plan is a tax-qualified defined benefit plan that provides for the following benefits upon separation: service and disability retirement, refund or vesting allowance, and pre and post-retirement death benefits to beneficiaries. Defined benefit plans are funded through employee and employer contributions and investment earnings.

SFERS has a reciprocity agreement with CalPERS, California county retirement systems covered by the 1937 Act Retirement Law, and certain other local, independent retirement systems that have a reciprocity contract with CalPERS (listed on the CalPERS website).

As of June 30, 2021, the Fund was valued at $34.6 billion returning an unprecedented 33.70% for the fiscal year, and significantly outperforming our peers' median return of 26.97%. SFERS annual benefit payments totaled $1.62 billion paid to over 30,800 retirees and their beneficiaries.

THE SAN FRANCISCO 457(B) DEFERRED COMPENSATION PLAN

The San Francisco Deferred Compensation Plan (SFDCP), a voluntary IRC §457(b) plan, was adopted in 1976, and allows eligible City employees to elect to voluntarily defer receipt and taxation of a portion of their regular earnings until after they retire or separate from service. The SFDCP also offers a Roth after-tax contribution option. These options offer eligible employees an opportunity to complement pension income during retirement.

OUR MEMBERS

During the fiscal year, SFERS enrolled 3,308 new members and added 1,232 new retirees.

SFERS members include eligible employees of the City and County of San Francisco, the San Francisco Unified School District, the San Francisco Community College District, and the San Francisco Trial Courts. Uniformed employees working for the City's Police and Fire Departments are covered by the SFERS Safety Plans. Eligible civilian (non-Safety) employees of the City are covered by the SFERS Miscellaneous Plan.

Sheriff, Undersheriff, and deputized personnel of the Sheriff's Department hired after January 7, 2012 are covered by the SFERS Sheriff's Plan. Probation Officers, District Attorney Investigators and Juvenile Court Counselors hired after January 7, 2012 are covered by the SFERS Miscellaneous Safety Plan.

SFERS ADMINISTRATION

The Executive Director leads a team of senior managers who oversee each of the functional areas in the department. The leadership team manages the day-to-day activities of the System including:

- Member services, communication and benefits administration
- Retirement Board administration, including preparation of meeting materials, minutes and public notice requirements for Board and committee meetings
- Responding to Public Records Requests in accordance with the City's Sunshine Act, State of California Public Records Act, and Federal Freedom of Information Act
- Accounting and financial reporting
- Actuarial services
- Investment activities
- Quality assurance
- Recruitment and personnel management
- Records management and systems administration

THE RETIREMENT BOARD

The Retirement System and its members benefit greatly from the leadership of an experienced and knowledgeable Retirement Board. Within the scope of its fiduciary duties, the Board establishes and follows policies governing the administration, management, and operation of the City's retirement plans; manages the investment of the Retirement System's assets; approves disability benefit determinations; and approves actuarial assumptions used to fund long-term benefit promises of the SFERS Pension Plan.

The Retirement Board generally meets once each month to review and to approve important elements of Retirement System business. The Retirement Board is composed of seven members: three members elected by the active and retired members of SFERS; three members appointed by the Mayor in accordance with §12.100, the San Francisco City Charter; and one member of the Board of Supervisors appointed by the President of the Board of Supervisors.

FINANCE AND FUNDING

FINANCIAL REPORTING

The accounting policies followed in preparing the SFERS financial statements by the City's auditors Marcias, Gini & O'Connell, LLP, conform to standards prescribed by the Governmental Accounting Standards Board (GASB). The audited Statements of Fiduciary Net Position and Statements of Changes in Fiduciary Net Position provide a general overview of the City and County of San Francisco Employees' Retirement System's finances for the fiscal year ended June 30, 2021.

Financial highlights and analysis can be found in the SFERS Discussion and Analysis preceding the financial statements. This transmittal letter, when taken into consideration with the Financial Section of this report, provides an enhanced picture of the activities of the organization.

Readers who have questions regarding the financial information provided in this report are encouraged to visit the SFERS website at www.mysfers.org to view the full set of audited Financial Statements and Required Supplemental Information as prepared by the City's independent auditors, Macias Gini & O'Connell, LLP.

ACTUARIAL SERVICES AND FUNDING

The Retirement Board contracts with a consulting actuarial firm to produce and report to the Retirement Board and Retirement System staff, actuarial information related to the benefit structure and funding status of the Retirement System. The Retirement Board's current consulting actuarial firm is Cheiron, Inc. The Retirement Board also employs an Actuarial Services Coordinator to coordinate the work of the consulting actuary, participate in the presentation of actuarial reports to the Retirement Board, and provide other in-house actuarial services.

The consulting actuarial firm conducts annual actuarial valuations of the Retirement System's assets and liabilities in order to assess its funded status and to determine the appropriate level of employer contributions to the Fund. Each year, the Retirement Board looks to the consulting actuary and staff Actuarial Services Coordinator to recommend appropriate actuarial assumptions to provide the required funding for the promised benefits. The recommendations are based on results from economic experience analyses conducted each year, as well as demographic experience analyses conducted approximately every five years. The actuarial assumptions are included in the Actuarial Section of this report.

Sponsoring employers of the Retirement System are required to contribute 100% of the actuarially determined contribution approved by the Retirement Board. A 10-year chart of employer contributions may be found in the Required Supplementary Information found in the Financial Section.

The consulting actuarial firm also calculates the total pension liability and net pension liability as required by GASB Statement No. 67. At the June 30, 2021 fiscal year-end measurement date, the fiduciary net position as a percentage of total pension liability is 107.8% based on total pension liability of $33.1 billion and fiduciary net position of $35.7 billion. The net pension liability at June 30, 2021 is $(2.6) billion. Details may be found in Note 10 of the Notes to the Basic Financial Statements and also in the Required Supplementary Information.

INVESTMENTS

The Retirement System's investment objective is to maximize long-term rates of return on investments within prudent guidelines.

SFERS' Investment Staff plays a significant role in the management and oversight of the Trust's investment portfolio and is responsible for the timely implementation and administration of the Retirement Board's policy decisions. For Fiscal Year 2021, the investment portfolio of the San Francisco Employees Retirement System generated a return of 33.7%, the highest fiscal year return in the Trust's history.

ACKNOWLEDGEMENTS

For the past 100 years, the Retirement System has offered a financial safety net to its members. Today, SFERS offers an opportunity for financial security in retirement to tens of thousands of active and retired employees of the City and County of San Francisco and their survivors. And proudly, in the same year we commemorate our 100th anniversary, we mark a funded status above 100%, for the first time since the great recession.

We extend our sincerest gratitude to the Retirement Board for its expert leadership now and over the years, and to our consultants for their professional guidance. To our valued members, know that SFERS maintains its strongest position in decades, and we are confident in our ability to meet benefit obligations now and into the future.

And to the SFERS staff, we cannot express enough, our deepest thanks for their continued dedication, exemplary service to our members during these particularly challenging times, and for delivering extraordinary growth resulting in SFERS' fully funded status in more than a decade. We could not have realized this record success without you.

Respectfully submitted,

Jay P. Huish
Executive Director

Leona M. Bridges
President

THE RETIREMENT SYSTEM ORGANIZATION FOR FISCAL YEAR 2021

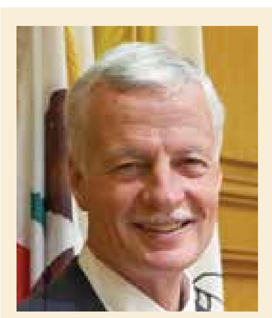
THE SFERS RETIREMENT BOARD

PRESIDENT
Leona M. Bridges
Former Managing Director
Barclays Global Investors
Appointed Member
Term Expires: 02/20/2023

VICE PRESIDENT
Croce Alexander ("Al") Casciato
Retiree
Elected Member
Term Expires: 02/20/2022

Carmen Chu
Assessor
City and County of San Francisco
Appointed Member
Term Expired: 01/31/2021

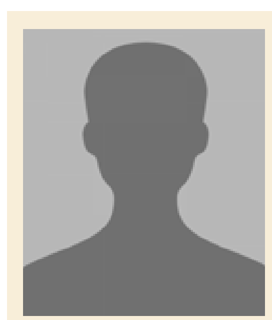
Scott Heldfond
Director, Aon Risk Services
Appointed Member
Term Expires: 02/20/2024



Joseph D. Driscoll, CFA
Captain, San Francisco Fire Department
Elected Member
Term Expires: 02/20/2026

Ahsha Safai
Member, Board of Supervisors
Ex-Officio Member
Term Expires: 01/31/2023

Shruti Gandhi
Founder & Managing Partner
Array Ventures
Appointed Member
(appointed 05/11/2021)
Term Expires: 02/20/2023



Brian Stansbury
Active Member
City and County of San Francisco
Elected Member
Term Expires: 02/20/2025

SFERS LEADERSHIP TEAM

Jay P. Huish
Executive Director

Caryn Bortnick
Deputy Executive Director

William J. Coaker, Jr., CFA
Chief Investment Officer

Darlene Armanino
Commission Secretary

Janet Brazelton, FSA, EA
Actuarial Services Coordinator

Kurt Braitberg
Managing Director, Public Markets

Derwin Brown
Quality Assurance Manager

Jim Burruel
Finance Manager

Diane Chui Justen
Deferred Compensation Director

David Francl
Managing Director, Absolute Return

Alison Johnson
Communications Manager

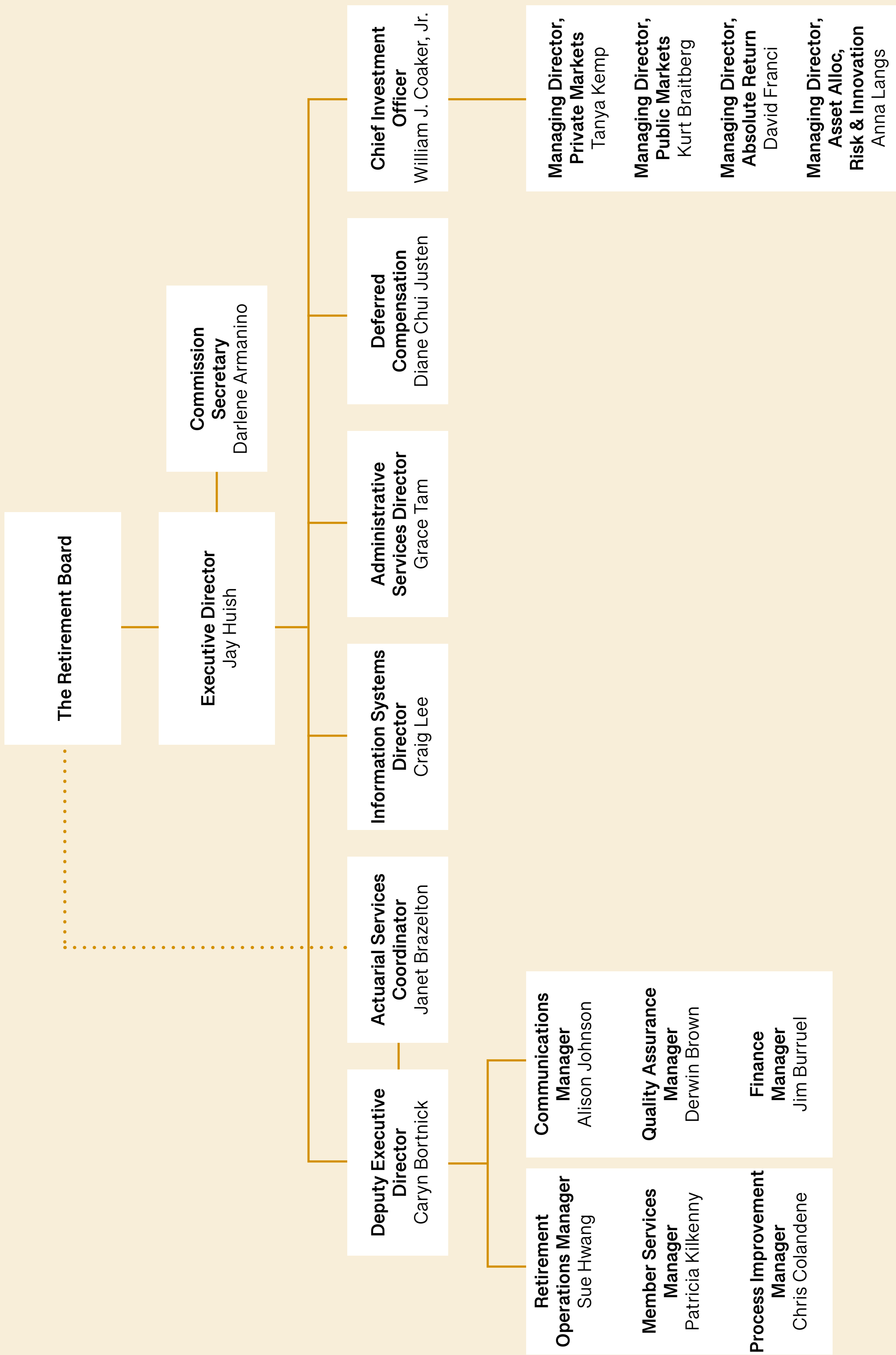
Tanya Kemp
Managing Director, Private Markets

Anna Langs
Managing Director, Asset Allocation,
Risk Management and Innovative Solutions

Craig Lee
Information Systems Director

Grace Tam
Administrative Services Director

SFERS ORGANIZATIONAL CHART - JUNE 30, 2021



PROFESSIONAL CONSULTANTS

Consulting Actuary

- Cheiron, Inc.

Investment Consultants

- NEPC, LLC
- Callan Associates, Inc.
- Cambridge Associates, LLC
- Aksia LLC

Governance Consultants

- Glass Lewis & Co.
- Nossaman, LLP

FINANCIAL SECTION

SFERS DISCUSSION AND ANALYSIS

The management of the City and County of San Francisco Employees' Retirement System is pleased to provide this overview and analysis of the financial activities of its cost-sharing multiple-employer defined benefit pension plan (the "Plan") for the fiscal year ended June 30, 2021. We encourage readers to consider the information presented here in conjunction with the Basic Financial Statements and Required Supplementary Information which follow this discussion.

FINANCIAL HIGHLIGHTS OF FISCAL YEAR 2021

- At the close of the year ended June 30, 2021, the Plan held $35.7 billion of net position restricted for pension benefits. All of the fiduciary net position is available to meet the Retirement System's ongoing obligations to plan participants and their beneficiaries.
- The Retirement System's funding objective is to meet long term benefit obligations through contributions and investment income. The Retirement System's fiduciary net position as a percentage of the total pension liability should be considered when evaluating the Retirement System's financial health. Based on the June 30, 2021, measurement date, the fiduciary net position was 107.8% of the total pension liability.
- For the year ended June 30, 2021, the Retirement System's net investment income of $9,447.7 million represents 35.5% of fiduciary net position as of the beginning of the fiscal year.
- Total fiduciary net position held in trust for pension benefits increased by $9,053.6 million, or 34.0%, primarily as a result of positive investment returns, which were reduced by the net difference between contributions to the Plan and benefits, refunds, and administrative expenses incurred by the Plan.
- Members' contributions to the Plan totaled $409.4 million, an increase of $8.7 million or 2.2% from the prior year, primarily as a result of a 1.6% increase in covered payroll. Employee contribution rates in fiscal year 2020-21 ranged from 7.5% - 13.0%, same as in fiscal year 2019-20.
- In order to maintain the fiscal soundness of the Plan, required employer contributions to the Plan totaled $836.6 million, an increase of $93.6 million or 12.6% from the prior year, partly due to the 1.6% increase in covered payroll and partly due to increased employer contribution rates. Employer contribution rates ranged from 22.40% to 26.90% in fiscal year 2020-21 and 20.69% to 25.19% in fiscal year 2019-20.
- Total deductions from the Plan were $1,640.0 million, an increase of 4.6% from the prior year due to an increase in benefits paid during the current fiscal year, as a result of an increase in the number of payees, higher average retirement benefits and an increase in the cost of living (COLA) adjustments.

OVERVIEW OF FINANCIAL STATEMENTS

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

1. ***Statements of Fiduciary Net Position*** are snapshots of account balances as of the close of the years – June 30, 2021 and 2020. They indicate the total assets, deferred outflows of resources, total liabilities, deferred inflows of resources, and the net position restricted for future payment of retirement benefits and operating expenses as of June 30, 2021 and 2020.

2. ***Statements of Changes in Fiduciary Net Position*** provide a view of additions to and deductions from the Plan during the years ended June 30, 2021 and 2020.
3. ***Notes to Financial Statements*** provide additional information that is essential to a full understanding of the data provided in the financial statements.

The statements of fiduciary net position and the statements of changes in fiduciary net position report information about the Retirement System's financial activities, prepared using the accrual basis of accounting. Contributions to the Plan are recognized when due pursuant to legal requirements and benefits and refunds are recognized when currently due and payable in accordance with the terms of the Plan.

Investments are reported at fair value. Securities traded on a national or international exchanges are valued at the last reported sales price at current exchange rates. Securities that do not have an established market are reported at estimated fair value derived from third party pricing services. Purchases and sales of investments are recorded on a trade date basis. The fair values of the Retirement System's partnership interests, which include private equity, real assets, private credit, absolute return, and some public equity investments, are based on net asset values provided by the general partners and investment managers.

Investments in forward currency contract investments are commitments to purchase and sell stated amounts of foreign currency. Changes in fair value of open contracts are immediately recognized as gains or losses. The fair value of forward currency contracts is determined by quoted currency prices from national exchanges.

Additional information on the Retirement System's investments can be found in Notes 4, 5, 6 and 7 of this report.

FINANCIAL ANALYSIS

The Plan's net position may serve over time as a useful indication of the Plan's financial position. The assets and deferred outflows of resources of the Plan exceeded its liabilities and deferred inflows of resources at June 30, 2021 and 2020. All of the Plan's fiduciary net position is restricted to meet the Retirement System's ongoing obligation to Plan participants and their beneficiaries.

The Plan's fiduciary net position as of June 30, 2021, 2020, and 2019 are represented in the table below:
(Dollars in thousands)

	2021	2020	2019
Other assets	$ 330,508	$ 539,779	$ 245,668
Investments at fair value	36,210,381	26,704,727	26,021,469
Total assets	36,540,889	27,244,506	26,267,137
Deferred outflows of resources	2,255	1,587	1,027
Total assets and deferred outflows of resources	36,543,144	27,246,093	26,268,164
Total liabilities	867,338	624,636	188,422
Deferred inflows of resources	1,972	1,239	1,093
Total liabilities and deferred inflows of resources	869,310	625,875	189,515
Fiduciary Net position	$ 35,673,834	$ 26,620,218	$ 26,078,649

As of June 30, 2021, the Plan's total fiduciary net position held in trust for pension benefits increased by $9,053.6 million or 34.0% for the year, primarily due to positive investment returns. Payables to brokers increased by $6.1 million and payables to borrowers of securities increased by $223.5 million due to the timing of investments and lending activities.

The Retirement Board believes that the Plan remains in a strong financial position to meet its obligations to the Plan members and beneficiaries. The U.S. economic recovery took hold in the year ended June 30, 2021, a result of re-opening measures enacted in the wake of the COVID-19 pandemic, along with optimism surrounding the vaccine rollout to combat the virus. Global governments supported their economies through continued fiscal stimulus measures, including the $1.9 trillion American Rescue Plan passed in March 2021. The Federal Reserve remained accommodative, leaving the Federal Funds Rate in a targeted range of 0.00% to 0.25%, and continued its quantitative easing program. Similar actions were taken by central banks globally. These stimulus measures, along with the vaccine rollout for COVID-19 and easing of lockdown restrictions, provided strong tailwinds for risk assets during the fiscal year. U.S. stocks posted their twelfth consecutive year of positive returns and outperformed international equities, returning a robust 40.8% as measured by the S&P 500 Index. International developed-markets equities (+32.3% for the year) performed well but lagged domestic equities significantly. Emerging markets equities returned 40.9%, outperforming both U.S. equities and international-developed markets equities. U.S. equity outperformance was driven in large part by economically sensitive sectors like Financials, Industrials, and Energy, which were expected to benefit from re-opening measures. Reflecting a steepening yield curve over the year, U.S. high quality fixed income returns were modestly negative, returning -0.3% in the fiscal year as measured by the Bloomberg U.S. Aggregate Bond Index.

As fiduciaries to the Plan members and beneficiaries, the Retirement Board, Retirement System staff, and our investment consultants continuously monitor the Plan's investment strategies, which comply with a "prudent expert" standard, to secure and maintain the sustainability of the Plan.

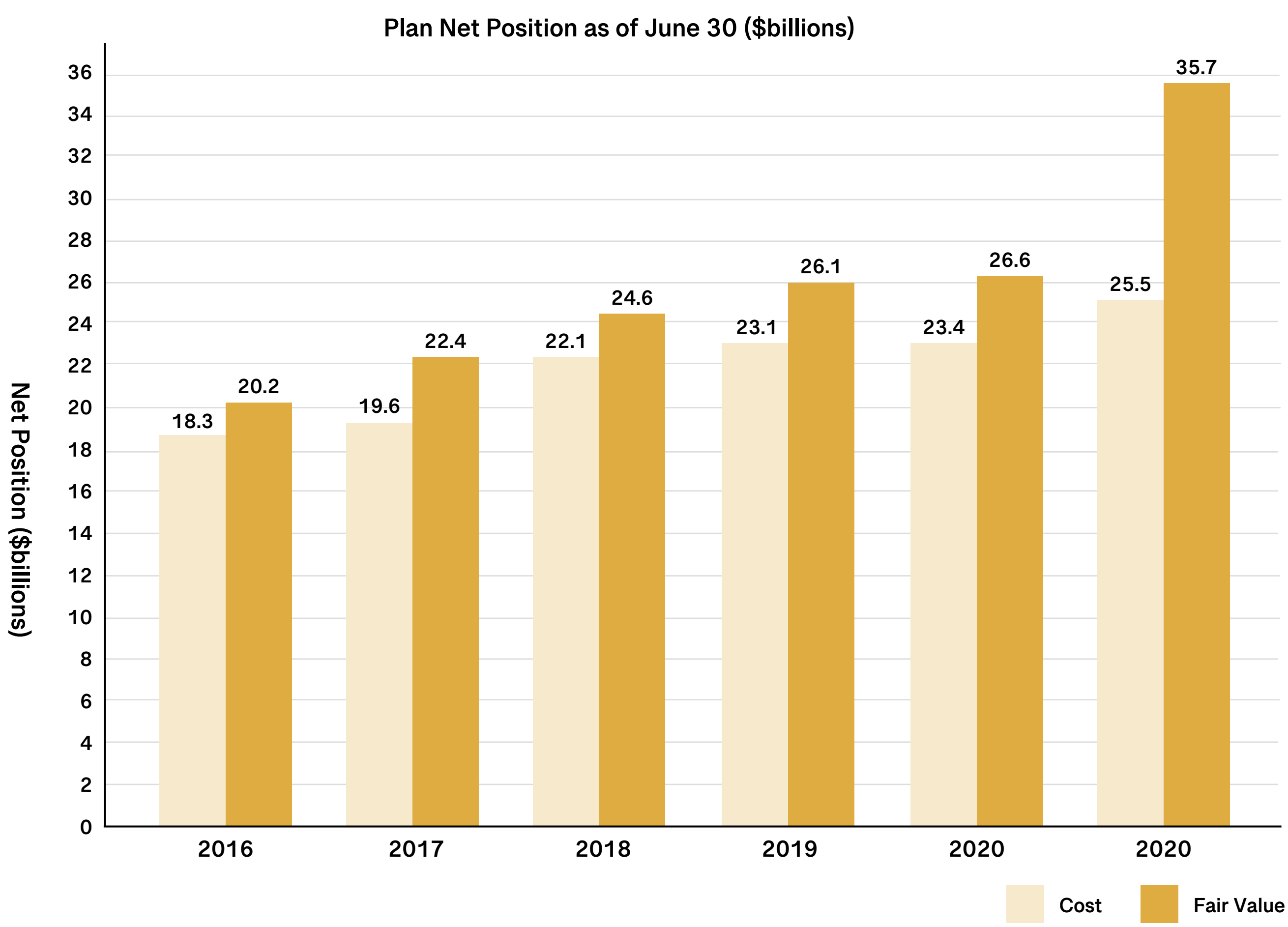
Highlights of Changes in Fiduciary Net Position – Years ended June 30, 2021, 2020, and 2019
(Dollars in thousands)

	2021	2020	2019
Additions:			
Member contributions	$ 409,398	$ 400,649	$ 380,980
Employer contributions	836,559	742,985	645,056
Interest	50,520	80,729	95,100
Dividends	84,514	108,344	203,047
Net appreciation (depreciation) in fair value of investments	9,372,334	822,342	1,720,605
Securities lending income	4,059	1,313	-
Investment expenses	(62,331)	(46,671)	(48,440)
Securities lending borrower rebates and expenses	(1,427)	225	-
Total additions	$ 10,693,626	$ 2,109,916	$ 2,996,348
Deductions:			
Benefits	1,599,507	1,531,041	1,438,935
Refunds of contributions	20,254	17,036	17,747
Administrative expenses	20,995	19,670	18,204
Other administrative expenses - OPEB	(746)	600	779
Total deductions	$ 1,640,010	$ 1,568,347	$ 1,475,665
Change in fiduciary net position	9,053,616	541,569	1,520,683
Fiduciary net position – restricted for pension benefits:			
Beginning of year	26,620,218	26,078,649	24,557,966
End of the year	$ 35,673,834	$ 26,620,218	$ 26,078,649

FISCAL YEAR 2021

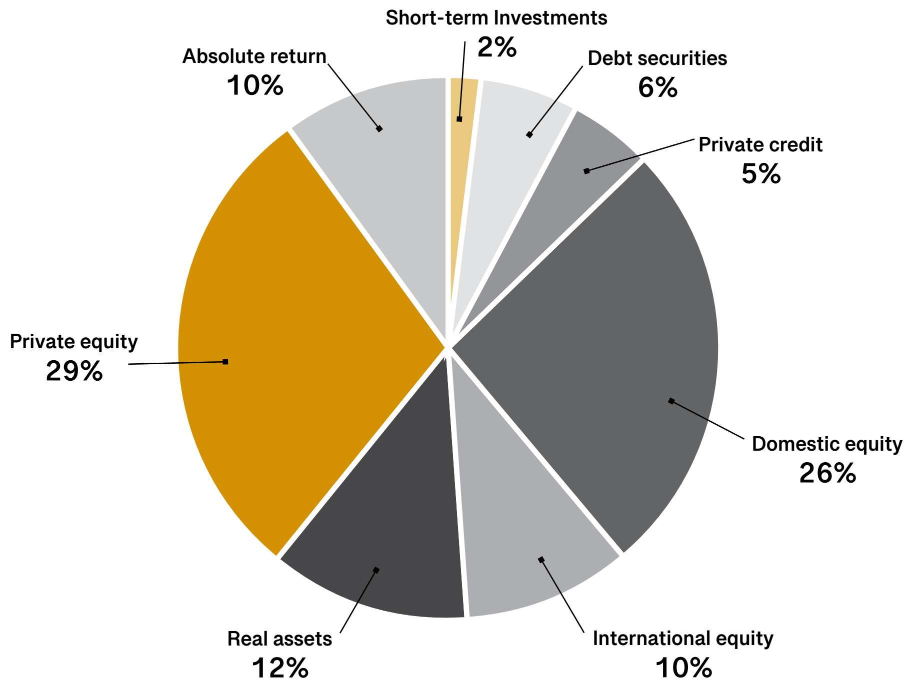
- Members' contributions to the Plan totaled $409.4 million, an increase of $8.7 million or 2.2% from the prior year, primarily as a result of a 1.6% increase in covered payroll. Employee contribution rates in fiscal year 2020-21 ranged from 7.5% - 13.0%, same as in fiscal year 2019-20.
- In order to maintain the fiscal soundness of the Plan, required employer contributions to the Plan totaled $836.6 million, an increase of $93.6 million or 12.6% from the prior year, partly due to the 1.6% increase in covered payroll and partly due to increased employer contribution rates. Employer contribution rates ranged from 22.40% to 26.90% in fiscal year 2020-21 and 20.69% to 25.19% in fiscal year 2019-20 .
- Net investment income increased by $8,481.4 million from the prior year. The majority of the increase is attributed to the $8,550.0 million increase in net appreciation in fair value of investments primarily due to strong investment returns in most of the asset classes that the Retirement System invests in. Interest income decreased by $30.2 million, mainly due to the domestic fixed income markets.
- Benefit payments to Plan participants increased by $68.5 million or 4.5%, due to a 2.4% increase in the number of payees, an increase in average retirement benefits and an increase in the COLA.

Fiduciary net position as of June 30, 2016 through 2021 expressed at cost and fair value of investments are represented in the chart below:



The investment allocation at fair value based on investment category (excluding securities lending collateral and foreign currency contracts) as of June 30, 2021, is represented in the chart below:

Investment Allocation as of June 30, 2021 - Fair Value



CURRENTLY KNOWN FACTS AND EVENTS AFFECTING NEXT YEAR

The Retirement System's funding objective is to meet long-term benefit obligations through contributions and investment income. The Retirement Board believes that the Retirement System remains in a strong financial position to meet its obligations to Plan participants and beneficiaries.

REQUESTS FOR INFORMATION

This financial report is designed to provide a general overview of the Retirement System's finances for the year ended June 30, 2021. Questions regarding any of the information provided in this report or requests for additional financial information should be addressed to:

Jay Huish, Executive Director
San Francisco City and County Employees' Retirement System
1145 Market Street – 5th floor
San Francisco, CA 94103

BASIC FINANCIAL STATEMENTS

Statements of Fiduciary Net Position

June 30, 2021 and 2020

(Dollars in thousands)

	2021	2020
Assets:		
Deposits	$ 49,724	$ 44,386
Contributions receivable – members	19,837	17,959
Investment income receivable:		
Interest	9,578	10,931
Dividends	2,154	2,482
Securities lending	275	490
Receivable from brokers, general partners, others	248,940	463,531
Investments at fair value:		
Short-term investments	651,504	526,053
City investment pool	9,184	32,391
Debt securities:		
U. S. Government and agency securities	1,090,034	1,094,201
Other debt securities	1,094,046	958,424
Equity securities:		
Domestic	9,126,749	6,204,312
International	3,530,581	2,402,026
Real assets	4,182,366	3,840,427
Private credit	1,818,240	1,291,763
Private equity	10,280,363	6,105,532
Absolute return	3,656,388	3,702,667
Foreign currency contracts, net	69	(116)
Invested securities lending collateral	770,857	547,047
Total investments	36,210,381	26,704,727
Total assets	36,540,889	27,244,506
Deferred outflows of resources:		
Other postemployment benefits	2,255	1,587
Total assets and deferred outflows of resources	36,543,144	27,246,093
Liabilities		
Payable to brokers	41,847	35,774
Other	54,977	41,833
Payable to borrowers of securities	770,514	547,029
Total liabilities	867,338	624,636
Deferred inflows of resources:		
Other postemployment benefits	1,972	1,239
Total liabilities and deferred inflows of resources	869,310	625,875
Fiduciary net position – restricted for pension benefits	$ 35,673,834	$ 26,620,218

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

Statements of Changes in Fiduciary Net Position
Years Ended June 30, 2021 and 2020
(Dollars in thousands)

	2021	2020
Additions:		
Member contributions		
Miscellaneous	$ 338,135	$ 330,197
Police	42,304	41,514
Firefighter	28,959	28,938
Total member contributions	409,398	400,649
Employer contributions:		
Miscellaneous	709,918	630,730
Police	73,398	65,059
Firefighter	53,243	47,196
Total employer contributions	836,559	742,985
Investment income (expenses):		
Interest	50,520	80,729
Dividends	84,514	108,344
Net appreciation (depreciation) in fair value of investments	9,372,334	822,342
Securities lending income	4,059	1,313
Investment expenses	(62,331)	(46,671)
Securities lending borrower rebates and expenses	(1,427)	225
Net investment income	9,447,669	966,282
Total additions	10,693,626	2,109,916
Deductions:		
Benefits	1,599,507	1,531,041
Refunds of contributions	20,254	17,036
Administrative expenses	20,995	19,670
Other administrative expenses - other postemployment benefits	(746)	600
Total deductions	1,640,010	1,568,347
Net increase in net position	9,053,616	541,569
Fiduciary net position – restricted for pension benefits:		
Beginning of year	26,620,218	26,078,649
End of year	$ 35,673,834	$ 26,620,218

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

NOTES TO THE BASIC FINANCIAL STATEMENTS

The Notes below provide a summary of the complete Notes found in SFERS' 2021 audited financial statements dated January 27, 2022.

(1) Plan Description

(a) General

The San Francisco City and County Employees' Retirement System (the Retirement System) administers a cost-sharing multiple employer defined benefit pension plan (the Plan) established to provide pension benefits for substantially all employees of the City and County of San Francisco (the City and County), certain classified and certificated employees of the Community College and Unified School Districts, and San Francisco Trial Court employees other than judges. The Retirement System provides service retirement, disability, and death benefits based on specified percentages of defined final average monthly salary and annual cost of living adjustments after retirement. While the Plan is not subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA), it is a tax-qualified plan under Internal Revenue Code provisions. The City and County Charter (the Charter) and the Administrative Code are the authorities that establish and amend the benefit provisions and employer and member contributions to the Plan.

The Retirement System is considered to be a part of the City and County's financial reporting entity and is included in the City and County's basic financial statements as a pension trust fund. The financial statements of the Retirement System are intended to present only the fiduciary net position and changes in fiduciary net position of the Retirement System. They do not purport to, and do not, present fairly the financial position of the City and County as of June 30, 2021 and 2020, and the changes in its financial position for the years then ended in accordance with accounting principles generally accepted in the United States of America. The City and County's Annual Comprehensive Financial Report can be obtained from City Hall, Room 316, 1 Dr. Carlton B. Goodlett Place, San Francisco, CA 94102.

The Retirement System is administered by the Executive Director, an employee of the City and County, in accordance with the provisions of the Charter and Administrative Code, and the policies and regulations of the Retirement Board. The Retirement Board is composed of seven members: three members elected by the active and retired members of the Retirement System; three members appointed by the Mayor in accordance with Section 12.100 of the Charter; and one member of the Board of Supervisors appointed by the President of the Board of Supervisors.

The Retirement System pays benefits according to the category of employment and the type of benefit coverage provided by the City and County. The four main categories of Plan membership are:

a. **Miscellaneous Non-Safety Members** – staff, operational, supervisory, and all other eligible employees who are not in special membership categories.
b. **Sheriff's Department and Miscellaneous Safety Members** – sheriffs assuming office on and after January 7, 2012, and undersheriffs, deputized personnel of the sheriff's department, and miscellaneous safety employees hired on or after January 7, 2012.
c. **Firefighter Members** – firefighters and other employees whose principal duties are in fire prevention and suppression work or who occupy positions designated by law as firefighter member positions.
d. **Police Members** – police officers and other employees whose principal duties are in active law enforcement or who occupy positions designated by law as police member positions.

(b) Service Retirement

Membership Group	Service Retirement Benefit
Miscellaneous Old Plan A8.509 - Miscellaneous employees who became members before November 2, 1976	2.3% @ age 62; maximum benefit 75% of average monthly compensation (12 mo. avg.)
Miscellaneous New Plan Tier I A8.587 - Miscellaneous employees who became members on or after November 2, 1976	2.3% @ age 62; maximum benefit 75% of average monthly compensation (12 mo. avg.)
Miscellaneous New Plan Tier II Plan A8.600 - Miscellaneous employees who became members on or after July 1, 2010 and before January 7, 2012	2.3% @ age 62; maximum benefit 75% of average monthly compensation (24 mo. avg.)
Miscellaneous New Plan Tier III Plan A8.603 - Miscellaneous employees who became members on or after January 7, 2012	2.3% @ age 65; maximum benefit 75% of average monthly compensation (36 mo. avg.)
Police Old Plan A8.595 - Police officers who became members before November 2, 1976 and elected Proposition H benefits effective January 1, 2003	3.0% @ age 55; maximum benefit 90% of average monthly compensation (12 mo. avg.)
Police New Plan Tier I A8.597 - Police officers who became members on or after November 2, 1976 and were eligible for Proposition H benefits effective January 1, 2003	3.0% @ age 55; maximum benefit 90% of average monthly compensation (12 mo. avg.)
Police New Plan Tier II A8.602 - Police officers who became members on or after July 1, 2010 and before January 7, 2012	3.0% @ age 55; maximum benefit 90% of average monthly compensation (24 mo. avg.)
Police New Plan Tier III A8.605 - Police officers who became members on or after January 7, 2012	3.0% @ age 58; maximum benefit 90% of average monthly compensation (36 mo. avg.)
Firefighter Old Plan A8.588 - Firefighters who were members on January 1, 2003, who did not elect Proposition H	2.7% @ age 55; maximum benefit 75% of average monthly compensation (12 mo. avg.)
Firefighter Old Plan A8.596 - Firefighters who became members before November 2, 1976 and elected Proposition H benefits effective January 1, 2003	3.0% @ age 55; maximum benefit 90% of average monthly compensation (12 mo. avg.)
Firefighter New Plan Tier I A8.598 - Firefighters who became members on or after November 2, 1976 and were eligible for 2002 Proposition H benefits effective January 1, 2003	3.0% @ age 55; maximum benefit 90% of average monthly compensation (12 mo. avg.)
Firefighter New Plan Tier II A8.601 - Firefighters who became members on or after July 1, 2010 and before January 7, 2012	3.0% @ age 55; maximum benefit 90% of average monthly compensation (24 mo. avg.)
Firefighter New Plan Tier III A8.604 - Firefighters who became members on or after January 7, 2012	3.0% @ age 58; maximum benefit 90% of average monthly compensation (36 mo. avg.)
Sheriffs Plan A8.608 - Sheriffs, undersheriffs and all deputized personnel of the Sheriff's Department hired on or after January 7, 2012	3.0% @ age 58; maximum benefit 90% of average monthly compensation (36 mo. avg.)
Miscellaneous Safety Plan A8.610 - Probation Officers, District Attorney Investigators and Juvenile Court Counselors who hired on or after January 7, 2012	2.7% @ age 58; maximum benefit 90% of average monthly compensation (36 mo. avg.)

(c) Disability Retirement

All members are eligible to apply for a disability retirement benefit, regardless of age, when they have 10 or more years of credited service and they sustain an injury or illness that prevents them from performing their duties. Safety members are eligible to apply for an industrial disability retirement benefit from their first day on the job if their disability is caused by an illness or injury that they receive while performing their duties.

(d) Separation and Death Benefits

Upon separation from employment, members may either withdraw their accumulated contributions from the Plan or, if they have 5 or more years of credited service, elect to leave their accumulated contribution in the Plan. Safety members who so elect will receive a deferred benefit that is first payable at or after age 50. Miscellaneous members who so elect will receive a vesting benefit that is first payable at or after age 50 for members hired prior to January 7, 2012 or at or after age 53 for those hired on or after January 7, 2012.

Generally, upon the death of an active member who is eligible for a service retirement, qualified surviving spouses or qualified domestic partners receive death benefits based upon a percentage (50 – 100%) of the service retirement benefit. Prior to eligibility for service retirement, a lump sum death payment equal to 6 months' earnable salary plus the member's accumulated contributions is payable to the members' named beneficiary or estate. For Safety members whose death is due to injury or illness caused by performance of duty, salary continuance is provided until the date member would have been eligible for service retirement at which time a continuation benefit equal to 100% of the member's service retirement allowance is provided to the qualified survivor.

Death benefits after retirement are contingent upon the form of annuity payment selected by the member.

(e) Cost of Living Adjustments (COLA)

Basic COLA: All retired members receive a benefit adjustment each July 1. The majority of adjustments are determined by changes in CPI with increases capped at 2%. Old Plan Police and Firefighter members who became members of the Plan before November 2, 1976 receive benefit adjustments based upon 50% of either the actual dollar or the percentage change in the salary of the rank or position on which the member's retirement benefit is based. Although decreases are possible in a given year, a negative adjustment cannot reduce a member's monthly benefit below the initial pension amount.

Supplemental COLA: The Plan provides for a Supplemental COLA in years when there are sufficient "excess" investment earnings in the Plan. The Supplemental COLA is capped at 3.5% less the Basic COLA. Effective July 1, 2012, SFERS members who retired before November 6, 1996 will receive a Supplemental COLA when there are sufficient "excess" investment earnings in the Plan and the Plan is also fully funded on a market value of assets basis. The "full funding" requirement does not apply to SFERS members who retired on or after November 6, 1996 and were hired before January 7, 2012. For members who were hired before January 7, 2012, all Supplemental COLAs paid to them in retirement benefits will continue into the future even where an additional Supplemental COLA is not payable in any given year. For members who are hired on and after January 7, 2012, a Supplemental COLA will be paid to retirees when there are sufficient "excess" investment earnings in the Plan and the Plan is also fully funded on a market value of assets basis. For this group, Supplemental COLAs will not be permanent adjustments to retirement benefits. In years when a Supplemental COLA is not paid, all previously paid Supplemental COLAs will expire.

Ad-hoc COLA: There is no authority for granting ad-hoc COLA increases.

(f) Deferred Retirement Option Program

In February 2008, the voters of the City and County approved a Charter amendment to provide a Deferred Retirement Option Program (DROP) for certain Police members of the Plan to be effective July 1, 2008. An eligible police officer could elect to participate in DROP for a specified period of time up to a maximum of three years depending on the rank of the police officer. While participating in DROP, the police officer continued to work and receive pay as a police officer and accrued monthly DROP distributions posted to a nominal account maintained by the Retirement System. The monthly DROP distribution is equal to the participant's monthly service retirement allowance calculated as of the participant's entry into DROP. Interest at an annual effective rate of 4% and applicable COLAs were posted to the participant's DROP account during participation in DROP. Upon exiting from DROP, the participant receives a lump sum distribution from his or her DROP account and begins to receive a monthly service retirement allowance calculated using age, covered compensation, and service frozen as of the date of his or her entry into DROP. DROP was closed to new applicants on June 30, 2011. The Retirement System has no qualified participants in DROP starting June 30, 2020.

(g) Membership

Membership of the Retirement System consisted of the following as of June 30, 2021

	Police[1]	Fire	Miscellaneous	Total
Retirees and beneficiaries currently receiving benefits	2,801	2,223	25,830	30,854
Active members (including DROP)	2,475	1,599	29,570	33,644
Terminated members entitled to but not yet receiving benefits	294	84	10,748	11,126
Total	5,570	3,906	66,148	75,624

1 Police counts include Sheriff and Miscellaneous Safety.

(2) Summary of Significant Accounting Policies

(a) Basis of Presentation

The accompanying financial statements are prepared on the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America as promulgated by the Governmental Accounting Standards Board (GASB).

Member contributions are recognized in the period in which the contributions are due. Employer contributions and member contributions made by the employer to the Plan are recognized when due pursuant to legal requirements. Benefits and refunds are recognized when currently due and payable in accordance with the terms of the Plan.

(b) Investments

Investments are reported at fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Securities that do not have an established market are reported at estimated fair value derived from third party pricing services. Purchases and sales of investments are recorded on a trade date basis.

The fair values of the Retirement System's partnership interests, which include private equity, real assets, private credit, and some public equity investments, are based on net asset values (NAV) provided by the general partners and investment managers. Partnership financial statements are audited annually as of December 31 and NAV is adjusted monthly or quarterly for cash flows to/from the Retirement System, investment earnings and changes in fair value. Such fair value estimates involve subjective judgments of unrealized gains and losses, and the actual market price of the investments can only be determined by negotiation between independent third parties in a purchase and sale transaction.

The Absolute Return Program invests in limited partnerships and other alternative investment vehicles. The most common investment strategies include, but are not limited to, equity, credit, macro, emerging markets, quantitative, multi-strategy, special situations/other, co-investments and commodities. These investments are valued using their respective net asset value, and are audited annually. The most significant input into the NAV of such an entity is the fair value of its investment holdings. These holdings are typically valued on a monthly basis by each fund's independent administrator and for certain illiquid investments, where no market exists, the General Partner may provide pricing input. The management assumptions are based upon the nature of the investment and the underlying business. Investments have the potential to become illiquid under stressed market conditions and, in certain circumstances, investors may be subject to redemption restrictions which can impede the timely return of capital. The valuation techniques vary based upon underlying investment type, but are predominantly derived from observed market prices.

At its January 8, 2020 Board Meeting, the Retirement Board approved reinstating a securities lending program through the Retirement System's custodian bank. The Charter and Retirement Board policies permit the Retirement System to use investments of the Plan to enter into securities lending transactions – 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 collateral guidelines allow for both cash or non-cash collateral; non-cash collateral includes equity security baskets, investment grade corporate bonds, and sovereign debt issued by Organization for Economic Co-operation and Development (OECD) member countries.

The Retirement System's custodian, BNY Mellon, is the agent in lending the Plan's securities for cash and non-cash collateral. Contracts with the lending agent to indemnify the Retirement System if the borrowers fail to return the securities (and if the collateral were inadequate to replace the securities lent) or fail to pay the Retirement System for income distributions by the securities' issuers while the securities are on loan. BNY Mellon also indemnifies Retirement System from loss on all repurchase agreements held in the securities lending cash collateral account. If, with respect to investments of cash collateral in repurchase transactions, the counterparty fails to deliver the repurchase price upon termination, BNY Mellon will sell the purchased securities and deposit the proceeds to Retirement System's collateral account. If the proceeds are less than the repurchase price, BNY Mellon will credit the amount of such difference to Retirement System's collateral account.

To manage its counterparty risk, BNY Mellon requires additional collateral ranging between 102% and 110% depending on collateral type. As of June 30, 2021, BNY Mellon collected 105.25% for cash loans and 109.82% for non-cash loans, resulting in 108.20% over collateralization on extended loans.

Non-cash collateral cannot be pledged or sold unless the borrower defaults, and therefore, is not reported in the Retirement System's financial statements.

All securities loans can be terminated on demand by either the Retirement System or the borrower, although the average term of the loans as of June 30, 2021 was 68 days. All cash collateral received was invested in a separately managed account by the lending agent using investment guidelines developed and approved by the Retirement System. As of June 30, 2021, the weighted average maturity of the reinvested cash collateral account was 30 days. The term to maturity of the loaned securities is generally not matched with the term to maturity of the investment of said collateral.

Cash collateral invested in the separate account managed by the lending agent is reported at fair value. Payable to borrowers of securities in the statements of fiduciary net position represents the cash collateral received from borrowers. Additionally, the income and costs of securities lending transactions, such as borrower rebates and fees, are recorded respectively as revenues and expenses in the statements of changes in fiduciary net position.

(c) Administrative Expenses

All costs to administer the Retirement System are borne by the Retirement System.

(d) Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets, deferred outflows of resources, liabilities, and deferred inflows of resources, and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of additions and deductions during the reporting period. Actual results could differ from those estimates.

(e) Other Postemployment Benefits Other Than Pensions

The Retirement System adopted GASB Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions. As prescribed under GASB Statement No. 75, net other postemployment benefits (OPEB) liability, deferred outflows/inflows of resources related to OPEB, and OPEB expense are actuarially determined on a citywide basis. Net OPEB liability is measured as the portion of the present value of projected benefit payments to be provided to current active and inactive employees attributed to those employees' past service, less the amount of the Retiree Health Care Trust Fund investments measured at fair value.

(3) Deposits

Deposits are carried at cost, which approximates fair value. Deposits in bank accounts were $49,724,000 as of June 30, 2021.

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, a government may not be able to recover its deposits or may not be able to recover collateral securities that are in the possession of an outside party. The Retirement System does not have a specific policy addressing custodial credit risk for deposits. As of June 30, 2021, the Retirement System's deposits in bank accounts were not exposed to custodial credit risk.

(4) Investments

The Retirement System's investments are invested pursuant to investment policy guidelines as established by the Retirement Board. The objective of the policy is to maximize the expected return of the fund at an acceptable level of risk. The Retirement Board has established percentage guidelines for types of investments to ensure the portfolio is diversified.

Investment managers are required to diversify by issue, maturity, sector, coupon, and geography. Investment managers retained by the Retirement System follow specific investment guidelines and are evaluated against specific market benchmarks that represent their investment style. Any exemption from general guidelines requires approval from the Retirement Board. The Retirement System invests in securities with contractual cash flows, such as asset-backed securities, commercial mortgage-backed securities, and collateralized mortgage obligations. The value, liquidity, and related income of these securities are sensitive to changes in economic conditions, including real estate values, delinquencies or defaults, or both, and may be affected by shifts in the market's perception of the issuers and changes in interest rates.

The investment policy permits investments in domestic and international debt and equity securities, securities lending, foreign currency contracts, derivative instruments, private equity, real assets, private credit, and absolute return investments, which include investments in a variety of commingled partnership vehicles.

The Retirement Board's asset allocation policy for the year ended June 30, 2021 is as follows:

Asset Class	Target Allocation through October 2020	Target Allocation since November 2020
Global Equity	31.0%	37.0%
Treasuries	6.0%	8.0%
Liquid Credit	3.0%	5.0%
Private Credit	10.0%	10.0%
Private Equity	18.0%	23.0%
Real Assets	17.0%	10.0%
Hedge Funds/Absolute Return	15.0%	10.0%
Leverage	0.0%	-3.0%
	100.0%	100.0%

The Retirement System is not directly involved in repurchase or reverse repurchase agreements. However, external investment managers retained by the Retirement System may employ repurchase arrangements if the securities purchased or sold comply with the manager's investment guidelines. The Retirement System monitors the investment activity of its investment managers to ensure compliance with guidelines. In addition, the Retirement System's securities lending cash collateral separately managed account is authorized to use repurchase arrangements. As of June 30, 2021, $266,178,000 (or 34.5% of reinvested cash collateral), consisted of such agreements.

The Retirement System maintains its operating fund cash in the City and County's investment pool. The City and County's pool is invested pursuant to investment policy guidelines established by the City Treasurer, subject to review by the Treasury Oversight Committee. The Treasury Oversight Committee, established under California Government Code Sections 27130 to 27137, is composed of various City and County officials and representatives of agencies with large cash balances in the pool. The investment policy addresses soundness of financial institutions in which the City and County will deposit funds, types of investment instruments as permitted by the California Government Code, and the percentage of the portfolio which may be invested in certain instruments with longer terms to maturity. The provisions of the City and County's investment policy also address interest rate risk, credit risk, and concentration of credit risk and provide for additional restrictions related to investments. The notes to the basic financial statements of the City and County provide more detailed information concerning deposit and investment risks associated with the City and County's pool of cash and investments at June 30, 2021.

(a) Interest Rate Risk

Interest rate risk is the risk that changes in interest rates may adversely affect the fair value of an investment. The Retirement System does not have a specific policy to manage interest rate risk.

The table below depicts the segmented time distribution for fixed income investments based upon the expected maturity (in years) as of June 30, 2021.

Investments at Fair Value as of June 30, 2021
(Dollar amounts in thousands)

		Maturities			
Investment Type	Fair Value	Less than 1 year	1-5 years	6-10 years	10+ years
Asset Backed Securities	$ 24,457	$ 20	$ 3,915	$ 4,108	$ 16,414
Bank Loans	112,605	3,151	57,243	52,211	-
City Investment Pool	9,184	6,597	2,587	-	-
Collateralized Bonds	2,011	-	-	533	1,478
Commercial Mortgage-Backed	87,798	-	621	1,927	85,250
Commingled and Other Fixed Income Funds	321,260	2,009	-	87,236	232,015
Corporate Bonds	274,249	1,686	89,417	142,457	40,689
Corporate Convertible Bonds	197,414	1,917	141,231	49,560	4,706
Government Bonds	1,139,367	1,545	755,004	351,452	31,366
Government Mortgage Backed Securities	4,783	-	-	-	4,783
Municipal/Provincial Bonds	3,079	-	1,292	337	1,450
Non-Government Backed Collateralized Mortgage Obligations	16,541	366	-	-	16,175
Options	6	(6)	12	-	-
Short Term Investment Funds	651,504	651,504	-	-	-
Swaps	510	26	217	292	(25)
Total	$ 2,844,768	$ 668,815	$ 1,051,539	$ 690,113	$ 434,301

(b) Credit Risk – Investments

Credit risk is the risk that an issuer or other counterparty to an investment may not fulfill its obligations. Fixed income investment managers retained by the Retirement System follow specific investment guidelines and are evaluated against specific market benchmarks that represent their investment style. Fixed income managers typically are limited within their portfolios to no more than 5% exposure in any single security, with the exception of United States Treasury and government agency securities. The Retirement System's credit risk policy is embedded in the individual investment manager agreements as prescribed and approved by the Retirement Board.

Investments are classified and rated using the lower of (1) S&P Global Ratings (S&P) rating or (2) Moody's Investors Service (Moody's) rating corresponding to the equivalent S&P rating. If only a Moody's rating is available, the rating equivalent to S&P is used for the purpose of this disclosure.

The credit rating of the United States remains a point of concern for some investors. In 2011, S&P lowered the credit rating for U.S. long-term debt to AA+ from AAA and continues to maintain that posture. Moody's and Fitch, the other two large credit rating agencies, continue to maintain a AAA rating for U.S. long-term debt. Additional ratings changes by the credit rating agencies would likely have a material impact on the credit risk and value of the Retirement System's investments in U.S. government agency securities, U.S. government bonds, and U.S. government mortgage-backed securities.

The following table illustrates the Retirement System's exposure to credit risk as of June 30, 2021. Investments issued or explicitly guaranteed by the U.S. government of $1,082,472,000 as of June 30, 2021, are exempt from the credit rating disclosures and are excluded from the table below

Credit Ratings of Fixed Income Investments as of June 30, 2021
(Dollar amounts in thousands)

Credit Rating	Fair Value	Fair Value as a Percentage of Total
AAA	$ 630,147	35.8%
AA	11,985	0.7%
A	34,910	2.0%
BBB	95,573	5.4%
BB	112,351	6.4%
B	205,694	11.7%
CCC	45,619	2.6%
CC	4,806	0.3%
D	5,589	0.3%
Not Rated	615,622	34.8%
Total	$ 1,762,296	100.0%

The securities listed as "Not Rated" include short-term investment funds, government mortgage-backed securities, and investments that invest primarily in rated securities, such as commingled funds and money market funds, but do not themselves have a specific credit rating. Excluding these investments, the "not rated" component of credit would be approximately 8.4% for 2021.

(c) Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of the Retirement System's investment in a single issuer. Securities issued or guaranteed by the U.S. government or its agencies are exempt from this limit.

As of June 30, 2021, the Retirement System had no investments of a single issuer that equaled or exceeded 5% of total Retirement System's investments or net position.

(d) Custodial Credit Risk

Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, a government may not be able to recover the value of investment or collateral securities that are in the possession of an outside party. The Retirement System does not have a specific policy addressing custodial credit risk for investments, but investments are generally insured, registered, or held by the Retirement System or its agent in the Retirement System's name. As of June 30, 2021, $127,431,000 of the Retirement System's investments were exposed to custodial credit risk because they were not insured or registered in the name of the Retirement System, and were held by the counterparty's trust department or agent but not in the Retirement System's name.

(e) Foreign Currency Risk

The Retirement System's exposure to foreign currency risk derives from its positions in foreign currency denominated cash, equity, fixed income, private equity, real assets, and private credit. The Retirement System's investment policy allows international managers to enter into foreign exchange contracts, which are limited to hedging currency exposure existing in the portfolio.

The Retirement System's net exposures to foreign currency risk as of June 30, 2021, are as follows:

Foreign Currency Risk Analysis as of June 30, 2021
(Dollar amounts in thousands)

Currency	Cash	Equities	Fixed Income	Private Equities	Real Assets	Private Credit	Foreign Currency Contracts	Total
Argentina peso	$ -	$ -	$ 1	$ -	$ -	$ -	$ -	$ 1
Australian dollar	-	20,693	121	12,820	-	-	2,565	36,199
Brazil real	-	10,282	1,995	-	-	-	1,764	14,041
Canadian dollar	-	51,175	14	-	-	-	3,976	55,165
Chilean peso	-	1,333	829	-	-	-	986	3,148
Chinese r yuan HK	-	-	-	-	-	-	(5,497)	(5,497)
Chinese yuan renminbi	38,546	483,245	4,622	-	-	-	(17,531)	508,882
Colombian peso	-	-	5,113	-	-	-	(3,431)	1,682
Czech koruna	-	-	(60)	-	-	-	1,760	1,700
Danish krone	-	54,690	-	-	-	-	-	54,690
Dominican rep peso	-	-	618	-	-	-	(808)	(190)
Egyptian pound	-	-	670	-	-	-	-	670
Euro	-	578,211	45,092	139,170	431,880	65,124	(108,522)	1,150,955
Hong Kong dollar	-	120,819	-	-	-	-	872	121,691
Hungarian forint	-	3,342	828	-	-	-	882	5,052
Indonesian rupiah	-	1,176	3,707	-	-	-	595	5,478
Israeli shekel	-	-	-	-	-	-	(19)	(19)

Foreign Currency Risk Analysis as of June 30, 2021 (cont'd)
(Dollar amounts in thousands)

Currency	Cash	Equities	Fixed Income	Private Equities	Real Assets	Private Credit	Foreign Currency Contracts	Total
Japanese yen	-	80,806	-	-	56,587	-	20,759	158,152
Kazakhstan tenge	-	-	253	-	-	-	-	253
Kenyan shilling	-	-	-	-	-	-	-	-
Malaysian ringgit	-	-	3,063	-	-	-	137	3,200
Mexican peso	-	6,589	1,923	-	-	-	2,111	10,623
New Taiwan dollar	-	46,346	-	-	-	-	-	46,346
Norwegian krone	-	4,817	-	-	-	-	-	4,817
Peruvian sol	-	-	5,679	-	-	-	(5,863)	(184)
Philippines peso	-	1,833	206	-	-	-	(152)	1,887
Polish zloty	-	9,086	2,024	-	-	-	847	11,957
Pound sterling	-	210,529	8,079	53,304	50,326	-	(11,917)	310,321
Romanian leu	-	-	851	-	-	-	501	1,352
New Russian ruble	-	2,332	2,523	-	-	-	1,219	6,074
Singapore dollar	-	1,495	-	-	-	-	-	1,495
South African rand	-	11,021	8,676	-	-	-	(6,419)	13,278
South Korean won	-	33,545	-	-	-	-	(459)	33,086
Swedish krona	-	45,299	-	-	-	-	-	45,299
Swiss franc	-	99,888	-	-	-	-	(645)	99,243
Thailand baht	-	4,330	1,442	-	-	-	2,219	7,991
Turkish lira	-	3,509	-	-	-	-	86	3,595
Uruguayan peso	-	-	-	-	-	-	130	130
Total	$ 38,546	$ 1,886,391	$ 98,269	$ 205,294	$ 538,793	$ 65,124	($ 119,854)	$ 2,712,563

(f) Unfunded Investments Commitments

The Retirement System has unfunded commitments to contribute capital for real assets in the amount of $2,256,250,000, private equity in the amount of $3,302,462,000, private credit in the amount of $1,697,846,000 and absolute return in the amount of $336,269,000 totaling $7,592,827,000 as of June 30, 2021.

(g) Derivative Instruments

The Retirement System reports its derivative instruments under the provisions of GASB Statement No. 53, Accounting and Financial Reporting for Derivative Instruments. Pursuant to the requirements of this statement, the Retirement System has provided a summary of derivative instrument activities during the reporting periods presented and the related risks.

As of June 30, 2021, the derivative instruments held by the Retirement System are considered investments and not hedges for accounting purposes. The gains and losses arising from this activity are recognized as incurred in the statement of changes in fiduciary net position. All investment derivatives discussed below are included within the investment risk schedules, which precede this subsection. Investment derivative instruments are disclosed separately to provide a comprehensive and distinct view of this activity and its impact on the overall investment portfolio.

Valuation methods used by the Retirement System are described in more detail in Note 2(b). The fair value of the exchange traded derivative instruments, such as futures, options, rights, and warrants are based on quoted market prices. The fair values of forward foreign currency contracts are determined using a pricing service, which uses published foreign exchange rates as the primary source. The fair values of swaps are determined by the Retirement System's investment managers based on quoted market prices of the underlying investment instruments or by an external pricing service using various proprietary methods.

The table below presents the notional amounts, the fair values, and the related net appreciation (depreciation) in the fair value of derivative instruments that were outstanding at June 30, 2021:

As of and for the Year Ended June 30, 2021
(Dollar amounts in thousands)

Derivative Type / Contracts	Notional Amount	Fair Value	Net Appreciation (Depreciation) in Fair Value
Forwards			
Foreign Exchange Contracts	$ 263,225	$ 69	$ 185
Futures			
Bond Futures Long	8,898	84	84
Equity Index Futures Long	76,766	1,073	(548)
Equity Index Futures Long	400,741	1,474	1,070
Treasury Futures Short	(8,215)	(47)	(47)
Options			
Credit Contracts	-	(6)	12
Foreign Exchange Contracts	200	12	(133)
Swaps			
Credit Contracts	5,375	324	(150)
Currency Contracts	440	247	(306)
Interest Rate Contracts	115,953	(61)	(3,660)
Rights/Warrants			
Equity Contracts	40,449 shares	101,656	(5,254)
Total		$ 104,825	$ (8,747)

All investment derivatives are reported as investments at fair value in the statements of fiduciary net position. Rights, warrants, and equity index futures are reported in equity securities. Foreign exchange contracts are reported in foreign currency contracts, which also include spot contracts that are not derivatives. All other derivative contracts are reported in other debt securities. All changes in fair value are reported as net appreciation (depreciation) in fair value of investments in the statements of changes in fiduciary net position.

Counterparty Credit Risk

The Retirement System is exposed to credit risk on non-exchange traded derivative instruments that are in asset positions. The tables below present those investments being classified and rated using the lower of (1) S&P Global Ratings (S&P) rating or (2) Moody's Investors Service (Moody's) rating corresponding to the equivalent S&P rating. If only a Moody's rating is available, the rating equivalent to S&P is used for the purpose of this disclosure.

Derivative Instruments Subject to Counterparty Credit Risk as of June 30, 2021
(Dollar amounts in thousands)

Credit Rating	Fair Value
AA	$462
A	1,609
BBB	1,684
Total	$3,755

Custodial Credit Risk

The custodial credit risk disclosure for exchange traded derivative instruments is made in accordance with the custodial credit risk disclosure requirements of GASB Statement No. 40. At June 30, 2021, all of the Retirement System's investments in derivative instruments are held in the Retirement System's name and are not exposed to custodial credit risk.

Interest Rate Risk

The table below describes the maturity periods of the derivative instruments exposed to interest rate risk at June 30, 2021.

Derivative Interest Rate Risk as of June 30, 2021
(Dollar amounts in thousands)

		Maturities			
Derivative Type / Contracts	Fair Value	Less than 1 year	1-5 years	6-10 years	10+ years
Forwards					
Treasury Futures Long	$ 1,474	$ 1,474	-	-	-
Treasury Futures Short	(47)	(47)	-	-	-
Options					
Foreign Exchange Contracts	12	-	12	-	-
Swaps					
Currency Contracts	247	-	187	60	-
Interest Rate Contracts	(61)	-	(268)	232	(25)
Total	$ 1,625	$ 1,427	$ (69)	$ 292	$ (25)

The following table details the reference rate, notional amount, and fair value of interest rate swaps that are highly sensitive to changes in interest rates as of June 30, 2021:

Derivative Instruments Highly Sensitive to Interest Rate Changes as of June 30, 2021
(Dollar amounts in thousands)

Investment Type	Reference Rate	Notional Value	Fair Value
Interest Rate Swap	Receive Fixed 0.25%, Pay Variable 3-Month BBA	$ 1,760	$ (54)
Interest Rate Swap	Receive Fixed 0.48%, Pay Variable 6-Month PRIBOR	658	(7)
Interest Rate Swap	Receive Fixed 0.57%, Pay Variable 6-Month WIBOR	22,800	216
Interest Rate Swap	Receive Fixed 1.48%, Pay Variable 6-Month PRIBOR	1,152	35
Interest Rate Swap	Receive Fixed 2.00%, Pay Variable 6-Month BUBOR	379	82
Interest Rate Swap	Receive Fixed 2.39%, Pay Variable 6-Month THB	5,158	(103)
Interest Rate Swap	Receive Fixed 2.42%, Pay Variable 6-Month THB	191	10
Interest Rate Swap	Receive Fixed 2.81%, Pay Variable 6-Month THB	613	(21)
Interest Rate Swap	Receive Fixed 3.34%, Pay Variable 3-Month KLIBOR	5,201	96
Interest Rate Swap	Receive Fixed 3.35%, Pay Variable 1-Day BIDOR	959	(25)
Interest Rate Swap	Receive Fixed 4.10%, Pay Variable 1-Day BIDOR	805	(10)
Interest Rate Swap	Receive Fixed 4.35%, Pay Variable 28-Day MXIBR	91	(4)
Interest Rate Swap	Receive Fixed 4.50%, Pay Variable 1-Day BIDOR	598	48
Interest Rate Swap	Receive Fixed 4.87%, Pay Variable 1-Day BIDOR	790	(23)
Interest Rate Swap	Receive Fixed 5.25%, Pay Variable 1-Day BIDOR	241	7
Interest Rate Swap	Receive Fixed 5.26%, Pay Variable 3-Month JIBAR	837	(21)
Interest Rate Swap	Receive Fixed 5.60%, Pay Variable 1-Day COOVIBR	359	17
Interest Rate Swap	Receive Fixed 6.71%, Pay Variable 28-Day MXIBR	4,145	30
Interest Rate Swap	Receive Fixed 7.13%, Pay Variable 28-Day MXIBR	11,340	(96)
Interest Rate Swap	Receive Fixed 7.48%, Pay Variable 1-Day BIDOR	574	46
Interest Rate Swap	Receive Fixed 11.33%, Pay Variable 1-Day BIDOR	1,158	(3)
Interest Rate Swap	Receive Variable 1-Day BIDOR, Pay Fixed 6.25%	693	(37)
Interest Rate Swap	Receive Variable 1-Day BIDOR, Pay Fixed 7.17%	598	49
Interest Rate Swap	Receive Variable 1-Day COOVIBR, Pay Fixed 1.20%	996	(8)
Interest Rate Swap	Receive Variable 1-Day COOVIBR, Pay Fixed 4.20%	1,774	(63)
Interest Rate Swap	Receive Variable 28-Day MXIBR, Pay Fixed 5.12%	1,696	(1)
Interest Rate Swap	Receive Variable 3-Month BBA, Pay Fixed 0.36%	998	68
Interest Rate Swap	Receive Variable 3-Month JIBAR, Pay Fixed 7.46%	2,591	124
Interest Rate Swap	Receive Variable 6-Month WIBOR, Pay Fixed 0.94%	46,798	(413)
Total Interest Rate Swaps		$ 115,953	$ (61)

Foreign Currency Risk

At June 30, 2021, the Retirement System is exposed to foreign currency risk on its derivative investments denominated in foreign currencies.

Derivative Instruments Foreign Currency Risk Analysis as of June 30, 2021
(Dollar amounts in thousands)

Currency	Forwards	Options	Rights/ Warrants	Swaps	Futures	Total
Argentina peso	$ -	$ -	$ -	$ (197)	$ -	$ (197)
Australian dollar	2,565	-	-	-	-	2,565
Brazil real	1,764	-	-	161	-	1,925
Canadian dollar	3,976	-	-	-	14	3,990
Chilean peso	986	-	-	-	-	986
Chinese r yuan HK	(5,497)	-	-	-	-	(5,497)
Chinese yuan renminbi	(17,531)	-	-	-	-	(17,531)
Colombian peso	(3,431)	-	-	30	-	(3,401)
Czech koruna	1,760	-	-	(60)	-	1,700
Dominican rep peso	(808)	-	-	-	-	(808)
Euro	(108,522)	(4)	111	-	66	(108,349)
Hong Kong dollar	872	-	-	-	-	872
Hungarian forint	882	-	-	(3)	-	879
Indonesian rupiah	595	-	-	-	-	595
Israeli shekel	(19)	-	-	-	-	(19)
Japanese yen	20,759	-	-	-	-	20,759
Malaysian ringgit	137	-	-	7	-	144
Mexican peso	2,111	-	-	(122)	-	1,989
Peruvian sol	(5,863)	-	-	-	-	(5,863)
Philippines peso	(152)	-	-	-	-	(152)
Polish zloty	847	-	-	14	-	861
Pound sterling	(11,917)	-	-	-	3	(11,914)
Romanian leu	501	-	-	-	-	501
New Russian ruble	1,219	-	-	-	-	1,219
South African rand	(6,419)	-	-	(36)	-	(6,455)
South Korean won	(459)	-	-	-	-	(459)
Swiss franc	(645)	-	5	-	-	(640)
Thailand baht	2,219	-	-	143	-	2,362
Turkish lira	86	-	-	-	-	86
Uruguayan peso	130	-	-	-	-	130
Total	$ (119,854)	$ (4)	$ 116	$ (63)	$ 83	$ (119,722)

Contingent Features

At June 30, 2021, the Retirement System held no positions in derivatives containing contingent features.

(5) Fair Value Measurement of Investments

The Retirement System categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles.

The Retirement System has the following recurring fair value measurements as of June 30, 2021:
(Dollar amounts in thousands)

As of June 30, 2021	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
Investments by fair value level				
Short-term investments	$ 644,979	$ 606,433	$ -	$ 38,546
Debt securities:				
U.S. government and agency securities	1,090,034	1,080,220	9,814	-
Other debt securities	951,706	178,928	656,576	116,202
Equity securities:				
Domestic	3,887,573	3,881,652	3,635	2,286
International	2,905,789	2,905,142	647	-
Foreign currency contracts, net	69	-	-	69
Invested securities lending collateral	770,857	-	417,710	353,147
Total investments by fair value level	10,251,007	$ 8,652,375	$ 1,088,382	$ 510,250
Investments measured at the net asset value (NAV)				
Short-term investments	6,525			
Fixed income funds invested in:				
Other debt Securities	142,340			
Equity funds invested in:				
Domestic	5,239,176			
International	624,792			
Real assets	4,182,366			
Private Credit	1,818,240			
Private Equity	10,280,363			
Absolute return	3,656,388			
Total investments measured at the NAV	25,950,190			
Investments not subject to the fair value hierarchy				
City investment pool	9,184			
Total investments measured at fair value	$36,210,381			

Investments, at Fair Value

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. In some cases, a valuation technique may have multiple inputs used to measure fair value, and each input might fall into a different level of the fair value hierarchy. The level in the fair value hierarchy within which a fair value measurement falls in its entirety is determined based on the lowest level input that is significant to the measurement. The prices used in determining the fair value hierarchy are obtained from various pricing sources by the Retirement System's custodian bank.

Debt and equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets. Debt and equity securities classified in Level 2 of the fair value hierarchy are valued using prices determined by the use of matrix pricing techniques maintained by the various pricing vendors for these securities. Debt securities including short-term instruments are priced based on evaluated prices. Such evaluated prices may be determined by factors which include, but are not limited to, market quotations, yields, maturities, call features, ratings, institutional size trading in similar groups of securities and developments related to specific securities. For equity securities not traded on an active exchange, or if the closing price is not available, corroborated indicative quotes obtained from pricing vendors are generally used. Debt and equity securities classified in Level 3 of the fair value hierarchy are securities whose stated market prices are unobservable by the market place. Many of these securities are priced using uncorroborated indicative quotes, adjusted prices based on inputs from different sources, or evaluated prices using unobservable inputs, such as extrapolated data, proprietary models, and indicative quotes from pricing vendors.

Investments, at Net Asset Value (NAV)

The equity and debt funds are commingled funds that are priced at net asset value by industry vendors and fund families. NAV is the fair value of all securities owned by a fund, minus its total liabilities, divided by the number of shares issued and outstanding. The NAV of an open-end fund is its price.

The fair value of the Retirement System's investments in private equity, real assets, private credit, absolute return, and some public equity investments are based on NAV provided by the investment managers and general partners (hereinafter collectively referred to as the "General Partners"). Such value generally represents the Retirement System's proportionate share of the net assets of the limited partnerships. The partnership financial statements are audited annually as of December 31 and the NAV is adjusted by additional contributions to and distributions from the partnership, the Retirement System's share of net earnings and losses, and unrealized gains and losses resulting from changes in fair value, as determined by the General Partners.

The General Partners may use one or more valuation methodologies outlined in FASB ASC 820, Fair Value Measurement. For some investments, little market activity may exist. The General Partners' determination of fair value is then based on the best information available in the circumstances and may involve subjective assumptions and estimates, including the General Partners' assessment of the information that market participants would use in valuing the investments. The General Partners may take into consideration a combination of internal and external factors, including but not limit to, appropriate risk adjustments for nonperformance and liquidity. Such fair value estimates involve subjective judgments of unrealized gains and losses.

The values provided by the General Partners may differ significantly from the values that would have been used had a ready market existed for these investments.

Private credit investment strategies include capital preservation, return maximization and opportunistic. Investments in the asset class are achieved through commingled funds and separate account partnerships. Private credit investments are mostly illiquid and distributions are received over the life of the investments. These investments are not typically redeemed, nor do they have set redemption schedules. There are fourteen public equity investments held in commingled funds valued at NAV. These investments may be subject to varying lock-up provisions and redemption schedules. The real asset holdings are illiquid. Distributions are received over the life of the investments, which could equal or exceed ten years. They are not redeemed, nor do they have set redemption schedules. Private equity investment strategies include buyout, venture capital, growth capital, and special situations. Investments in the asset class are achieved primarily through commingled funds and separate account partnerships, but may also include direct and co-investment opportunities. Private equity investments are illiquid and distributions are received over the life of the investments, which could equal or exceed ten years. These investments are not typically redeemed, nor do they have set redemption schedules.

Absolute return investment strategies include equity, credit, macro, emerging markets, quantitative, multi-strategy, special situations/other, co-investments and commodities. Investments are achieved through limited partnerships. The table below provides a summary of the terms and conditions upon which the Retirement System may redeem its absolute return investments. Investments have the potential to become illiquid under stressed market conditions and, in certain circumstances, investors may be subject to redemption restrictions that differ from the standard terms and conditions summarized here, which can impede the return of capital according to those terms and conditions.

Absolute Return Investments Measured at NAV as of June 30, 2021

% of NAV	Redemption Frequency (excludes illiquid)	Redemption Notice Period
43%	Monthly	5-95 Days
45%	Quarterly	45-180 Days
12%	Semi-annually	60-180 Days
100%		

% of NAV in Lock Up	As of Fiscal Year-End
14%	2021-2022
10%	2022-2023
4%	2023-2024
0%	2024-2025

(6) Securities Lending

The Retirement System lends U.S. government obligations, domestic and international bonds, and equities to various brokers with a simultaneous agreement to return collateral for the same securities plus a fee in the future. The securities lending agent manages the securities lending program and receives securities and cash as collateral. Cash and non-cash collateral is pledged at 102% to 110% depending on security type. There are no restrictions on the number of securities that can be lent at one time. The term to maturity of the loaned securities is generally not matched with the term to maturity of the investment of the corresponding collateral.

The Retirement System does not have the ability to pledge or sell collateral securities unless a borrower defaults. The securities collateral is not reported on the statements of fiduciary net position. As of June 30, 2021 the Retirement System has no credit risk exposure to borrowers because the amounts the Retirement System owes them exceed the amounts they owe the Retirement System. As with other extensions of credit, the Retirement System may bear the risk of delay in recovery or of rights in the collateral should the borrower of securities fail financially. However, the lending agent indemnifies the Retirement System against all borrower defaults.

As of June 30, 2021, the Retirement System has lent $2,060,039,000 in securities and received collateral of $770,514,000 and $1,458,413,000 in cash and securities, respectively, from borrowers. The cash collateral is invested in a separate account managed by the lending agent using investment guidelines approved by the Retirement Board. Due to the increase in the fair value of assets held in the separately managed account, the Retirement System's invested cash collateral was valued at $770,857,000. The net unrealized gain of $343,000 is presented as part of the net appreciation (depreciation) in fair value of investments in the statement of changes in fiduciary net position in the year in which the unrealized gains and losses occur. The Retirement System is exposed to investment risk including the possible loss of principal value in the separately managed cash collateral reinvestment account due to the fluctuation in the fair value of the assets held in the account.

The Retirement System's securities lending transactions as of June 30, 2021 are summarized in the following table.

Securities Lending as of June 30, 2021
(Dollar amounts in thousands)

Investment Type	Fair Value of Loaned Securities	Cash Collateral	Fair Value of Non-Cash Collateral
Securities on Loan for Cash Collateral			
U.S. Corporate Fixed Income	$ 86,347	$ 88,523	$ -
U.S. Equities	445,420	477,334	-
U.S. Government Fixed Income	191,064	194,848	-
International Fixed Income	825	882	-
International Equities	8,418	8,927	-
Securities on Loan for Non-Cash Collateral	-		
U.S. Corporate Fixed Income	3,118	-	3,192
U.S. Equities	538,114	-	586,380
U.S. Government Fixed Income	655,451	-	717,379
International Fixed Income	4,753	-	5,153
International Equities	126,529	-	146,309
	$ 2,060,039	$ 770,514	$ 1,458,413

The following table presents the segmented time distribution for the reinvested cash collateral account based upon the expected maturity (in years) as of June 30, 2021.

Fair Value of Cash Collateral Account as of June 30, 2021
(Dollar amounts in thousands)

Investment Type	Fair Value	Maturity Less Than 1 Year	Maturity 1-5 Years
Certificates of Deposit	$ 20,728	$ 20,728	$ -
Commercial Paper	98,781	98,781	-
Floating Rate Notes	349,033	345,999	3,034
Money Market Funds	36,095	36,095	-
Repurchase Agreements	266,178	266,178	-
Payable/Receivable	42	42	-
Total	$770,857	$ 767,823	$ 3,034

The Retirement System's exposure to credit risk in its reinvested cash collateral account as of June 30, 2021 is as follows:

Credit Rating of Cash Collateral Account as of June 30, 2021
(Dollar amounts in thousands)

Credit Rating	Fair Value	Fair Value as a Percentage of Total
A-1	$ 125,609	16.3%
AAA	36,095	4.7%
AA	181,580	23.6%
A	161,353	20.9%
Not Rated *	266,220	34.5%
Total	$ 770,857	100.0%

* This figure includes $266,178 in repurchase agreements.

(7) Investments in Real Assets

Real assets investments represent the Retirement System's interests in real assets limited partnerships and separate accounts. The changes in these investments during the year ended June 30, 2021 is summarized as follows:
(Dollars in thousands)

Investments	2021
Beginning of the year	$ 3,840,427
Capital investments	547,457
Equity in net earnings	72,408
Net appreciation (depreciation) in fair value	509,855
Capital distributions	(787,781)
End of the year	$ 4,182,366

(8) Benefits

Allowances and benefits incurred during the year are summarized as follows:
(Dollars in thousands)

	2021
Service retirement benefits	$ 1,272,492
Disability retirement benefits	204,831
Death benefits	11,538
COLA benefit adjustments	110,646
Total	$ 1,599,507

(9) Funding Policy

Employer and employee (member) contributions are mandated by the Charter. The Charter specifies that employer contributions are determined as normal cost plus an amortization of the unfunded liability over a period not to exceed 20 years. Retirement Board policy determines the actual amortization period subject to the Charter limitation. Schedules of both employer and employee contribution rates may be found in the Statistical Section of this report. A ten-year schedule of funding progress may be found in the Actuarial Section, while a ten-year schedule of actuarially determined employer contributions is in the Required Supplemental Information subsection of this Financial Section.

(10) Net Pension Liability of Employers

The components of the employers' net pension liability at June 30, 2021 was as follows:
(Dollars in thousands)

	June 30, 2021
Total pension liability	33,088,765
Fiduciary net position	35,673,834
Net pension liability/(asset)	(2,585,069)
Fiduciary net position as a percentage of total pension liability	107.8%

(a) Actuarial Assumptions

The total pension liability as of June 30, 2021 was determined by an actuarial valuation as of July 1, 2020 which was rolled forward to June 30, 2021 using standard roll forward procedures.

The following is a summary of actuarial methods and assumptions used at the June 30, 2021 measurement date:

Inflation	2.50%
Salary increases	3.25% plus merit component based on employee classification and years of service
Investment rate of return	7.40%, net of pension plan investment expense, including inflation

Mortality rates for healthy Miscellaneous members were based upon adjusted PubG-2010 Employee and Retiree tables for non-annuitants and retirees, respectively. Mortality rates for Safety members were based upon adjusted PubS-2010 Employee and Retiree tables for non-annuitants and retirees, respectively. Mortality rates were then projected generationally from the base year using the MP-2019 projection scale.

The actuarial assumptions used at the June 30, 2021, measurement date are based upon the results of a demographic experience study for the period July 1, 2014 through June 30, 2019, and an economic experience study as of July 1, 2020.

The Supplemental COLA assumption as of June 30, 2021, was developed based upon the probability and amount of Supplemental COLA for each future year. The tables below show the net assumed Supplemental COLA for members at sample years.

Assumed Future Supplemental COLA for Members Retiring Before 11/6/1996 or Hired After Prop C

July 1	Old Miscellaneous and all New Plans	Old Police & Fire, pre-7/1/75 Retirements	Old Police & Fire A8.595, A8.596, Retirements
2021	1.50%	1.60%	1.00%
2022	0.80%	0.80%	0.50%
2027	0.60%	0.70%	0.40%
2032	0.50%	0.60%	0.40%
2034+	0.50%	0.60%	0.40%

Assumed Future Supplemental COLA for Members Retiring After 11/6/1996 and Hired Before Prop C

July 1	Old Miscellaneous and all New Plans	Old Police & Fire
2021	1.50%	3.5% less assumed Basic COLA, not less than zero
2022+	0.75%	½ x (3.5% less assumed Basic COLA), not less than zero

The long-term expected rate of return on pension plan investments was 7.40%. It was set by the Retirement Board after consideration of both expected future returns and historical returns experienced by the Retirement System. Expected future returns were determined by using a building-block method in which best-estimate ranges of expected future real rates of return were developed for each major asset class. These ranges were combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

The target allocation and best estimates of geometric long-term expected real rates of return (expected returns, net of pension plan investment expense and inflation) for each major asset class as of June 30, 2021, are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Global Equity	37.0%	4.2%
Treasuries	8.0%	0.0%
Liquid Credit	5.0%	2.3%
Private Credit	10.0%	5.1%
Private Equity	23.0%	7.9%
Real Assets	10.0%	5.1%
Absolute Return	10.0%	2.9%
Leverage	-3.0%	0.1%
	100.0%	

(b) Discount Rate

The discount rate used to measure the total pension liability at June 30, 2021, was 7.40%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will continue to be made at the rates specified in the Charter. Employer contributions were assumed to be made in accordance with the contribution policy in effect for the July 1, 2020, actuarial valuation. While the contributions and measure of actuarial liability in the funding valuation do not anticipate any future Supplemental COLAs, the projected contributions for the determination of the discount rate include the anticipated future amortization payments on future Supplemental COLAs for current members when they are expected to be granted. The projection of benefit payments to current members for determining the discount rate includes the payment of anticipated future Supplemental COLAs.

As of June 30, 2021, the System's fiduciary net position was projected to be available to make all projected future benefit payments for current members. Projected benefit payments are discounted at the long-term expected return on assets of 7.40% to the extent the fiduciary net position is available to make the payments and at the municipal bond rate of 2.16% to the extent that they are not available. The single equivalent percentage rate used to determine the total pension liability as of June 30, 2021, rounded to two decimals is 7.40%.

The municipal bond rate of 2.16% used to determine the above discount rate represents the yield available at June 24, 2021 on the Bond Buyer 20-Bond GO Index.

(c) Sensitivity of the net pension liability to changes in the discount rate

The following presents the net pension liability/(asset), calculated using the discount rate of 7.40%, as well as what the total net pension liability would be if it were calculated using a discount rate that is one percentage-point lower (6.40%) or one -percentage-point higher (8.40%) than the current rate:

Sensitivity of the net pension liability to changes in the discount rate
(Dollars in thousands)

	Net Pension Liability/(Asset) June 30, 2021
1% Decrease	$ 1,722,874
Current Discount Rate	$ (2,585,069)
1% Increase	$ (6,141,630)

(d) Money Weighted Rate of Return

For the year ended June 30, 2021, the annual money-weighted rate of return on pension plan investments, net of investment expenses, adjusted for the changing amounts actually invested, was 35.45%.

(11) Postemployment Healthcare Plan

(a) Other Postemployment Benefits (OPEB)

The Retirement System participates in the City's multiple-employer defined benefit other postemployment benefits plan (the OPEB Plan). The OPEB Plan is maintained by the City and is administered through the City's Health Service System. It provides postemployment medical, dental and vision insurance benefits to eligible employees, retired employees, surviving spouses, and domestic partners. Health benefit provisions are established and may be amended through negotiations between the City and the respective bargaining units. The City does not issue a separate report on its other postemployment benefit plan.

GASB Statement No. 75 requires that reported results must pertain to liability and asset information within certain defined timeframes. For this report, the following timeframes are used.

San Francisco Health Service System Retiree Plan – Multiple-Employer

San Francisco Health Service System Retiree Plan – Agent Multiple-Employer	
Valuation Date (VD)	June 30, 2020
Measurement Date (MD)	June 30, 2020
Measurement Period (MP)	July 1, 2019 to June 30, 2020

The Retirement System's proportionate share percentage of the OPEB Plan was determined based on its percentage of citywide "pay-as-you-go" contributions for the year ended June 30, 2020. The Retirement System's net OPEB liability, deferred outflows/inflows of resources related to OPEB, amortization of deferred outflows/inflows and OPEB expense to each department is based on the Retirement System's allocated percentage. The Retirement System's proportionate share of the City's OPEB elements was 0.31% as of the measurement date.

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in Collective Net Pension Liability/(Asset)

(Dollars in thousands)

Year ended June 30	2021	2020	2019	2018
Total pension liability				
Service cost	$ 718,771	$ 704,637	$ 675,065	$ 632,118
Interest	2,302,075	2,230,441	2,131,847	2,041,110
Changes of benefit terms	-	-	-	-
Differences between expected and actual experience	136,097	205,869	12,484	(42,382)
Changes of assumptions	(479,435)	(117,141)	351,902	170,699
Benefit payments, including refunds of member contributions	(1,619,761)	(1,548,077)	(1,456,682)	(1,364,587)
Net change in total pension liability	**1,057,747**	**1,475,729**	**1,714,616**	**1,436,958**
Total pension liability—beginning	**32,031,018**	**30,555,289**	**28,840,673**	**27,403,715**
Total pension liability—ending, (a)	**33,088,765**	**32,031,018**	**30,555,289**	**28,840,673**
Plan fiduciary net position				
Contributions—member	409,398	400,649	380,980	364,696
Contributions—employer	836,559	742,985	645,056	619,067
Net investment income	9,447,669	966,282	1,970,312	2,549,674
Benefit payments, including refunds of member contributions	(1,619,761)	(1,548,077)	(1,456,682)	(1,364,587)
Administrative expenses	(20,249)	(20,270)	(18,983)	(18,238)
Net change in plan fiduciary net position	**9,053,616**	**541,569**	**1,520,683**	**2,150,612**
Plan fiduciary net position—beginning				
Beginning of year (as reported)	26,620,218	26,078,649	24,557,966	22,410,350
Restatement due to adoption of GASB 75	-	-	-	(2,996)
Beginning of year (as restated)	**26,620,218**	**26,078,649**	**24,557,966**	**22,407,354**
Plan fiduciary net position—ending, (b)	**35,673,834**	**26,620,218**	**26,078,649**	**24,557,966**
Net pension liability/(asset)—ending, (a) – (b)	**$ (2,585,069)**	**$ 5,410,800**	**$ 4,476,640**	**$ 4,282,707**

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

Schedule of Changes in Collective Net Pension Liability/(Asset) (continue)
(Dollars in thousands)

Year ended June 30	2017	2016	2015	2014
Total pension liability				
Service cost	$ 644,277	$ 567,576	$ 523,644	$ 509,200
Interest	1,924,206	1,669,996	1,621,582	1,542,266
Changes of benefit terms	-	1,293,714	-	-
Differences between expected and actual experience	57,911	(119,270)	(197,981)	0
Changes of assumptions	88,180	1,087,309	216,845	(73,315)
Benefit payments, including refunds of member contributions	(1,278,140)	(1,256,146)	(1,131,030)	(1,072,526)
Net change in total pension liability	**1,436,434**	**3,243,179**	**1,033,060**	**905,625**
Total pension liability—beginning	**25,967,281**	**22,724,102**	**21,691,042**	**20,785,417**
Total pension liability—ending, (a)	**27,403,715**	**25,967,281**	**22,724,102**	**21,691,042**
Plan fiduciary net position				
Contributions—member	316,844	322,764	301,682	289,020
Contributions—employer	551,809	526,805	592,643	532,882
Net investment income	2,683,468	150,190	763,429	3,175,431
Benefit payments, including refunds of member contributions	(1,278,140)	(1,256,146)	(1,131,030)	(1,072,526)
Administrative expenses	(18,134)	(17,179)	(19,262)	(15,745)
Net change in plan fiduciary net position	**2,255,847**	**(273,566)**	**507,462**	**2,909,062**
Plan fiduciary net position—beginning				
Beginning of year (as reported)	20,154,503	20,428,069	19,920,607	17,011,545
Restatement due to adoption of GASB 75	-	-	-	-
Beginning of year (as restated)	**20,154,503**	**20,428,069**	**19,920,607**	**17,011,545**
Plan fiduciary net position—ending, (b)	**22,410,350**	**20,154,503**	**20,428,069**	**19,920,607**
Net pension liability—ending, (a) – (b)	**$ 4,993,365**	**$ 5,812,778**	**$ 2,296,033**	**$ 1,770,435**

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

Schedule of Collective Net Pension Liability

(Dollars in thousands)

	6/30/2021	6/30/2020	6/30/2019	6/30/2018
Total pension liability	$ 33,088,765	$ 32,031,018	$ 30,555,289	$ 28,840,673
Plan fiduciary net position	(35,673,834)	(26,620,218)	(26,078,649)	(24,557,966)
Net pension liability/(asset) - end of year (a) - (b)	$ (2,585,069)	$ 5,410,800	$ 4,476,640	$ 4,282,707
Plan fiduciary net position as a percentage of the total pension liability	107.8%	83.1%	85.3%	85.2%
Covered employee payroll	$ 3,623,898	$ 3,566,991	$ 3,375,447	$ 3,221,544
Net pension liability/(asset) as a percentage of covered-employee payroll	-71.3%	151.7%	132.6%	132.9%

	6/30/2017	6/30/2016	6/30/2015	6/30/2014
Total pension liability	$ 27,403,715	$ 25,967,281	$ 22,724,102	$ 21,691,042
Plan fiduciary net position	(22,410,350)	(20,154,503)	(20,428,069)	(19,920,607)
Net pension liability	$ 4,993,365	$ 5,812,778	$ 2,296,033	$ 1,770,435
Plan fiduciary net position as a percentage of the total pension liability	81.8%	77.6%	89.9%	91.8%
Covered employee payroll	$ 3,041,818	$ 2,836,498	$ 2,642,752	$ 2,507,162
Net pension liability as a percentage of covered-employee payroll	164.2%	204.9%	86.9%	70.6%

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

Schedule of Employer Contributions

(Dollars in thousands)

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
2012	410,797	410,797	-	2,360,413*	17.4%
2013	442,870	442,870	-	2,448,734	18.1%
2014	532,882	532,882	-	2,507,162	21.3%
2015	592,643	592,643	-	2,642,752	22.4%
2016	526,805	526,805	-	2,836,498	18.6%
2017	551,809	551,809	-	3,041,818	18.1%
2018	619,067	619,067	-	3,221,544	19.2%
2019	645,056	645,056	-	3,375,447	19.1%
2020	742,985	742,985	-	3,566,991	20.8%
2021	836,559	836,559	-	3,623,898	23.1%

* Covered compensation from actuarial projection.

Schedule of Money-Weighted Rate of Return

Year Ended June 30	Money-Weighted Rate of Return
2012	0.81%
2013	13.91%
2014	19.10%
2015	4.03%
2016	0.96%
2017	13.52%
2018	11.55%
2019	8.19%
2020	3.86%
2021	35.45%

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

Note to Schedules of Changes in Collective Net Pension Liability and Schedules of Collective Net Pension Liability

The total pension liability contained in the schedules was determined by the Retirement System's actuary, Cheiron, Inc. The collective net pension liability is measured as the total pension liability less the amount of the fiduciary net position of the Retirement System.

A summary of assumptions may be found in Note 10 to the financial statements. A complete description of methods and assumptions may be found in the Retirement System's GASB 67/68 Report for the corresponding fiscal years. The discount rates were as follows:

Year Ended June 30	Discount Rate for Total Pension Liability
2021	7.40%
2020	7.40%
2019	7.40%
2018	7.50%
2017	7.50%
2016	7.50%
2015	7.46%
2014	7.58%
2013	7.52%

Note to Schedule of Employer Contributions

Actuarially determined contribution rates are calculated based on the actuarial valuation one year prior to the beginning of the fiscal year in which contributions are reported. Assumptions used to determine contribution rates are:

Year Ended June 30	Valuation Date	Investment return	Salary Increase/ Amortization Growth	Mortality	Change in Funding Methods or Assumption from Prior Year
2012	7/1/2010	7.75%	4.00%	RP2000 Mortality projected with Scale AA	Wage inflation and demographic assumptions including salary merit increases based upon experience study
2013	7/1/2011	7.66%	3.91%	RP2000 Mortality projected with Scale AA	Investment return and wage inflation assumptions
2014	7/1/2012	7.58%	3.83%	RP2000 Mortality projected with Scale AA	Investment return and wage inflation assumptions
2015	7/1/2013	7.58%	3.83%	RP2000 Mortality projected with Scale AA	None
2016	7/1/2014	7.50%	3.75%	RP2000 Mortality projected with Scale AA	Investment return and wage inflation assumptions
2017	7/1/2015	7.50%	3.75%	Adj. 2009 CalPERS Mortality Tables projected generationally with mod. MP-2015	Demographic assumptions including rates of retirement, termination, refund, disability and mortality and salary merit based upon experience study
2018	7/1/2016	7.50%	3.75%	Adj. 2009 CalPERS Mortality Tables projected generationally with mod. MP-2015	None
2019	7/1/2017	7.50%	3.50%	Adj. 2009 CalPERS Mortality Tables projected generationally with mod. MP-2015	Wage inflation assumption
2020	7/1/2018	7.40%	3.50%	Adj. 2009 CalPERS Mortality Tables projected generationally with mod. MP-2015	Discount rate
2021	7/1/2019	7.40%	3.50%	Adj. 2009 CalPERS Mortality Tables projected generationally with mod. MP-2015	None

Complete descriptions of the methods and assumptions used to determine contribution rates can be found in the corresponding actuarial valuation reports.

Salary increase assumptions in above table are shown before the addition of merit components based upon employee classification and years of service.

Summaries of plan provisions used in each valuation can be found in each applicable actuarial valuation report.

OTHER SUPPLEMENTARY INFORMATION

Comparison of Contributions

Employer Contributions
(Dollars in thousands)

Member Plan	Plan Year 2020-21	Plan Year 2019-20	Plan Year 2018-19
Miscellaneous Plans	$ 709,918	$ 630,730	$ 548,319
Police Plans	73,398	65,059	55,533
Firefighter Plans	53,243	47,196	41,204
Total	$ 836,559	$ 742,985	$ 645,056

Employee Contributions
(Dollars in thousands)

Member Plan	Plan Year 2020-21	Plan Year 2019-20	Plan Year 2018-19
Miscellaneous Plans	$ 338,135	$ 330,197	$ 315,059
Police Plans	42,304	41,514	38,418
Firefighter Plans	28,959	28,938	27,503
Total	$ 409,398	$ 400,649	$ 380,980

Pension Fund Net Investment Income

Fiscal Year 2020-21
(Dollars in thousands)

	Income[1]	Realized Gain/Loss	Unrealized Gain/Loss	Total
Interest Earned	$ 50,520	$ -	$ -	$ 50,520
Dividends Earned	84,514	-	-	84,514
Net Appreciation in Fair Value of Investments:				
Recaptured Commission Income	9	-	-	9
Short-term Securities	-	847	(245)	602
Equities	-	870,424	2,977,232	3,847,656
Debt Securities	-	64,342	(7,110)	57,232
Real Assets	72,408	77,643	433,157	583,208
Private Credit	71,771	56,874	144,107	272,752
Private Equities	(85,177)	727,791	3,448,040	4,090,654
Absolute Returns	-	-	457,077	457,077
Other Assets	-	(13,665)	76,483	62,818
Securities Lending Income - Net	2,632	-	326	2,958
Investment Expenses	(62,331)	-	-	(62,331)
Total Net Investment Income (including Net Appreciation)	**$ 134,346**	**$ 1,784,256**	**$ 7,529,067**	**$ 9,447,669**

1 Total investment income excludes employee and employer contributions.

Pension Fund Disbursements
Plan Year 2020-21
(Dollars in thousands)

Payments/Expenses	Amount
Service Retirement Payments	$ 1,272,492
Disability Retirement Payments	204,831
Cost of Living Adjustments	110,646
Death Allowance Payments	4,742
Death Benefits	3,222
Retired Annuitant Rolls (Option 1 Death Benefit)	3,574
DROP Program Accrued Retirement Benefits	0
Refunds of Contributions – Death Benefits	5,968
Refunds of Contributions – Other than Death Benefits	14,286
Administrative Expenses: Retirement Services/Administration	20,249
Total Payments & Expenses, FY 2020-21	$ 1,640,010
Total Payments & Expenses, FY 2019-20	$ 1,568,347
Increase from FY 2019-20	$ 71,663

Comparison of Actual Administrative Expenditures

Retirement Services & Administration Divisions
(Dollars in thousands)

Description of Expenditures	2020-21	2019-20	2018-19
Personnel Services	$14,277	$ 13,125	$ 11,667
Equipment Purchase	0	0	0
Materials and Supplies	127	121	38
Services of Other Departments	3,999	3,763	3,689
Other Services	1,846	3,261	3,589
Total	**$20,249**	**$ 20,270**	**$ 18,983**

Investment Division
(Dollars in thousands)

Description of Expenditures	2020-21	2019-20	2018-19
Personnel Services	$ 8,235	$ 8,024	$ 6,973
Equipment Purchase	0	0	0
Materials and Supplies	9	32	2
Services of Other Departments	2,618	3,038	3,627
Recaptured Commission Expense	1,577	1,471	1,670
Other Services	49,892	34,106	36,168
Total	**$ 62,331**	**$ 46,671**	**$ 48,440**

INVESTMENT SECTION

STATEMENT FROM THE CHIEF INVESTMENT OFFICER

1 - Overview

For the Fiscal Year 2021, the investment portfolio of the San Francisco Employees Retirement System generated a return of 33.70%, the highest fiscal year return in the Trust's history. All asset classes produced positive returns for the period led by Private Equity, Public Equity, and Private Credit which returned 67.45%, 43.75%, and 18.74%, respectively. These returns bring SFERS' assets to $34.5 billion, up $8.5 billion from the previous fiscal year. Importantly, this growth has led to a funded status of approximately 112%, the first time SFERS has been fully funded since 2008.

2 - Asset Allocation

In November 2020, the Retirement Board approved a new strategic asset allocation policy summarized in Table 1.

Table 1 - Strategic Asset Allocation	
Public Equity	37%
Private Equity	23%
Growth Assets	**60%**
Real Assets	10%
Absolute Return	10%
Diversifying Assets	**20%**
Private Credit	10%
Fixed Income	13%
Income Assets	**23%**

The new asset allocation policy reflects the Retirements Board's return objective, risk tolerance, time horizon, and the expected liquidity demands from the Trust. Notably, the asset allocation policy shown above includes a meaningful increase in Growth Assets (Public and Private Equity), a meaningful decrease in Diversifying Assets (Real Assets and Absolute Return), along with the introduction of portfolio leverage (3%).

SFERS' actual asset allocation as of June 30, 2021 is found in the Appendix.

3 - Investment Performance

This section highlights SFERS investment returns on an absolute basis and compared to our peers. Our peer universe is public pension plans with assets over $1 billion. All returns are annualized and net of fees.

Total Plan Returns

For the fiscal year ended June 30, 2021, SFERS' investments returned 33.70%, outperforming the median return of our peer universe of 26.97%. Table 2 shows that SFERS' returns consistently rank near the top of our peer group over the past 3-, 5-, 10-, and 20-year periods. Table 3 show the results of SFERS' individual asset class portfolios.

Table 2 - Total Fund Returns for Periods Ending June 30, 2021

Total Fund	SFERS (%)	Peer Median (%)*	Value Added (%)	Rank (%)	No. of Peers
1 Year	33.70	26.97	6.73	1	77
3 Years	13.98	10.58	3.40	2	77
5 Years	13.38	10.54	2.84	2	77
10 Years	10.41	8.18	2.23	2	72
20 Years	8.19	6.85	1.34	1	56

*InvMetrics Public Defined Benefit > $1 billion Net
Source: BNY Mellon for SFERS returns; NEPC for median peer returns and rankings.

Table 3 - SFERS Investment Performance for Periods Ending June 30, 2021

Description	1 Year Return (%)	Rank	3 Years Return (%)	Rank	5 Years Return (%)	Rank	10 Years Return (%)	Rank	20 Years Return (%)	Rank
Total Fund	33.70		13.98		13.38		10.41		8.19	
Peer Median	26.97	1	10.58	2	10.54	2	8.18	2	6.85	1
Value Added vs Peers	6.73		3.40		2.84		2.23		1.34	
Public Equity	43.75		17.89		17.26		11.68		8.14	
Peer Median	41.81	15	14.04	1	14.61	1	10.29	1	7.40	9
Value Added vs Peers	1.94		3.85		2.65		1.39		0.74	
Private Equity	67.45		28.13		23.11		17.47		13.34	
Peer Median	45.58	3	17.92	6	16.39	16	13.29	18	8.01	1
Value Added vs Peers	21.87		10.21		6.72		4.18		5.33	
Real Assets	9.59		4.20		8.36		11.15		7.77	
Peer Median	17.42	84	6.09	61	5.35	10	5.17	1	N/A	
Value Added vs Peers	-7.83		-1.89		3.01		5.98		N/A	
Absolute Return	14.14		4.41							
Peer Median	17.38	71	6.56	78						
Value Added vs Peers	-3.24		-2.15							
Private Credit	18.74		9.39		11.19		10.69			
Peer Median	17.60	48	7.61	15	7.08	13	8.31	10		
Value Added vs Peers	1.14		1.78		4.11		2.38			
Fixed Income	3.05		4.83		3.44		4.25		5.48	
Peer Median	5.42	86	6.07	93	4.85	91	4.33	54	5.50	52
Value Added vs Peers	-2.37		-1.24		-1.41		-0.08		-0.02	

Source: BNY Mellon for SFERS returns; NEPC for median peer returns and rankings.
Notes: Peer universe for Real Assets is the InvMetrics Total Funds Public and Private Real Estate Universes. Peer Universe for Private Equity is the InvMetrics Total Funds Private Equity Universe. Peer Universe for Private Credit is the InvMetrics All DB Plans greater than $1.0 bn Fixed Income Universe. Peer universe for all other asset classes and the Total Fund are their respective universes within the InvMetrics All DB Plans greater than $1.0 bn group

ASSET CLASS RETURNS

Public Equity

The objectives of SFERS' Public Equity Portfolio are to provide long-term growth and capital appreciation and to be a source of liquidity for the Trust. Over the past several years, SFERS has sought to increase the excess returns in our Public Equity portfolio by investing with specialized managers with unique, significant, and sustainable competitive advantages. These specialist managers have an emphasis on technology, healthcare/biotech, China, and sustainability. Except for healthcare, each of these allocations have added value over the last 1, 3, and 5 years. Healthcare has added value over the long-term, but the overweight detracted slightly in the most recent fiscal year. Although healthcare had strong absolute returns, it slightly underperformed as some value sectors such as financials and energy rallied strongly from market lows caused by the massive dislocation from the pandemic in early 2020. These sectors face significant headwinds and SFERS expects them to underperform over the long-term.

As shown in Table 4, the results of this transformation have been strong. In the fiscal year ended June 30, 2021, SFERS' Public Equity Portfolio returned 43.75% and has produced peer-leading results over the past several years.

Table 4 - Public Equity Returns for Periods Ending June 30, 2021

Public Equity	SFERS (%)	Peer Median (%)*	Value Added (%)	Rank (%)
1 Year	43.75	41.81	1.94	15
3 Years	17.89	14.04	3.85	1
5 Years	17.26	14.61	2.65	1
10 Years	11.68	10.29	1.39	1
20 Years	8.14	7.40	0.74	9

*Peer group is the InvMetrics Public Defined Benefit > $1 billion Public Equity

Private Equity

The role of Private Equity is to provide high long-term returns and superior risk-adjusted returns than Public Equity. Private Equity primarily consists of buyouts, venture capital, and growth capital. Additional strategies include special situations, co-investments and secondary transactions.

Similar to our efforts in Public Equity, we have evolved the Private Equity portfolio from large, generalist managers to managers with unique, niche, or specialist skill. The Private Equity portfolio has meaningful tilts to Venture/Growth, Technology, and Asia. These overweights led to extraordinary results in the fiscal year ended June 30, 2021. Our Private Equity portfolio returned 67.45%, outperforming the median peer return by 21.87%. Longer term, SFERS has been rewarded with double digit returns, substantially outperforming peer medians over the past 5-, 10- and 20-year periods.

The Private Equity portfolio's performance in the current fiscal year underscores the fact that private equity returns tend to be cyclical. While our portfolio enjoyed a strong year of liquidity and valuation increases, the seeds of current outperformance were planted five to ten years ago through careful manager selection and portfolio construction. For this reason, a long-time horizon is critical in private equity investing.

Table 5 - Private Equity Returns for Periods Ending June 30, 2021				
Private Equity	SFERS (%)	Peer Median (%)*	Value Added (%)	Rank (%)
1 Year	67.45	45.58	21.87	3
3 Years	28.13	17.92	10.21	6
5 Years	23.11	16.39	6.72	16
10 Years	17.47	13.29	4.18	18
20 Years	13.34	8.01	5.33	1

*Peer group is the InvMetrics Public Defined Benefit > $1 billion Private Equity

Real Assets

The role of Real Assets is to provide strong returns, enhance diversification, and inflation protection. SFERS' Real Assets portfolio is divided between two distinct sub-components, Real Estate and Natural Resources.

For the fiscal year ended June 30, 2021, our Real Assets Portfolio returned 9.59%, underperforming the median peer by 7.83%. Underperformance during the fiscal year was primarily due to several idiosyncratic factors across SFERS' core real estate and metals & mining investments. This stated, over longer time periods, our Real Assets portfolio has posted strong returns, substantially outperforming peer medians over the past 5- and 10-year periods.

Table 6 - Real Assets Returns for Periods Ending June 30, 2021				
Real Assets	SFERS (%)	Peer Median (%)*	Value Added (%)	Rank (%)
1 Year	9.59	17.42	-7.83	84
3 Years	4.20	6.09	-1.89	61
5 Years	8.36	5.35	3.01	10
10 Years	11.15	5.17	5.98	1
20 Years	7.77	N/A	N/A	N/A

*Peer group is the InvMetrics Public Defined Benefit > $1 billion Real Assets/Commodities

Absolute Return

The role of Absolute Return is to meaningfully outperform when stocks experience a large loss, outperform bonds, provide better liquidity than private investments, incur low systematic risk to the market, and post high risk-adjusted returns. Overall, its role is to reduce total portfolio volatility and provide more steady returns.

For the fiscal year ended June 30, 2021, SFERS' Absolute Return portfolio gained 14.14%, underperforming our median peer return of 17.38%. Although attractive on an absolute basis, our fiscal year return relative to peers was negatively impacted by equity-oriented strategies. These strategies are core allocations within SFERS' Absolute Return portfolio and have contributed positively since inception. Since the inception of the program in October 2016, SFERS' Absolute Return portfolio has lagged its peers, primarily due to COVID-19 market related stress in March 2020.

Table 7 - Absolute Return Returns for Periods Ending June 30, 2021				
Absolute Return	SFERS (%)	Peer Median (%)*	Value Added (%)	Rank (%)
1 Year	14.14	17.38	-3.24	71
3 Years	4.41	6.56	-2.15	78
3.75 Years**	5.14	5.84	-0.70	66

*Peer group is the InvMetrics Public Defined Benefit > $1 billion Hedge Funds **Since inception

Private Credit

The objectives of SFERS' Private Credit portfolio are to generate returns that are superior to Liquid Credit while providing both downside protection and diversification to the Trust. The portfolio emphasizes current income over capital appreciation with a focus on senior debt strategies complemented by allocations to junior debt, distressed, specialty finance, and other opportunistic strategies. For the fiscal year ended June 30, 2021, SFERS Private Credit portfolio returned 18.74%, outperforming the median peer return of by 1.14%

Table 8 - Private Credit Returns for Periods Ending June 30, 2021

Private Credit	SFERS (%)	Peer Median (%)*	Value Added (%)	Rank (%)
1 Year	18.74	17.60	1.14	48
3 Years	9.39	7.61	1.78	15
5 Years	11.19	7.08	4.11	13
10 Years	10.69	8.31	2.38	10

*Peer group is the NEPC Defined Benefit Private Credit

Fixed Income

The objectives of SFERS' Fixed Income portfolio are to provide liquidity, diversification, capital preservation, and income. In 2018, SFERS' Public Fixed Income portfolio was divided between two sub-components, Treasuries and Liquid Credit. As of June 30, 2021, these two sub-components represented 54% and 46% of the Fixed Income portfolio, respectively.

The Treasury allocation is viewed as the primary source of liquidity for the Trust in the event of a market dislocation. This portfolio is passively managed thus not a source of outperformance. While it has kept pace with its benchmark, in recent years it has underperformed other fixed income strategies given the historically low interest rate environment.

The Liquid Credit portfolio is viewed as a secondary source of liquidity for the Trust with a dual mandate of seeking excess returns. The Liquid Credit portfolio's allocations to the higher yielding portions of the public fixed income market (high yield bonds, bank loans and emerging market debt) have drove strong fiscal-year returns.

Table 9 - Fixed Income Returns for Periods Ending June 30, 2021

Fixed Income	SFERS (%)	Peer Median (%)*	Value Added (%)	Rank (%)
1 Year	3.05	5.42	-2.37	86
3 Years	4.83	6.07	-1.24	93
5 Years	3.44	4.85	-1.41	91
10 Years	4.25	4.33	-0.08	54
20 Years	5.48	5.5	-0.02	52

*Peer group is the InvMetrics Public Defined Benefit > $1 billion Fixed Income

Table 9a - Treasuries Returns for Periods Ending June 30, 2021				
Treasuries	SFERS (%)	Peer Median (%)*	Value Added (%)	Rank (%)
1 Year	-1.13	3.09	-4.22	96
3 Years	4.01	5.56	-1.55	99

*Peer group is the InvMetrics Public Defined Benefit > $1 billion US Fixed Income

Table 9b - Liquid Credit Returns for Periods Ending June 30, 2021				
Liquid Credit	SFERS (%)	Peer Median (%)*	Value Added (%)	Rank (%)
1 Year	8.42	5.42	3.00	21
3 Years	6.09	6.07	0.02	48

*Peer group is the InvMetrics Public Defined Benefit > $1 billion US Fixed Income

4 - Performance Analysis

Fiscal Year 2020-2021

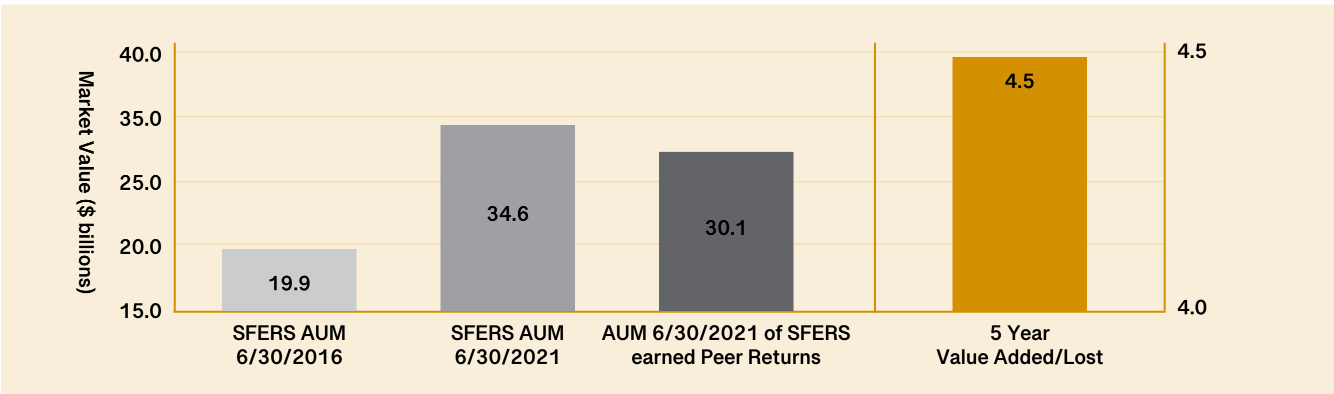
Following a year of unprecedented market volatility and swift stimulative actions by central banks and governments globally, the 2020-2021 fiscal year saw a remarkable recovery in most capital markets. The first quarter of the fiscal year was marked by economic uncertainty and heighted volatility. But, continued monetary and fiscal stimulus combined with positive vaccine news, led to expectations for a pre-pandemic return to normalcy fueling an extraordinary recovery that persisted through the end of the fiscal year.

With this as a backdrop, SFERS investments returned 33.70% this past year versus our peers' median return of 26.97%, an outperformance of 6.37%, ranking in the top 1% compared to our peer universe. Our excess returns were generated by thoughtful portfolio construction and strong manager selection across the portfolio, as all asset classes produced positive returns. Returns for the period were led by Private Equity, Public Equity, and Private Credit which returned 67.45%, 43.75%, and 18.74%, respectively.

The Past Five Years

As shown earlier in Tables 2, over the past five years, SFERS has generated annualized returns of 13.38% while our median peer returned 10.54%. In terms of dollars, our returns the past five years have added $4.5 billion in value compared to if SFERS had earned the median return of our peers. In other words, if SFERS had earned the median peer return the past five years, our assets at fiscal year-end would have totaled just $30.1 billion.

Chart 1 – Value Added: 5 Years Ended June 30, 2021



Notes: Peer universe represented by InvMetrics universe of Public Defined Benefit Plans with more than $1 billion in assets. "Assuming Peer Return" Market Value adjusted for SFERS' net flows.

In addition to evaluating our performance versus other defined benefit plans, another way to measure our returns is versus a passive portfolio consisting of 60% global public equity and 40% U.S. bonds. As shown in Table 10, over the past five and ten years SFERS has outperformed a 60/40 portfolio by 3.86% and 3.71% annualized, respectively.

Table 10 - SFERS Value Added v. 60% Stocks and 40% Bonds

	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	30 Years
SFERS Total Fund	33.70	13.98	13.38	10.41	8.30	8.18	9.36
60/40 Benchmark*	23.58	10.32	9.52	6.70	6.31	6.79	7.72
Outperformance	10.12	3.66	3.86	3.71	1.99	1.39	1.64

*60/40 benchmark comprises 60% MSCI ACWI IMI (Net) and 40% FTSE WGBI. Prior to June 1994, S&P 500 is used instead of MSCI ACWI IMI.

Risk-Adjusted Returns

In addition to evaluating our performance on a total return basis and versus our peers, SFERS evaluates our returns relative to the risk taken. Three common measures of risk and risk-adjusted returns are Standard Deviation, the Sharpe Ratio, and the Sortino Ratio.

Standard Deviation calculates the volatility of returns, with lower rankings indicating less volatility and less risk. The Sharpe Ratio measures risk-adjusted returns, with higher ranks reflecting higher returns in relation to the amount of risk incurred. The Sortino Ratio evaluates an investor's risk-adjusted returns in down markets, with higher rankings indicating better returns in down markets.

SFERS high returns versus peers has been generated while also taking lower risk. Our Standard Deviation over the past 3 and 5 years ranks in the lowest 6% and lowest 7%, respectively.

SFERS has also generated high risk-adjusted returns, as measured by Sharpe and Sortino Ratios, both of which rank in the top 2% over the past 3 and 5 years.

Table 11 - Risk-Adjusted Returns 3 Years Ending June 30, 2021						
	Standard Deviation	Rank (%)	Sharpe Ratio	Rank (%)	Sharpe Ratio	Rank (%)
SFERS Total Fund	7.87	6	1.62	2	1.97	2
Policy Benchmark	10.24	39	0.95	34	1.30	23
Peer Median*	10.72	50	0.88	50	1.07	50

*Current Policy Benchmark: 37% Total Equity Policy Index, 6% BBg Barclays Intermediate US Treasury Index, 5% BBg Barclays Capital US Agg Index, 5% (50% BofA ML US HY BB-B & 50% Credit Suisse Leveraged Loan Index) + 150bps, 12% Real Assets Policy, 23% Alternative Investments Policy, and 12% 90 Day T-Bill +5%.

** Peer group is the InvMetrics Public Defined Benefit > $1 billion Net

Table 12 - Risk-Adjusted Returns 5 Years Ending June 30, 2021						
	Standard Deviation	Rank (%)	Sharpe Ratio	Rank (%)	Sharpe Ratio	Rank (%)
SFERS Total Fund	6.44	7	1.90	2	2.15	2
Policy Benchmark	8.31	40	1.21	30	1.45	20
Peer Median*	8.72	50	1.07	50	1.18	50

*Current Policy Benchmark: 37% Total Equity Policy Index, 6% BBg Barclays Intermediate US Treasury Index, 5% BBg Barclays Capital US Agg Index, 5% (50% BofA ML US HY BB-B & 50% Credit Suisse Leveraged Loan Index) + 150bps, 12% Real Assets Policy, 23% Alternative Investments Policy, and 12% 90 Day T-Bill +5%.

** Peer group is the InvMetrics Public Defined Benefit > $1 billion Net

We also evaluate our risk-adjusted performance versus a hypothetical 60/40 allocation of global stocks and U.S. bonds. As shown in Table 13, over the past three years SFERS has incurred 31% less volatility than a 60/40 portfolio and while generating about twice the risk-adjusted returns. Table 14 shows that over the past five years SFERS has experienced 32% less volatility and again produced about twice the risk-adjusted returns compared to a 60/40 portfolio.

Table 13 - Risk-Adjusted Returns 3 Years Ending June 30, 2021

	Standard Deviation	Sharpe Ratio	Sortino Ratio
SFERS Total Fund	7.87	1.62	1.97
Policy Benchmark	10.24	0.95	1.30
60/40 Benchmark*	11.48	0.79	1.11
SFERS v. 60/40	7.87	1.62	1.97

*Current Policy Benchmark: 37% Total Equity Policy Index, 6% BBg Barclays Intermediate US Treasury Index, 5% BBg Barclays Capital US Agg Index, 5% (50% BofA ML US HY BB-B & 50% Credit Suisse Leveraged Loan Index) + 150bps, 12% Real Assets Policy, 23% Alternative Investments Policy, and 12% 90 Day T-Bill +5%.

**60/40 benchmark comprises 60% MSCI ACWI IMI (Net) and 40% FTSE WGBI

Table 14 - Risk-Adjusted Returns 5 Years Ending June 30, 2021

	Standard Deviation	Sharpe Ratio	Sortino Ratio
SFERS Total Fund	6.44	1.90	2.15
Policy Benchmark	8.31	1.21	1.45
60/40 Benchmark*	9.47	0.89	1.22
SFERS v. 60/40	6.44	1.90	2.15

*Current Policy Benchmark: 37% Total Equity Policy Index, 6% BBg Barclays Intermediate US Treasury Index, 5% BBg Barclays Capital US Agg Index, 5% (50% BofA ML US HY BB-B & 50% Credit Suisse Leveraged Loan Index) + 150bps, 12% Real Assets Policy, 23% Alternative Investments Policy, and 12% 90 Day T-Bill +5%.

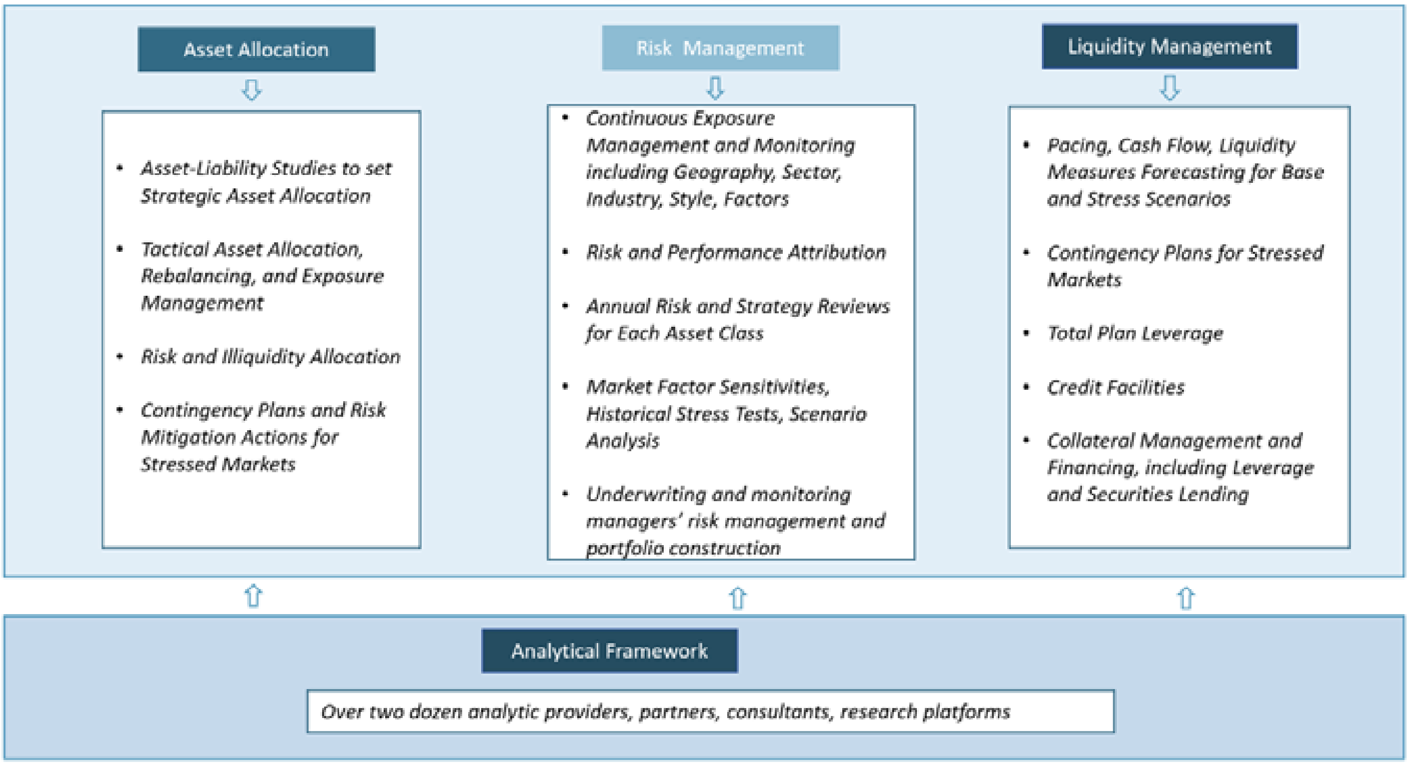
**60/40 benchmark comprises 60% MSCI ACWI IMI (Net) and 40% FTSE WGBI

5 - Investment Strategy

To meet our return objectives of earning high long-term returns and reducing the impact caused by a potential large short-term market decline, SFERS has a differentiated investment strategy in both asset allocation, risk management, and manager selection.

Asset Allocation and Risk Management

SFERS' asset allocation and risk management framework consist of three elements:



Asset Allocation

One of the key elements of SFERS' investment strategy is to set asset allocation policy in a manner that encompasses a strategic, long-term perspective of the capital markets, the nature and structure of SFERS' liabilities as well as the impact on employee and employer contributions. SFERS recognizes that a strategic long-term asset allocation implemented in a consistent and disciplined manner is the primary determinant of the Trust's risk and return. SFERS, in collaboration with Retirement Board's investment consultant, conducts an extensive Asset-Liability Study (ALS) every three years.

Fiscal year 2020-2021 was the most recent year that SFERS conducted this extensive ALS review and set a new strategic asset allocation. As part of this process, SFERS Staff conducted a risk assessment for the Retirement Board, discussed multiple asset-liability scenarios, and introduced important investment concepts such as leverage, financing, long-horizon liquidity management, Global Tactical Asset Allocation, and contingency planning.

In November 2020, the Board approved a revised strategic asset allocation that increased the Trust's risk profile, recognizing current capital markets' lower return potential. Specifically, SFERS increased its target allocation to public equities from 31% to 37% and to private equities from 18% to 23%, while reducing allocations to real assets from 17% to 10% and to absolute return from 15% to 10%. The Board also approved 3% Trust-level leverage, allowing for more flexibility to manage liquidity and rebalancing.

Risk Management

SFERS' Staff continuously monitors and manages the Trust's risks, including geographic, sector, industry, and factor exposures. Each asset class undergoes a rigorous risk and strategy review at least annually, covering diverse investment analytics from multiple sources and portfolio construction techniques. Risk management is an integral part of the selection and monitoring of external investment managers. Additionally, a thorough Trust-level risk review is discussed with the Investment Board each year focusing on key risks and performance attribution, as well as sensitivities to various market factors, historical stress tests, and forward-looking scenario analyses.

Liquidity Management

A differentiating feature of SFERS' asset allocation and risk management framework is its focus on liquidity management. As a long-term investor, SFERS relies heavily on harvesting illiquidity risk premium to enhance returns, allocating 43% to illiquid asset classes such as private equity, private credit, and real assets. Staff reviews pacing schedules, cash flow projections, and proprietary liquidity measures to plan for the base case and multiple stressed liquidity scenarios. Asset classes that are considered potential sources of liquidity – public fixed income, public equities, and absolute return – develop plans to raise cash under stressed markets and liquidity. This past fiscal year, Staff introduced two innovations to enhance liquidity management: 1) a credit facility with SFERS' custodian, and 2) Trust-level leverage as part of SFERS' strategic asset allocation.

- **Manager Selection**

  SFERS seeks higher excess returns through manager selection than most of our peers, by emphasizing managers with unique or niche strategies and specialist skill. Our focus on seeking higher excess returns than traditional index approaches reduce our dependence on the markets to provide us with good returns. Our approach toward manager selection is the main reason why SFERS has outperformed our peers even as the volatility of our returns has been considerably less.

- **Environmental, Social and Governance (ESG) Platform**

  SFERS believes that ESG factors can have a material impact on the value of companies and securities, as well as affect the macroeconomic environment more broadly. The consideration of these factors alongside traditional financial factors should, therefore, provide a better understanding of the risk and return characteristics of investments. SFERS, therefore, incorporates ESG factors into its management of the Trust. At all times, ESG factors are considered in a manner that is consistent with the Retirement Board and Staff's fiduciary responsibilities to act in the best interests of the active members, retirees, and beneficiaries of the Retirement System and consistent with SFERS' role as a prudent, long-term investor.

  SFERS' ESG journey began in 1988 when SFERS first adopted Social Investment Policies which eventually evolved into our current ESG Policy. Over the years SFERS has taken steps to divest from tobacco, Sudan, firearms, and thermal coal companies. Beginning in 2017, SFERS began a more integrated and formalized approach to ESG investing. SFERS became a signatory to the Principles for Responsible Investment (PRI) and joined the Ceres Investor Network. The following year SFERS hired its first Director of ESG Investing, dedicated $1 billion to low carbon investing, introduced a Climate Transition Risk Framework, established a partnership with the Thirty Percent Coalition to advocate for specific measures to increase racial and gender diversity on corporate boards, and joined the Climate Action 100+. In March 2020, to address the mounting investment risks related to climate change, SFERS announced the ambition that SFERS' investment portfolio be net zero emissions by 2050.

SFERS acknowledges that the relevance of ESG issues may differ and vary in degree across companies, sectors, regions, asset classes and over time. Therefore, SFERS takes a differentiated and materiality-based approach to integrating ESG considerations into its investment process. SFERS does so by implementing a three-pillar ESG Platform that consists of:

Active Ownership

1. Engagement – Engaging directly with companies in SFERS' underlying portfolio to encourage them to incorporate ESG considerations into their strategy, governance, and operational management.

2. Proxy Voting – Executing proxy votes according to SFERS' Proxy Voting Guidelines and supporting shareholder proposals on material environmental and social topics.

ESG Investment Management

- Manager Due Diligence & Monitoring – Engaging with existing and potential external managers across asset classes to understand their process for incorporating ESG considerations into their investment process.

- Investment – Investing in sustainable strategies across asset classes that meet SFERS' risk and return expectations, including renewable energy, life sciences, and impact investing strategies.

- Divestment – Restricting investment in companies and/or industries that have high, unmitigated investment risks due to ESG factors.

- Analytics, Metrics, and Modeling – Utilizing quantitative and qualitative tools to assess ESG risks and opportunities across the SFERS portfolio.

ESG Collaboration & Communication

- Partnerships – Actively participating in ESG-related investor initiatives such as Principles for Responsible Investment, Ceres Investor Network, Council of Institutional Investors, Thirty Percent Coalition, Taskforce for Climate-related Financial Disclosures, and the Principles for a Responsible Civilian Firearms Industry.

- Reporting – Annually responding to the PRI Framework, providing regular updates to the SFERS Board, and responding to stakeholder inquiries around ESG matters.

In support of its ESG efforts, SFERS maintains a formal set of Environmental, Social, and Governance Investment Policies and Procedures and Proxy Voting Guidelines.

6 - Summary

The objective of the SFERS Trust is to achieve high long-term returns while reducing the impact a large loss in the equity markets would have on our funded status. Staff pursues its dual objectives by:

- Emphasizing an asset allocation that reduces equity market risk and increases diversification,

- Manager selection and co-investments to meaningfully outperform the market return

- Risk management and evaluation of ESG factors to manage portfolio risks and ensure that our pursuit of returns and acceptance of risks are intentional.

Respectfully,

Kurt L. Braitberg
Interim Chief Investment Officer

SUMMARY OF INVESTMENTS & PERFORMANCE

Table 15 - Asset Allocation as of June 30, 2021 and June 30, 2021

	2021		2020	
	Market Value ($thousands)	**Weight (%)**	**Market Value** ($thousands)	**Weight (%)**
Public Equity	13,031,825	37.7	8,979,291	34.7
Private Equity	9,533,064	27.6	5,545,276	21.4
GROWTH ASSETS	**22,564,889**	**65.3**	**14,524,567**	**56.1**
Real Assets	3,995,013	11.6	3,874,050	15.0
Absolute Return	3,662,820	10.6	3,703,261	14.3
DIVERSIFYING ASSETS	**7,657,833**	**22.2**	**7,577,312**	**29.3**
Fixed Income	2,103,425	6.1	1,879,265	7.3
Private Credit	1,775,379	5.1	1,259,996	4.9
INCOME GENERATING ASSETS	**3,878,804**	**11.2**	**646,426**	**2.5**
Cash	436,319	1.3	242,807	0.9
TOTAL INVESTMENT PORTFOLIO	**34,537,845**	**100%**	**25,887,565**	**100.0**

Investment portfolio totals are net of management fees and expenses and therefore do not track to pension net assets reported in SFERS audited financial statements. Source: BNY Mellon.

Table 16 - Investment Performance vs. Benchmarks for periods ending June 30, 2021

Description	1-Year	3-Years	5-Years	10-Years	20-Years
Public Equity	43.75	17.89	17.26	11.68	8.14
Public Equity Policy Benchmark[1]	40.94	14.24	14.55	10.05	7.56
Private Equity	67.45	28.13	23.11	17.47	13.34
Private Equity Policy Benchmark[2]	46.20	19.83	20.13	18.88	13.31
Real Assets	9.59	4.20	8.36	11.15	7.77
Real Assets Policy Benchmark[3]	13.94	0.57	3.59	5.95	7.58
Absolute Return	14.14	4.41			
Absolute Return Policy Benchmark[4]	5.09	6.37			
Fixed Income	3.05	4.83	3.44	4.25	5.48
Fixed Income Policy Benchmark[5]	-0.79	4.63	2.94	3.47	4.68
Private Credit	18.74	9.39	11.19	10.69	
Private Credit Policy Benchmark[6]	14.25	7.46	7.61	7.06	
Cash	0.40	1.38	1.30	0.74	1.52
Total Fund	**33.70**	**13.98**	**13.38**	**10.41**	**8.19**
Total Fund Policy Benchmark[7]	**26.24**	**10.93**	**11.16**	**9.39**	**7.80**

Source: BNY Mellon

1 The current Public Equity Policy (starting 10/1/2012) consists of 100% MSCI ACWI IMI (ND).

2 The current Private Equity Policy (starting 1/1/2018) consists of 25% MSCI ACWI Ex-US (ND) and 75% Russell 3000 plus 300 bps.

3 The current Real Assets Policy (starting 1/1/2018) consists of 50% NCREIF ODCE and 50% Cambridge Associates NR Quarter Lag.

4 The Absolute Return Policy consists of the 90-day Treasury Bill plus 500 bps.

5 The current Fixed Income Policy (starting 7/1/2019) consists of 45% Bloomberg Barclays US Aggregate and 55% Bloomberg Barclays Intermediate Treasury.

6 The Private Credit Policy consists of 50% Bank of America Merrill Lynch US High Yield BB/B Constrained Index and 50% Credit Suisse Leveraged Loan Index plus 150bps.

7 The current SFERS policy benchmark (starting 10/1/2019) consists of 35% Public Equity Policy, 6% Bloomberg Barclays Intermediate US Treasury, 5% Bloomberg Barclays Capital US Aggregate, 4% Private Credit Policy, 17% Real Assets Policy, 18% Private Equity Policy and 15% 90-day Treasury Bill plus 500 bps.

ACTUARIAL SECTION

Actuarial valuations are conducted annually to determine the funding requirements of the Retirement System. San Francisco City Charter specifies that the Retirement Board determines the employer contribution as a normal cost rate plus an amortization of the unfunded actuarial liability over a period not to exceed 20 years. Sponsoring employers are required to contribute 100% of the Board-approved actuarially determined contribution. Member contribution rates are also specified in City Charter.

Actuarial assumptions and methods are adopted by the Retirement Board with input from the consulting actuary. Key economic assumptions are reviewed annually, while demographic assumptions are studied every five years. The current demographic assumptions were adopted at the December 9, 2020 Board meeting for the July 1, 2020 actuarial valuation and are based upon the August 2020 Demographic Experience Study for the period covering July 1, 2014 through June 30, 2019. The study covered rates of retirement, termination, refund, disability, and mortality in addition to merit salary increases, final year salary increases, administrative expenses, and family composition.

A brief summary of the plan provisions may be found in the Notes to the Basic Financial Statements found in the Financial Section. A detailed summary of plan provisions may be found in the July 1, 2020 actuarial funding report issued in June 2021.

The pension plan is a cost-sharing multiple-employer defined benefit pension plan as the plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan. Here the term "cost-sharing" refers to the sharing of costs between the employers: plan assets are pooled and individual employer contributions are not segregated from each other. The Introductory Section contains more details of the Retirement System, the Board, and its members.

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

JULY 1, 2020 ACTUARIAL VALUATION

Actuarial Asset Valuation Method for Funding Policy
The actuarial value of assets is used to determine the employers' contribution to SFERS. The asset adjustment method dampens the volatility in asset values that occur due to fluctuations in market conditions. Use of an asset smoothing method is consistent with the long-term nature of the actuarial valuation process.

The actuarial value is calculated by recognizing 20% of each of the past five years of actual investment returns compared to the expected return (7.40% for the plan years ending 2019-2020 and 7.50% for the years ending 2016 through 2018) on the actuarial asset value. The expected return on actuarial value of assets is determined using actual cash flows and the assumed return. The balance of the actual investment experience is recognized in a similar fashion in future years.

This asset smoothing method started with the market value as of July 1, 2004. The Retirement Board adopted the method upon recommendation from the actuarial audit of 2005.

Actuarial Cost Method

The individual Entry Age Normal actuarial cost method was used for active employees, whereby the normal cost is computed as the level annual percentage of pay required to fund the retirement benefits between each member's date of hire and assumed termination of employment. The normal costs calculated relate only to current member payroll. The actuarial liability is the difference between the present value of future benefits and the present value of future normal costs. Actuarial gains or losses which arise from the deviation of actual experience from expected experience lead to decreases or increases in the unfunded actuarial liability.

This cost method meets the Charter requirement that normal cost be determined as a level percent of pay.

Amortization Method for Funding Policy

The Retirement Board's funding policy specifies the various periods over which different components of the unfunded actuarial liability must be amortized subject to the Charter requirement that amortization periods not exceed 20 years.

The Retirement Board adopted the following amortization methods beginning with the July 1, 2014 actuarial funding valuation:

- 20-year closed periods for net actuarial gains and losses
- 20-year closed periods for assumption or method changes
- 15-year closed periods for Charter amendments (five-year closed periods for retirement incentive programs and amendments for inactive members)
- 5-year closed periods for supplemental COLAs
- The portion of the unfunded actuarial liability not attributable to Charter amendments as of July 1, 2013 was re-amortized over a closed 19-year period as of July 1, 2014.

Any Charter amendment prior to July 1, 2014 has been amortized over 20 years from the date it was first recognized in the valuation. Prior to July 1, 2014, the portion of the unfunded actuarial liability not attributable to Charter amendments was amortized over a rolling 15-year period.

All amortization schedules are determined on a level percent of pay basis which means that for the duration of the amortization schedule, payment amounts increase each year at the assumed wage inflation rate.

Investment Return Assumption

SFERS' assets are assumed to earn 7.40% net of investment expenses. This assumption was adopted beginning with the July 1, 2018 valuation. For funding purposes, the discount rate used to calculate the actuarial liabilities and normal costs is set equal to the assumed investment return.

Inflation

Wage inflation is assumed to be 3.25% compounded annually. This assumption was adopted effective July 1, 2020. Consumer price inflation is assumed to be 2.50% compounded annually effective July 1, 2020.

Old Plans - Police and Fire, Charters 8.559 and 8.585	3.60% per year
Old Plans - Police and Fire, Charters 8.595 and 8.596	2.50% per year
Old Plans - Police and Fire, pre-7/1/75 retirement	1.90% per year
Old Plans - Miscellaneous	2.00% per year
New Plans - Police, Fire and Miscellaneous	2.00% per year

Supplemental Cost-of-Living Increases

Future supplemental COLAs are assumed to be 0% in the actuarial funding valuation. An assumption for future supplemental COLAs is included in the financial reporting valuation; see Note 10 to the financial statements.

Salary Increase Rate

- Wage inflation component: Bargained increases through July 1, 2022 followed by 3.25% compounded annually thereafter (adopted July 1, 2020)
- The additional merit component at selected years of service:

Years of Service	Police	Fire	Muni Drivers	Craft	Other Misc.
0	7.50%	14.00%	16.00%	3.75%	5.50%
5	3.75	4.00	1.25	1.20	2.25
10	1.50	1.50	0.30	0.50	1.10
15	0.50	0.50	0.00	0.50	0.55

Extra covered wages in the last year before service retirement are assumed to be as follows:

Safety	3.0% per year
Muni Drivers	4.5% per year
Craft Workers	3.0% per year
Other Miscellaneous	2.0% per year

Future Interest Crediting Rate on Member Contributions

4.50% compounded annually.

Administrative Expense Assumption

There is a 0.60% of Payroll assumption included in the normal cost rates for administrative expenses.

Member Refunds

Non-vested terminated members are assumed to receive a refund of their contributions with interest. The rates of refund for vested terminated members in the year of termination are shown below at selected years of service.

	Rates of Refund for Vested Terminated Members	
Service	Police & Fire	Misc.
5	24.0%	20.0%
7	16.0	12.0
10	4.0	8.5
15	0.0	6.0

In estimating refund amounts, it is assumed that employee contribution rates are, on average, not changed by the cost-sharing provisions of the November 2011 Proposition C.

Family Composition

The percentage assumed to be married (including assumption for Domestic Partners, 1994 Proposition H) is shown in the table below. Spouses of male members are assumed to be three years younger than the member and spouses of female members are assumed to be two years older than the member.

	Percentage Married
Safety Males	80%
Safety Females	60
Miscellaneous Males	75
Miscellaneous Females	55

Rates of Termination of Employment

Sample rates of termination by age and service for Miscellaneous (excluding Muni drivers and Craft) members are shown below:

	Age		
Service	Under 30	30 to 39	40 & over
0	38.00%	24.00%	24.00%
5	6.75	6.00	6.00
10	3.75	3.75	3.75
15	2.25	2.25	2.25
20+	1.00	1.00	1.00

Sample rates of termination by service for Police, Fire, Muni Drivers and Craft members are shown below:

Service	Police	Fire	Muni Drivers	Craft
0	8.00%	2.50%	12.00%	9.50%
5	1.00	1.00	3.00	3.25
10	0.75	0.50	2.50	1.75
15	0.50	0.25	2.50	1.75
20+	0.50	0.25	2.50	1.75

Termination rates are zero when members are eligible to retire. 20% of Miscellaneous and 40% of Safety terminating employees are assumed to subsequently work for a reciprocal employer and receive pay increases equal to the wage inflation assumption.

In estimating termination benefits for Miscellaneous members, it is assumed that employee contribution rates are, on average, not changed by the cost-sharing provisions of the November 2011 Proposition C.

Rates of Disability

Sample disability rates of active participants are provided below:

Age	Police	Fire	Muni Drivers	Craft	Other Misc. Females	Other Misc. Males
30	0.05%	0.04%	0.01%	0.01%	0.01%	0.01%
40	0.35	0.24	0.11	0.11	0.07	0.08
50	0.90	0.84	0.45	0.40	0.40	0.28
60	5.75	7.30	0.00	0.00	0.00	0.00

100% of safety and 0% of miscellaneous disabilities are assumed to be duty related. If projected disability occurs prior to service retirement eligibility, the level of duty disability is assumed to 55% of pay for Police and 55% of pay for Fire.

Rates of Retirement

Rates of retirement are based upon years of service and age. Members hired on or after January 7, 2012 (Tier III Plans) reach the highest benefit multiplier at later ages than the other members and have separate assumed rates of retirement. Sample retirement rates for active participants are provided in the following two tables:

Old Plans and New Plans' Tiers I and II

	Years of Service		
Age	19 or less (24 or less for Safety)	20-29 (25-29 for Safety)	30 or more
Muni Drivers			
55	0.00%	4.00%	5.00%
60	10.00%	10.00%	20.00%
65	27.50%	30.00%	35.00%
Craft			
55	0.00%	2.50%	5.00%
60	7.50%	12.00%	32.50%
65	25.00%	27.50%	30.00%
Other Misc.			
55	0.00%	4.00%	5.50%
60	9.00%	11.50%	30.00%
65	20.00%	30.00%	30.00%
Police			
55	7.50%	35.00%	50.00%
60	20.00%	34.00%	45.00%
65	100.00%	100.00%	100.00%
Fire			
55	7.50%	25.00%	35.00%
60	15.00%	25.00%	35.00%
65	100.00%	100.00%	100.00%

Tier III Plans (includes Sheriffs Plan and Miscellaneous Safety Plan)

	Years of Service		
Age	19 or less (24 or less for Safety)	20-29 (25-29 for Safety)	30 or more
Muni Drivers			
55	0.00%	1.00%	5.00%
60	5.00%	10.00%	15.00%
65	27.50%	30.00%	40.00%
Craft			
55	0.00%	1.50%	2.50%
60	5.00%	7.50%	15.00%
65	25.00%	30.00%	40.00%
Other Misc.			
55	0.00%	4.00%	4.00%
60	7.50%	10.00%	12.50%
65	25.00%	40.00%	40.00%
Police			
55	7.50%	20.00%	35.00%
60	20.00%	34.00%	45.00%
65	100.00%	100.00%	100.00%
Fire			
55	7.50%	15.00%	25.00%
60	15.00%	25.00%	35.00%
65	100.00%	100.00%	100.00%

The assumed retirement age for inactive terminated vested members and actives who are expected to terminate is shown below:

	Tier I and II Plans	Tier III Plans
Safety	51	55
	Non-Reciprocal	**Reciprocal**
Miscellaneous	55	60

Rates of Mortality for Healthy Lives

Mortality rates used in the valuation are developed from a base table that is projected generationally from the base year of that table using the mortality projection scale described below. Base mortality tables are developed by multiplying a published table by an adjustment factor that was developed in the experience study for the period ending June 30, 2019. The base mortality tables for healthy lives are as follows:

Age	Published Table	Adjustment Factor Male	Adjustment Factor Female
Non-Annuitants			
Miscellaneous	PubG-2010 Employee	0.834	0.866
Safety	PubS-2010 Employee	1.011	0.979
Retirees			
Miscellaneous	PubG-2010 Retiree	1.031	0.977
Safety	PubS-2010 Retiree	0.947	1.044
Beneficiaries			
Miscellaneous	PubG-2010 Retiree	1.031	0.977
Safety	PubS-2010 Retiree	1.031	0.977

For active members, 25% of Safety deaths and 0% of Miscellaneous deaths are assumed to be duty related.

Rates of Mortality for Retired Disabled Lives

For disabled annuitant mortality, separate base tables are developed for males and females and for Miscellaneous and Safety members by multiplying a published table by an adjustment factor that was developed in the experience study for the period ending June 30, 2019. The base mortality tables for disalbed lives are as follows:

Age	Published Table	Adjustment Factor Male	Adjustment Factor Female
Disabled Annuitants			
Miscellaneous	PubG-2010 Employee	1.045	1.003
Safety	PubS-2010 Employee	0.916	0.995

Mortality Projection Scale

The mortality rates shown in the base tables above are projected generationally from the base year using the MP-2019 projection scale.

Recent Changes

Changes in actuarial assumptions and methods since the July 1, 2019 valuation include the following:

- Wage Inflation: From 3.50% for all years to bargained increases through July 1, 2022 followed by 3.25% compounded annually thereafter;
- Consumer Price Inflation: 2.75% to 2.50% compounded annually
- Mortality, termination, retirement rates and other demographic assumption changes as detailed in the demographic experience study for the period covering July 1, 2014 to June 30, 2019 and adopted bye the Retirement Board on December 9, 2020.

There have been no significant changes in plan provisions reflected since the July 1, 2019 actuarial valuation.

There have been no changes in retained actuary or actuarial firm.

Contribution Information

The funding policy of the Retirement System is described in this Actuarial Section and also in Note 9 of the financial statements. A ten-year schedule of employer contributions may be found in the Required Supplementary Information of the Financial Section. Information on rates of employer and member contributions based on covered payroll may be found in the Statistical Section.

Total Pension Liability for GASB 67 Financial Reporting

The Actuarial Accrued Liability (AAL) of this Actuarial Section is calculated using the same actuarial cost method as the Total Pension Liability (TPL) found in Note 10 of the financial statements. However, the AAL differs from the Total Pension Liability in three ways:

- The AAL developed for the funding valuation does not include an assumption of future supplemental COLAs. The AAL does include all liabilities for supplemental COLAs that have already occurred as of the valuation date. Total Pension Liability incorporates the probability that future supplemental COLAs may occur in years after the valuation date.
- The census date of the AAL is the same as the valuation date of July 1. The census date for the June 30 fiscal year-end Total Pension Liability is as of previous July 1 valuation date. The Total Pension Liability is a roll-forward liability using standard roll-forward procedures, adjusted for significant changes during the fiscal year.
- The AAL is valued at a discount rate equal to the assumed investment return, while the Total Pension Liability is valued at a discount rate that could be equal to or lower than the assumed investment return.

Note 10 contains further information about the assumed probabilities of future supplemental COLAs, the roll-forward of liabilities, and the assumed discount rate for GASB 67 financial reporting. Other than these differences, the actuarial assumptions used for funding purposes are the same assumptions used for financial reporting purposes.

ACTUARIAL ANALYSIS OF FINANCIAL EXPERIENCE

The analysis of financial experience is a gain/loss analysis of changes in the unfunded actuarial accrued liability (UAAL) that considers variances between actual experience and assumed experience. The net expected changes in the UAAL from one year to the next include the sum of the additional benefits accrued during the year (the normal cost) and the interest accrual on the UAAL reduced by the payment of employer contributions.

The analysis also shows the impact on the UAAL due to changes in benefits due to supplemental COLAs and voter-approved propositions and also due to changes in assumptions such as mortality, investment return, or salary merit scale. Changes in the UAAL due to asset returns include the impacts of the five-year smoothing of investment returns inherent in the actuarial asset valuation method.

(Dollars in millions)

As of July 1	2020	2019	2018	2017	2016
Prior Valuation Unfunded Actuarial Accrued Liability	$ 3,551.0	$ 3,469.4	$ 3,520.8	$ 3,749.2	$ 3,317.60
Expected change from Prior Valuation	(311.2)	(232.4)	(157.7)	(82.5)	(25.2)
Expected Unfunded Actuarial Liability as of Valuation Date	3,239.8	3,237.0	3,363.1	3,666.7	3,292.4
Changes in Benefits due to Propositions and/or Supplemental COLAs	0.0	141.0	200.8	200.1	429.3
Changes in Assumptions	(591.4)	0.0	297.7	50.2	0.0
Salary Increases Greater/(Less) than Expected	114.5	46.0	(53.7)	(80.6)	4.9
Asset Return Less/(Greater) than Expected	6.4	(58.6)	(408.9)	(405.7)	51.5
All Other Experience	34.8	185.6	70.4	90.1	(28.9)
Unfunded Actuarial Accrued Liability as of Valuation Date	**$ 2,804.1**	**$ 3,551.0**	**$ 3,469.4**	**$ 3,520.8**	**$ 3,749.2**

SCHEDULE OF FUNDING PROGRESS

The schedule below presents valuation results for the last 10 years based upon actuarial methods and assumptions used for funding purposes.

(Dollars in thousands)

Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b)-(a)	Funded Ratio (a)/(b)	Covered Payroll[1]	UAAL as a % of Covered Payroll
7/01/2011	16,313,120	18,598,728	2,285,608	87.7%	2,360,413	96.8%
7/01/2012	16,027,683	19,393,854	3,366,171	82.6%	2,393,842	140.6%
7/01/2013	16,303,397	20,224,777	3,921,380	80.6%	2,535,963	154.6%
7/01/2014	18,012,088	21,122,567	3,110,479	85.3%	2,640,153	117.8%
7/01/2015	19,653,339	22,970,892	3,117,553	85.6%	2,820,968	110.5%
7/01/2016	20,654,703	24,403,882	3,749,179	84.6%	3,062,422	122.4%
7/01/2017	22,185,244	25,706,090	3,520,846	86.3%	3,242,468	108.6%
7/01/2018	23,866,028	27,335,417	3,469,389	87.3%	3,385,517	102.5%
7/01/2019	25,247,549	28,798,581	3,551,032	87.7%	3,549,936	100.0%
7/01/2020	26,695,844	29,499,918	2,804,074	90.5%	3,703,103	75.7%

1 Covered payroll based upon actuarial projection of annualized pay for the year beginning on the valuation date.

ACTUARIAL SOLVENCY TEST

The solvency test compares aggregate actuarial liabilities by various categories with the plan's present assets. Category (A), active member contributions, includes both employee contributions and earned interest. Category (B) includes all liabilities for members no longer working, both retirees and beneficiaries who are receiving payments and also other inactives entitled to future payments. Category (C) includes the actuarial accrued liability for active members in excess of the active member contributions.

The table below shows a 100% funded status over the last ten years for employee contributions with interest (Category A) and for members who have terminated service with rights to future payments (Category B). The liabilities for service already rendered by active members (Category C) has not been fully funded since the July 1, 2008 actuarial valuation. The decline in funding percentages for Category C reflects both the 2008-2009 financial crisis (phased-in over five years in the actuarial value of assets) and the lowering of the discount rate over the last ten years from 7.75% at July 1, 2008 to 7.40% at July 1, 2018. The decline in Category C funding percentages also reflects changes in benefits and revisions in actuarial assumptions other than discount rate. Significant changes include the adoption of generational projection of mortality improvements at July 1, 2015 and retroactive supplemental COLAs recognized at July 1, 2016.

(Dollars in millions)

	Actuarial Accrued Liability (AAL)				Percentage of AAL Covered by Assets		
Valuation Date	Active Member Contributions (A)	Retirees, Beneficiaries, and Inactives (B)	Employer Financed Portion of Active Members (C)	Actuarial Value of Assets	(A)	(B)	(C)
7/1/2011	2,364	10,987	5,248	16,313	100%	100%	56%
7/1/2012	2,451	11,658	5,285	16,028	100%	100%	36%
7/1/2013	2,633	12,257	5,335	16,303	100%	100%	26%
7/1/2014	2,825	12,901	5,397	18,012	100%	100%	42%
7/1/2015	2,995	13,931	6,045	19,653	100%	100%	45%
7/1/2016	3,175	14,941	6,288	20,655	100%	100%	40%
7/1/2017	3,325	15,847	6,535	22,185	100%	100%	46%
7/1/2018	3,496	17,024	6,816	23,866	100%	100%	49%
7/1/2019	3,675	18,074	7,050	25,248	100%	100%	50%
7/1/2020	3,916	18,621	6,963	26,696	100%	100%	60%

SCHEDULE OF ACTIVE MEMBER VALUATION DATA

Valuation Date	Plan Type	Count[1]	Annual Covered Pay[1]	Average Annual Covered Pay	% Increase in Average Covered Pay
7/1/2011	General	24,701	1,883,122,340	76,237	-1.7%
	Safety	3,255	380,458,039	116,884	3.2%
7/1/2012	General	24,878	1,928,148,586	77,504	1.7%
	Safety	3,219	395,842,540	122,971	5.2%
7/1/2013	General	25,392	2,031,987,811	80,025	3.3%
	Safety	3,325	417,543,208	125,577	2.1%
7/1/2014	General	26,053	2,109,100,013	80,954	1.2%
	Safety	3,463	429,618,756	124,060	(1.2)%
7/1/2015	General	27,233	2,259,320,255	82,963	2.5%
	Safety	3,604	441,419,658	122,480	(1.3)%
7/1/2016	General	28,623	2,439,969,498	85,245	2.8%
	Safety	3,783	462,752,871	122,324	(0.1)%
7/1/2017	General	29,545	2,621,632,438	88,734	4.1%
	Safety	3,902	481,039,920	123,280	0.8%
7/1/2018	General	29,910	2,733,626,773	91,395	3.0%
	Safety	4,036	502,353,057	124,468	1.0%
7/1/2019	General	30,056	2,843,589,575	94,610	3.5%
	Safety	4,146	535,124,687	129,070	3.7%
7/1/2020	General	30,327	3,015,795,127	99,443	5.1%
	Safety	4,194	567,471,231	135,305	4.8%

1 Annual Covered Pay represents the sum of the annualized valuation salary for the prior fiscal year for each active member as of the July 1 valuation date.

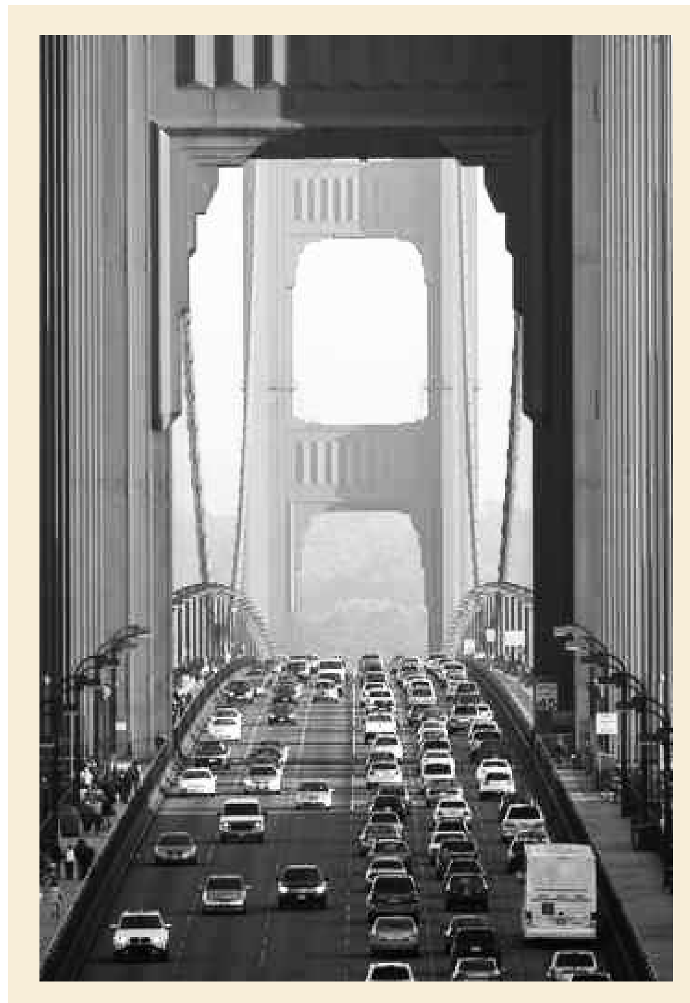
RETIREES AND BENEFICIARIES IN PAYEE STATUS

	Added to Rolls		Removed from Rolls		Rolls at End of Year			
Fiscal Year	Member Count[1]	Annual Allowance	Member Count	Annual Allowance	Member Count[1]	Annual Allowance	% Increase in Annual Allowance	Average Annual Allowance
2010-11	1,672	66,575,560	880	24,641,442	24,292	905,053,471	8.5%	37,257
2011-12	1,769	70,868,367	871	26,958,609	25,190	982,250,287	8.5%	38,994
2012-13	1,577	66,437,220	733	22,406,077	26,034	1,045,547,799	6.4%	40,161
2013-14	1,588	65,923,470	770	25,170,856	26,852	1,103,959,803	5.6%	41,113
2014-15	1,564	63,136,134	931	29,314,643	27,485	1,157,081,680	4.8%	42,099
2015-16	1,657	72,049,646	856	30,384,191	28,286	1,247,230,245	4.7%	44,094
2016-17	1,769	80,214,008	928	35,082,179	29,127	1,332,430,263	6.8%	45,746
2017-18	1,797	84,574,963	959	36,284,323	29,965	1,424,324,641	6.9%	47,533
2018-19	1,770	83,661,179	957	36,959,870	30,778	1,513,436,081	6.3%	49,173
2019-20	1,470	74,777,425	816	34,764,875	30,128	1,587,981,080	4.9%	52,708

1 Member Count as of FYE 2020 reflects combining records for members who have both a Safety and Miscellaneous benefit.

STATISTICAL SECTION

The Statistical Section provides financial and operational information in further detail to assist users in understanding trends in the Basic Financial Statements, Notes to Basic Financial Statements, and Required Supplemental Information.



Financial Information

- ***Additions to Pension Plan by Source*** reflects the various sources of income to SFERS
- ***Deductions to Pension Plan by Type*** displays the major expenses to SFERS which are benefits paid to members, refunds of employee contributions to members, and administrative expenses
- ***Changes in Fiduciary Net Position*** shows the changes in net position during each of the last 10 fiscal years
- ***Benefit Expenses of Pension Plan by Type*** details the benefits paid during the fiscal year due to retirements, disability, death, newly granted COLAs, and accruals for DROP

Operational Information

- ***Average Pension Benefit Payments*** highlights benefit levels paid to newly retired and disabled members with differing amounts of credited service
- ***Active Members by Employer*** compares the current active member counts for each SFERS cost-sharing employer to counts from 2012
- ***Employer Contribution Rates*** details the components that comprise the last ten years of employer contribution rates
- ***Employer and Employee Contribution Rates for Fiscal Year 2020-21*** shows the contribution rates for various member classes after application of the cost-sharing provisions of 2011 Proposition C

ADDITIONS TO PENSION PLAN BY SOURCE

(Dollars in thousands)

Fiscal Year Ending June 30	Member Contributions	Employer Contributions	Gross Return on Investments	Investment Expenses	Total
2012	198,160	410,797	124,942	(44,540)	689,359
2013	258,726	442,870	2,106,204	(41,654)	2,766,146
2014	289,020	532,882	3,223,030	(47,599)	3,997,333
2015	301,682	592,643	808,340	(44,911)	1,657,754
2016	322,764	526,805	197,216	(47,026)	999,759
2017	316,844	551,809	2,730,863	(47,395)	3,552,121
2018	364,696	619,067	2,599,555	(49,881)	3,533,437
2019	380,980	645,056	2,018,752	(48,440)	2,996,348
2020	400,649	742,985	1,012,953	(46,671)	2,109,916
2021	409,398	836,559	9,510,000	(62,331)	10,693,626

DEDUCTIONS TO PENSION PLAN BY TYPE

(Dollars in thousands)

Fiscal Year Ending June 30	Benefits Paid	Refunds of Contributions	Administrative Ex-penses	Total
2012	968,528	11,030	14,916	994,474
2013	1,023,354	9,453	15,518	1,048,325
2014	1,062,229	10,297	15,745	1,088,271
2015	1,118,691	12,339	19,262	1,150,292
2016	1,243,260	12,886	17,179	1,273,325
2017	1,264,633	13,507	18,134	1,296,274
2018	1,350,009	14,578	18,238	1,382,825
2019	1,438,935	17,747	18,983	1,475,665
2020	1,531,041	17,036	20,270	1,568,347
2021	1,599,507	20,254	20,249	1,640,010

Together, the above two tables present the changes in fiduciary net position during each of the last 10 fiscal years. Total additions less total deductions equal the net increase or decrease in fiduciary net position.

CHANGES IN FIDUCIARY NET POSITION

(Dollars in thousands)

Fiscal Year Ending June 30	Additions	Deductions	Net Change	Beginning of Year	End of Year
2012	689,359	994,474	(305,115)	15,598,839	15,293,724
2013	2,766,146	1,048,325	1,717,821	15,293,724	17,011,545
2014	3,997,333	1,088,271	2,909,062	17,011,545	19,920,607
2015	1,657,754	1,150,292	507,462	19,920,607	20,428,069
2016	999,759	1,273,325	(273,566)	20,428,069	20,154,503
2017	3,552,121	1,296,274	2,255,847	21,154,503	22,410,350
2018	3,533,437	1,382,825	2,150,612	22,407,354	24,557,966
2019	2,996,348	1,475,665	1,520,683	24,557,966	26,078,649
2020	2,109,916	1,568,347	541,569	26,078,649	26,620,218
2021	10,693,626	1,640,010	9,053,616	26,620,218	35,673,834

Note that 2018 fiscal year fiduciary net position at beginning of year was restated due to adoption of GASB No. 75.

BENEFIT PAYMENTS OF PENSION PLAN BY TYPE

(Dollars in thousands)

Fiscal Year	Retirement Benefits	Disability Benefits	Death Benefits	COLA Benefit Adjustments	DROP Accrued Retirement	Total
2012	716,744	161,782	8,198	57,234	24,570	968,528
2013	770,521	168,365	8,387	54,816	21,265	1,023,354
2014	827,311	172,619	7,998	53,098	1,203	1,062,229
2015	878,834	175,620	7,492	51,447	5,298	1,118,691
2016	937,388	179,056	8,990	118,012	(186)	1,243,260
2017	994,408	184,376	11,163	74,890	(294)	1,264,633
2018	1,063,184	187,365	10,224	89,236	0	1,350,009
2019	1,131,334	193,016	8,908	105,945	(268)	1,438,935
2020	1,209,024	199,655	8,667	113,695	0	1,531,041
2021	1,272,492	204,831	11,538	110,646	0	1,599,507

Fiscal year 2016 COLA benefits include retroactive supplemental COLA benefits for 2013 and 2014 paid after the October 2015 Superior Court judgment. Benefit payments and refunds of contributions for the most recent fiscal year are provided in further detail in the Financial Section under Other Supplementary Information.

AVERAGE PENSION BENEFIT PAYMENT FOR RETIRED AND DISABLED MEMBERS

	Years of Credited Service					
Retirement Effective Dates	**5 – 9**	**10 – 14**	**15 – 19**	**20 – 24**	**25 – 29**	**30+**
07/1/11 to 6/30/12						
Average Mo. Benefit	$ 899	$ 1,769	$ 2,675	$ 3,373	$ 5,084	$ 7,308
Average Final Comp.	$ 7,543	$ 7,050	$ 7,044	$ 7,099	$ 8,258	$ 9,405
Number	138	228	179	207	235	331
07/1/12 to 6/30/13						
Average Mo. Benefit	$ 909	$ 1,776	$ 2,792	$ 3,579	$ 5,720	$ 7,340
Average Final Comp.	$ 7,225	$ 6,982	$ 7,409	$ 7,564	$ 8,699	$ 9,758
Number	116	195	120	193	253	275
07/1/13 to 6/30/14						
Average Mo. Benefit	$ 980	$ 1,971	$ 2,812	$ 3,826	$ 5,720	$ 6,927
Average Final Comp.	$ 7,866	$ 7,214	$ 7,530	$ 7,905	$ 8,656	$ 9,143
Number	138	181	170	155	212	257
7/1/14 to 6/30/15						
Average Mo. Benefit	$ 969	$ 1,817	$ 2,930	$ 4,321	$ 5,237	$ 6,654
Average Final Comp.	$ 6,627	$ 6,844	$ 7,759	$ 8,267	$ 7,977	$ 8,827
Number	109	177	163	165	187	245
7/1/15 to 6/30/16						
Average Mo. Benefit	$ 1,051	$ 2,077	$ 2,906	$ 4,071	$ 5,716	$ 6,514
Average Final Comp.	$ 7,363	$ 8,266	$ 7,485	$ 8,404	$ 9,534	$ 9,016
Number	110	184	196	175	211	291
7/1/16 to 6/30/17						
Average Mo. Benefit	$ 1,113	$ 2,057	$ 3,184	$ 4,657	$ 6,138	$ 7,275
Average Final Comp.	$ 8,182	$ 7,989	$ 8,106	$ 9,205	$ 9,455	$ 9,651
Number	129	197	211	167	199	263
7/1/17 to 6/30/18						
Average Mo. Benefit	$ 1,150	$ 2,139	$ 3,293	$ 4,294	$ 6,762	$ 7,249
Average Final Comp.	$ 7,949	$ 8,229	$ 8,369	$ 8,647	$ 10,158	$ 9,590
Number	98	210	289	251	244	429
7/1/18 to 6/30/19						
Average Mo. Benefit	$ 1,212	$ 2,204	$ 3,372	$ 4,474	$ 6,827	$ 7,114
Average Final Comp.	$ 7,656	$ 8,688	$ 8,579	$ 9,243	$ 10,307	$ 9,978
Number	135	188	224	241	227	304

AVERAGE PENSION BENEFIT PAYMENT FOR RETIRED AND DISABLED MEMBERS (continue)

	Years of Credited Service					
Retirement Effective Dates	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30+
7/1/19 to 6/30/20						
Miscellaneous Members						
Average Mo. Benefit	$ 1,121	$ 2,424	$ 3,143	$ 4,174	$ 5,286	$ 6,880
Average Final Comp.	$ 8,500	$ 9,585	$ 8,553	$ 9,136	$ 9,362	$ 9,743
Number	102	132	147	178	111	183
Safety Members						
Average Mo. Benefit	$ 4,065	$ 4,133	$ 7,228	$ 7,740	$ 11,979	$ 12,950
Average Final Comp.	$ 10,871	$ 11,814	$ 13,224	$ 13,171	$ 15,164	$ 15,210
Number	5	3	14	18	34	28
7/1/20 to 6/30/21						
Miscellaneous Members						
Average Mo. Benefit	$ 1,153	$ 2,226	$ 3,594	$ 4,597	$ 5,837	$ 7,182
Average Final Comp.	$ 5,687	$ 7,040	$ 8,975	$ 10,201	$ 9,668	$ 9,927
Number	100	156	158	219	144	245
Safety Members						
Average Mo. Benefit	$ 1,605	$ 4,198	$ 6,648	$ 8,193	$ 11,043	$ 13,811
Average Final Comp.	$ 10,752	$ 11,432	$ 13,086	$ 12,871	$ 14,087	$ 15,672
Number	3	8	7	33	67	39

ACTIVE MEMBERS BY EMPLOYER

Employer	July 1, 2021	Percentage of System	July 1, 2012	Percentage of System
City and County of San Francisco[1]	31,406	93.3%	26,001	91.9%
San Francisco Unified School District	1,303	3.9%	1,180	4.2%
San Francisco Community College District	573	1.7%	686	2.4%
San Francisco Trial Courts	362	1.1%	415	1.5%
Total	**33,644**	**100.0%**	**28,282**	**100.0%**

1 Includes active DROP

EMPLOYER CONTRIBUTION RATES

Before Adjustment for Cost-Sharing Provisions[1]

Fiscal Year	Normal Cost	Remaining Cost of Propositions	Other UAL	Employee Contributions	Administrative Expenses	Total
2012	17.90%	6.51%	0.73%	(7.50%)	0.45%	18.09%
2013	17.90%	6.21%	3.66%	(7.51%)	0.45%	20.71%
2014	17.91%	6.11%	7.88%	(7.53%)	0.45%	24.82%
2015	18.26%	5.99%	9.60%	(7.54%)	0.45%	26.76%
2016	18.38%	5.86%	5.65%	(7.54%)	0.45%	22.80%
2017	18.65%	5.69%	4.02%	(7.56%)	0.60%	21.40%
2018	18.56%	5.12%	6.75%	(7.57%)	0.60%	23.46%
2019	17.25%	5.07%	7.97%	(7.58%)	0.60%	23.31%
2020	17.71%	4.80%	9.67%	(7.59%)	0.60%	25.19%
2021	17.72%	4.74%	11.45%	(7.61%)	0.60%	26.90%

1 Cost sharing provisions effective July 1, 2012 following passage of Proposition C in November of 2011

FISCAL YEAR 2020-2021 EMPLOYER AND EMPLOYEE CONTRIBUTION RATES

Employer and employee contribution rates are shown below after adjustment for the Proposition C cost-sharing provisions. Proposition C was passed by voters in the November 2011 election and established cost-sharing provisions between employee-members and employers. When the unadjusted employer contribution rates are higher than 12.00%, a portion of the employer contribution (up to 6.00%) is transferred to the member contribution rate. When unadjusted employer contribution rates are lower than 11.01%, a portion of the member contribution rate (up to 6.00%) would be transferred to the employer. Contribution rates are adjusted once a year based on the unadjusted employer contribution rate adopted by the Retirement Board and the member's hourly base rate of pay as of the June 30 prior to the effective date of the contribution rate.

FISCAL YEAR 2020-2021 EMPLOYER CONTRIBUTION RATES

After Cost-Sharing Provisions

Member Group	Base Rate of Pay Less than $30 per hour	Base Rate of Pay At or above $30 but less than $61 per hour	Base Rate of Pay At or above $61 per hour
Miscellaneous Non-Safety Plans	26.90%	23.40%	22.90%
Police and Firefighter Old Plans	22.40%	22.40%	22.40%
Police and Firefighter New Plans Tier I	22.40%	22.40%	22.40%
Police and Firefighter New Plans Tiers II and III	23.40%	23.40%	22.90%
Miscellaneous Safety and Sheriffs Plans	23.40%	23.40%	22.90%

FISCAL YEAR 2020-2021 EMPLOYEE CONTRIBUTION RATES

After Cost-Sharing Provisions

Member Group	Base Rate of Pay Less than $30 per hour	Base Rate of Pay At or above $30 but less than $61 per hour	Base Rate of Pay At or above $61 per hour
Miscellaneous Old Plans	8.0%	11.5%	12.0%
Miscellaneous New Plans	7.5%	11.0%	11.5%
Police and Firefighter Old Plans	11.5%	11.5%	11.5%
Police and Firefighter New Plans Tier I	12.0%	12.0%	12.0%
Police and Firefighter New Plans Tiers II and III	12.5%	12.5%	13.0%
Miscellaneous Safety and Sheriffs Plans	12.5%	12.5%	13.0%

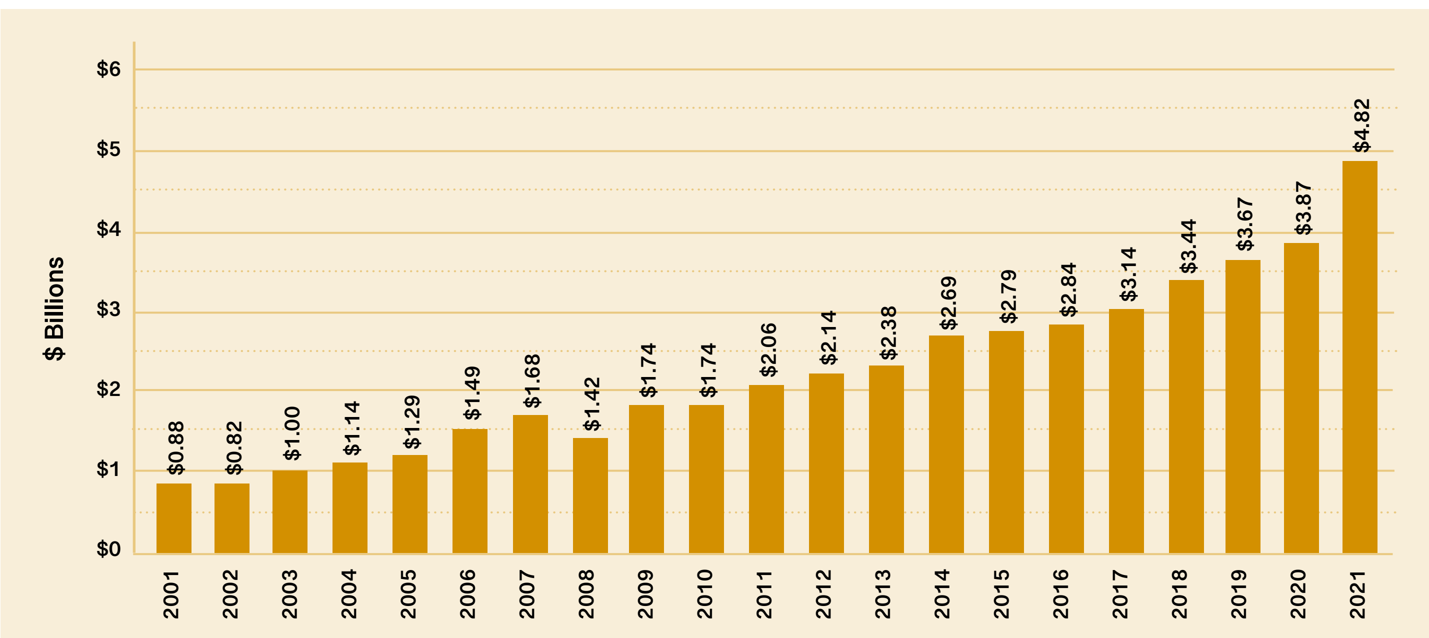
DEFERRED COMPENSATION PLAN (SFDCP)

The San Francisco 457(b) Deferred Compensation Plan (SFDCP) was adopted in 1976 to offer active members an opportunity to acquire additional retirement savings intended to complement pension benefits. The SFDCP allows City employees to voluntarily defer a portion of their regular earnings until after they retire or separate from service. This method of tax deferral has become increasingly popular, and the Plan also offers Roth after-tax contributions. During the past fiscal year, plan assets for the SFDCP grew at approximately 26%, and the average account balance per participant was $148,809.

The Plan provides a diverse selection of thirteen core investment funds, a suite of Target Date Funds, risk-based model portfolios, a discretionary managed account service, and access to a self-directed brokerage platform. In addition to this enhanced lineup of investment options, the SFDCP offers participants exceptionally low fees, a customized website, financial education, online transactions, and dedicated retirement counselors available in person at the SFDCP office, around the City, or virtually. Voya Financial currently serves as the recordkeeper for the SFDCP.

As of June 30, 2021, there were 32,375 participants in the SFDCP with Plan assets valued at nearly $4.9 Billion in assets under management. The following chart and table provide detailed information about the investments that make up the City's 457(b) Deferred Compensation Plan, as well as customer service and participation activity for the Fiscal Year 2020-21.

SFDCP Assets under Management



SFDCP Values as of June 30, 2021

Funds	Total Assets *	Percent Of Total Assets	Annual Performance
SFDCP Stable Value Fund	$ 989,092,546	20.53%	2.08%
SFDCP Core Bond Fund	$ 157,038,676	3.26%	1.78%
SFDCP Bond Index Fund	$ 194,594,658	4.04%	-0.43%
SFDCP Retirement Fund	$ 265,684,242	5.51%	17.09%
SFDCP Target Date 2025 Fund	$ 178,007,559	3.69%	18.81%
SFDCP Target Date 2030 Fund	$ 165,820,348	3.44%	22.81%
SFDCP Target Date 2035 Fund	$ 136,227,621	2.83%	29.15%
SFDCP Target Date 2040 Fund	$ 101,735,705	2.11%	38.26%
SFDCP Target Date 2045 Fund	$ 75,252,978	1.56%	39.85%
SFDCP Target Date 2050 Fund	$ 31,559,854	0.66%	39.85%
SFDCP Target Date 2055 Fund	$ 15,133,568	0.31%	39.85%
SFDCP Target Date 2060 Fund	$ 876,909	0.02%	39.83%
SFDCP Target Date 2065 Fund	$ 1,344,148	0.03%	39.82%
SFDCP Large Cap Value Equity Fund	$ 84,228,093	1.75%	48.13%
SFDCP Large Cap Equity - S&P 500 Index Fund	$ 632,603,623	13.13%	40.78%
SFDCP Large Cap Social Equity Fund	$ 118,858,958	2.47%	42.11%
SFDCP Large Cap Growth Equity Fund	$ 757,936,521	15.73%	43.32%
SFDCP Active Equity Fund	$ 140,915,083	2.92%	52.39%
SFDCP Small-Mid Cap Equity Index Fund	$ 315,107,683	6.54%	61.65%
SFDCP Small-Mid Cap Equity Fund	$ 17,646,398	0.37%	55.11%
SFDCP International Equity Fund	$ 195,386,125	4.06%	39.56%
SFDCP International Equity Index Fund	$ 167,059,010	3.47%	32.59%
SFDCP Real Estate Fund	$ 32,511,933	0.67%	34.79%
Self Directed Brokerage	$ 43,067,627	0.89%	N/A
Total Plan Assets	**$ 4,817,689,867**	**100.00%**	

* Assets are rounded up to the nearest dollar

SFDCP Statistics Summary

Plan Year Ended June 30, 2021

Asset Summary	
Beginning Assets July 1, 2020[1]	$ 3,869,388,342
Contributions	196,689,729
Roll-ins	12,246,616
Less Distributions	185,438,525
Outstanding Loans	43,447,174
Ending Assets June 30, 2021[1]	**$ 4,861,137,042**
Participant Summary	
Beginning Participants July 1, 2020	31,780
New Participants	1,370
Actively Contributing Participants	20,244
Ending Participants June 30, 2021	**32,375**
Service Summary	
Group Meetings	232
Field and Office Individual Counseling Sessions	4,257
Customer Service Calls (IVR and Representatives)	38,724
Web Logins	564,619

1 Includes miscellaneous transactions, loan repayments and net appreciation (earnings).