# A G E N D A

**BOARD MEETING**
**SAN JOAQUIN COUNTY EMPLOYEES RETIREMENT ASSOCIATION**
**BOARD OF RETIREMENT**
**FRIDAY, AUGUST 13, 2021**
**AT 9:00 AM**
Location: Via Zoom

In accordance with current state and local emergency proclamations and orders, this Board Meeting will be held virtually via Zoom Client.

The public may only attend the meeting by (1) clicking here https://us02web.zoom.us/j/81780091980 and following the prompts to enter your name and email, or (2) calling (669) 219-2599 or (669) 900-9128 and entering Meeting ID 81780091980#

Persons who require disability-related accommodations should contact SJCERA at (209) 468-9950 or KendraF@sjcera.org at least forty-eight (48) hours prior to the scheduled meeting time.

**1.0 ROLL CALL**

**2.0 PLEDGE OF ALLEGIANCE**

**3.0 APPROVAL OF MINUTES**

**3.01** Approval of the minutes for the Board Meeting of July 9, 2021 4

**3.02** Board to approve minutes

**4.0 PUBLIC COMMENT**

**4.01** Follow the steps below to address the Board of Retirement. Speakers are limited to three minutes, and are expected to be civil and courteous.

If joining via Zoom, Public Comment can be made in the following ways:

PC or Mac: select “Participants” in the toolbar at the bottom of your screen, then select the option to raise or lower your hand.

Mobile Device: select the “More” option in the toolbar at the bottom of your screen, then select the option to raise or lower your hand.

Tablet: select the icon labeled “Participants,” typically located at the top right of your screen, then select the hand icon next to your device in the Participants column.

If dialing in from a phone for audio only, dial *9 to “raise your hand.”

Except as otherwise permitted by the Ralph M. Brown Act (California Government Code Sections 54950 et seq.), no deliberation, discussion or action may be taken by the Board on items not listed on the agenda. Members of the Board may, but are not required to: (1) briefly respond to statements made or questions posed by persons addressing the Board; (2) ask a brief question for clarification; or (3) refer the matter to staff for further information.

**5.0 CONSENT ITEMS**

**5.01** Service Retirement (17) 9

05 Institutional Investors July 2021 Institutional Investors Move Further Into Digital Assets 229

**10.0 COMMENTS**

**10.01** Comments from the Board of Retirement

**11.0 CLOSED SESSION**

**11.01** **CONFERENCE WITH LEGAL COUNSEL - ANTICIPATED LITIGATION**
**CALIFORNIA GOVERNMENT CODE SECTION 54956.9(d)(4)**
**Initiation of Litigation - 1 Case**

**12.0 BOARD OF RETIREMENT COMMITTEE ASSIGNMENTS**

**12.01** Chair to review committee assignments and make changes as necessary

**13.0 CALENDAR**

**13.01** Board Meeting September 10, 2021, at 9:00 AM

**14.0 ADJOURNMENT**

# M I N U T E S

**BOARD MEETING**
**SAN JOAQUIN COUNTY EMPLOYEES RETIREMENT ASSOCIATION**
**BOARD OF RETIREMENT**
**FRIDAY, JULY 9, 2021**
**AT 9:00 AM**
Location: Via Zoom

## 1.0 ROLL CALL

**1.01** **MEMBERS PRESENT**: Phonxay Keokham (out at 12:32 p.m.), Emily Nicholas, Jennifer Goodman, Katherine Miller (in at 9:04 a.m., returned from break at 11:28 a.m.), Chanda Bassett (out at 12:01 p.m.), JC Weydert (returned from closed session at 12:36 p.m.), Raymond McCray, and Michael Restuccia presiding

**MEMBERS ABSENT**: Michael Duffy

**STAFF PRESENT**: Chief Executive Officer Johanna Shick, Retirement Investment Officer Paris Ba, Financial Officer Carmen Murillo, Investment Accountant Eve Cavender, Management Analyst III Greg Frank, Department Information Systems Analyst II Lolo Garza, Information Systems Analyst II Jordan Regevig, and Administrative Secretary Kendra Fenner

**OTHERS PRESENT**: Deputy County Counsel Jason Morrish, David Sancewich of Meketa Investment Group, Sean Byrne of Rimon Law and Thomas Dover, Nossaman, LLC.

## 2.0 PLEDGE OF ALLEGIANCE

**2.01** Led by Michael Restuccia

## 3.0 APPROVAL OF MINUTES

**3.01** Approval of the minutes for the Board Meeting of June 4, 2021

**3.02** Approval of the minutes for the Administrative Committee Meeting of June 9, 2021

**3.03** Approval of the Amended Minutes for the Board Meeting of May 7, 2021

**3.04** **The Board voted (5-0) to approve the Minutes of the Board Meeting of June 4, 2021, the Minutes of the Administrative Committee meeting of June 9, 2021 and the amended Minutes of the Board Meeting of May 7, 2021. (Motion: Bassett; Second: Goodman; Abstain: Nicholas and Weydert)**

## 4.0 PUBLIC COMMENT

**4.01** Retired Public Employees of San Joaquin Board President, William Mitchell, explained their process for selection of the nominee for the Alternate Retired Member.

## 5.0 STRATEGIC PLANNING OVERVIEW

**5.01** Presentation by Amy McDuffee, Founder and CEO and Catherine Jackson, Consulting Co-Lead of Mosaic Governance Advisors, LLC.

## 6.0 CONSENT ITEMS

**6.01** Service Retirement (22)

**6.02** **Mid-Year Administrative Budget Update**

## 6.03 Board Administration Policies Not Requiring Amendments

01 Normal Retirement Age - IRC 401(a)

02 Retiree Medical Benefits Accounts - IRC 401(h)

03 Retirement Eligible Compensation

## 6.04 Board Administration Policies Requiring Amendments

01 Annual Additions Limit - IRC 415(c) Policy

- a Proposed revisions to Annual Additions Limit - IRC 415(c) Policy - Mark-up
- b Proposed revisions to Annual Additions Limit - IRC 415(c) Policy - Clean

02 Annual Benefits Limit - IRC 415(b) policy

- a Proposed revisions to Annual Benefit Limit - IRC 415(b) Policy - Mark-up
- b Proposed revisions to Annual Benefit Limit - IRC 415(b) Policy - Clean

03 Compensation Earnable Annual Limit - IRC 401(a)(17) Policy

- a Proposed revisions to Compensation Earnable Annual Limit Policy - IRC 401(a)(17) Policy - Mark-up
- b Proposed revisions to Compensation Earnable Annual Limit Policy - IRC 401(a)(17) Policy - Clean

04 Document and Data Retention Policy

- a Proposed revisions to Document and Data Retention Policy - Mark-up
- b Proposed revisions to Document and Data Retention Policy - Clean

05 Final Compensation Review Policy

- a Proposed revisions to Final Compensation Review Policy - Mark-up
- b Proposed revisions to Final Compensation Review Policy - Clean

06 Required Minimum Distributions - IRC 401(a)(9) Policy

- a Proposed revisions to Required Minimum Distributions - IRC 401(a)(9) Policy - Mark-up
- b Proposed revisions to Required Minimum Distributions - IRC 401(a)(9) Policy - Clean

07 Return to Work and Bona Fide Separation from Service - IRC 401(a) Policy

- a Proposed revisions to Return to Work and Bona Fide Separation from Service - IRC 401(a) Policy - Mark-up
- b Proposed revisions to Return to Work and Bona Fide Separation from Service - IRC 401(a) Policy - Clean

08 Rollovers - IRC 401(a)(31) and 402(c) Policy

- a Proposed revisions to Rollovers - IRC 401(a)(31) and 402(c) Policy - Mark-up
- b Proposed revisions to Rollovers - IRC 401(a)(31) and 402(c) Policy - Clean

## 6.05 Committee Charter Amendments

01 Audit Committee Charter

- a Proposed revisions to Audit Committee Charter - Mark-up b Proposed revisions to Audit Committee Charter - Clean

02 Administrative Committee Charter

a Proposed revisions to Administrative Committee Charter - Mark-up

b Proposed revisions to Administrative Committee Charter - Clean

**6.06** Resolution 2021-07-01 titled “Board Administration Policies and Committee Charter Amendments”

**6.07** **The Board voted unanimously (8-0) to approve consent calendar items, with one verbal requested revision by CEO Shick to 6.04-05: section II.A.1.b. The statement should read, “Frequent use of special pay elements over time which appear to be random.” (Motion: Bassett; Second: Keokham)**

**7.0 BLOCKCHAIN TECHNOLOGY EDUCATION SESSION**

**7.01** Presentation by Mark Yusko, CEO and CIO of Morgan Creek Capital

**7.02** Presentation by Katherine Molnar, CIO of Fairfax County Police Officers Retirement System

**8.0 ALTERNATE RETIRED MEMBER OF THE BOARD**

**8.01** RPESJC letter dated 6/28/2021, regarding Appointment of Alternate Retired Member of the Board of Retirement

**8.02** Board to consider and appoint an Alternate Retired Member of the Board

**8.03** **Trustee McCray made a motion to postpone appointment of the Alternate Retired Member; motion withdrawn after RPESJC representative William Mitchell explained nomination process. Trustee Weydert made a motion to postpone appointment of the Alternate Retired Member; motion not seconded. The Board voted (7-1) to accept and approve RPESJC’s nomination of Steven Moore for the Alternate Retired Member. (Motion: Miller; Second: McCray; Ayes: Keokham, Nicholas, Goodman, Restuccia, Miller, Bassett, McCray; Nays: Weydart)**

**9.0 SELECTION OF VENDOR TO WRITE PENSION ADMINISTRATION SYSTEM RFP**

**9.01** **The Board voted unanimously (7-0) to approve staff’s recommendation**

**10.0 CONSULTANT REPORTS PRESENTED BY DAVID SANCEWICH OF MEKETA INVESTMENT GROUP**

**10.01** **Monthly Investment Performance Updates**

01 Manager Performance Flash Report - May 2021

02 Economic and Market Update - May 2021

**10.02** **Investment Fee Transparency Report**

**10.03** **Fixed Income Manager Search Update**

**10.04** Board to receive and file reports

**11.0 2021 ANNUAL INVESTMENT ROUNDTABLE**

**11.01** Board to review and discuss proposed topics and give direction to staff as necesary

**12.0 STAFF REPORTS**

**12.01** **Pending Retiree Accounts Receivable - Second Quarter 2021**

**12.02 Disability Quarterly Report - Statistics**

**12.03 Legislative Summary Report**

**12.04 Trustee and Executive Staff Travel**

01 Conferences and Events Schedule for 2021

a CALAPRS Principles for Trustees 2021

02 Summary of Pending Trustee and Executive Staff Travel

03 Summary of Completed Trustee and Executive Staff Travel

**12.05 CEO Report**

In addition to the written report, CEO Shick recapped the following topics: 1) San Joaquin County Superior Court made a substantial contribution with the goal of decreasing their portion of the unfunded actuarial liability. The contribution was about 11 percent of their total contribution from 2020; 2) The Cyber-security audit is underway; 3) Congratulations to Marissa Smith on her promotion to Accounting Tech II

**12.06 Board received and filed reports, and voted unanimously (8-0) to approve CEO Shick's verbal travel request to attend the NCPERS Pension Funding Forum, August 22-24, 2021. (Motion: Weydert; Second: McCray)**

## 13.0 CORRESPONDENCE

**13.01 Letters Received**

**13.02 Letters Sent**

**13.03 Market Commentary/Newsletters/Articles**

## 14.0 COMMENTS

**14.01** Trustee Restuccia welcomed back Trustee Weydert to the Board.

**14.02** Trustee McCray recommended soliciting employer feedback as part of the strategic planning process.

**14.03** Trustee McCray stated it was nice to see the 75 year timeline. He thanked SJCERA staff for sharing.

**14.04** Trustee Miller thanked the Board officers for being willing to serve another term.

**14.05** Trustee Goodman asked to be added to the list of attendees for the SACRS Fall Conference and the CALAPRS Virtual Principles of Pension Governance for Trustees.

**14.06** Trustee Goodman asked staff to calculate the Courts extra contributions as a percentage of their share of the unfunded liability.

## 15.0 CLOSED SESSION

**THE CHAIR CONVENED CLOSED SESSION AT 11:55 A.M. AND ADJOURNED THE CLOSED SESSION AND RECONVENED THE OPEN SESSION AT 12:34 P.M.**

**15.01 PURCHASE OR SALE OF PENSION FUND INVESTMENTS
CALIFORNIA GOVERNMENT CODE SECTION 54956.81**

**15.02 PERSONNEL MATTERS
CALIFORNIA GOVERNMENT CODE SECTION 54957
EMPLOYEE DISABILITY RETIREMENT APPLICATION(S) (0)**

**15.03 CONFERENCE WITH LEGAL COUNSEL - ANTICIPATED LITIGATION CALIFORNIA GOVERNMENT CODE SECTION 54956.9(d)(4)**
**Initiation of Litigation - 1 Case**

## 16.0 ELECTIONS OF OFFICERS

**16.01** Board to elect officers for 2021-2022

**16.02** **The Board voted unanimously (6-0) to re-elect Michael Restuccia as Chairperson, Michael Duffy as Vice Chairperson and Raymond McCray as Secretary. (Motion: McCray; Second: Miller)**

## 17.0 CALENDAR

**17.01** Board Meeting August 13, 2021, at 9:00 AM

## 18.0 ADJOURNMENT

**18.01** There being no further business the meeting was adjourned at 12:37 p.m. The Board took a break from 11:17 a.m. until 11:22 a.m.

Respectfully Submitted:

________________________
Michael Restuccia, Chair

Attest:

________________________
Raymond McCray, Secretary

PUBLIC

# San Joaquin County Employees Retirement Association

*August 2021*

## 5.01 Service Retirement — Consent

**01 KRISTA R DOMMER** — Public Hlth Education Assoc I, Public Hlth-Health Education

Member Type: General
Years of Service: 28y 00m 12d
Retirement Date: 7/3/2021

**02 GLORIA A FOX** — Senior Office Assistant, Child Support Svs

Member Type: General
Years of Service: 28y 02m 29d
Retirement Date: 6/30/2021

**03 VIRGINIA GOLDSBY** — Senior Office Assistant, HSA - Clerical Support

Member Type: General
Years of Service: 21y 05m 23d
Retirement Date: 7/2/2021

**04 SHELLY L HART** — Hospital Unit Clerk, Hosp Emergency Room

Member Type: General
Years of Service: 06y 03m 15d
Retirement Date: 6/13/2021

**05 J K HERTELL** — Zoo & Interpretive Srvs Mngr, Parks - Recreation

Member Type: General
Years of Service: 01y 04m 23d
Retirement Date: 6/13/2021
Comments: Outgoing Reciprocity with CalPERS

**06 SHELLY D LAACK** — Substance Abuse Counselor II, Substance Abuse Services

Member Type: General
Years of Service: 18y 01m 20d
Retirement Date: 6/30/2021

**07 JOANN C LEONARD** — Ret Services Technician, Retirement

Member Type: General
Years of Service: 14y 06m 10d
Retirement Date: 7/1/2021
Comments: Outgoing Reciprocity with CalPERS

**08 FRED L LINDSEY** — Housekeeping Service Worker, Hosp Environmental Services

Member Type: General
Years of Service: 14y 01m 13d
Retirement Date: 7/5/2021

**09** **PETER L NGUYEN** — Dept Info Systems Analyst II, Public Defender

Member Type: General
Years of Service: 29y 04m 07d
Retirement Date: 6/26/2021

**10** **MARCUS T OMLIN** — FD 112 HrEmplRate 1 SM NFICA, Waterloo - Morada Rural Fire

Member Type: Safety
Years of Service: 17y 00m 05d
Retirement Date: 6/30/2021

**11** **JOHN J REYES** — DA Investigator II, District Attorney

Member Type: Safety
Years of Service: 13y 11m 02d
Retirement Date: 6/12/2021

**12** **FAYE S ROQUE** — Office Secretary, Hosp Purchasing - Warehouse

Member Type: General
Years of Service: 21y 05m 17d
Retirement Date: 6/15/2021

**13** **SHIRIKI I SILVA** — Housekeeping Service Worker, Hosp Environmental Services

Member Type: General
Years of Service: 08y 08m 17d
Retirement Date: 11/19/2020

**14** **JANICE M SMITH** — Senior Legal Technician, District Attorney

Member Type: General
Years of Service: 36y 03m 22d
Retirement Date: 7/3/2021

**15** **DAVID E UNGER** — Correctional Officer, Sheriff-Custody-Regular Staff

Member Type: Safety
Years of Service: 24y 01m 04d
Retirement Date: 6/11/2021

**16** **DARIA WILLIAMS** — Accounting Technician II, Auditor - Controller

Member Type: General
Years of Service: 13y 09m 20d
Retirement Date: 6/19/2021

**17** **RICHARD E WILLIAMS** — Correctional Officer, Sheriff-Custody-Regular Staff

Member Type: General
Years of Service: 01y 08m 07d
Retirement Date: 6/21/2021
Comments: General Service Retirement

# Board of Retirement Meeting
**San Joaquin County Employees' Retirement Association**

## Agenda Item 6.0

**August 13, 2021**

## SUBJECT: Actuarial Report and 2022 Retirement Contribution Rates

## SUBMITTED FOR: __ CONSENT _X_ ACTION ___ INFORMATION

## RECOMMENDATION

Staff recommends that the Board of Retirement:

1. Accept and file the final Annual Actuarial Valuation Report as of January 1, 2021, as prepared by Cheiron, and approve the employer and member contribution rates for calendar year 2022 presented therein.
2. Approve Resolution 2021-08-01 titled "Actuarial Report and 2022 Retirement Contribution Rates," which implements these recommendations.

## PURPOSE

The primary purpose of the actuarial valuation is to measure, describe, and identify the following:

- SJCERA's financial condition
- Past and expected trends in SJCERA's financial progress
- Assessment and disclosure of key risks
- Employer and employee contribution rates for the Plan Year 2022

## DISCUSSION

The January 1, 2021 valuation is calculated using the assumptions identified in Appendix B, including a 7.0 percent discount rate assumption, which the Board elected to maintain at its February 12, 2021 meeting.

### Financial Condition

The funded ratio based on the Market Value of Assets (MVA) increased from 64.7 percent last year to 68.1 percent this year. The funded ratio based on the Actuarial Value of Assets (AVA) increased from 64.3 percent to 66.9 percent.

The Unfunded Actuarial Liability (UAL) is the excess of actuarial liability over the AVA. The UAL decreased $64.5 M (3.61 percent) from $1,787,533,324 last year to $1,723,031,711 this year.

The December 31, 2020 market value return on plan assets was 8.5 percent compared to the 7.0 percent assumption, resulting in a market value gain on investments of $49,012,701. However, after applying the five-year smoothing of asset gains and losses, the return was 7.28 percent on the smoothed value of assets, an actuarial asset gain of $8,799,951.

## Historical Trends

SJCERA's net cash flow (contributions less benefit payments and administrative expenses) was negative from 2011 to 2016, but has been positive the past four years due to the increase in the contribution rates and the additional contributions being made by the County and other employers.

## Assets and Liabilities

The AVA (smoothed) funded ratio has declined from 69.9 percent in 2012 to 66.9 percent in 2021. The extraordinary asset loss of 2008 adversely affected the funded ratio through 2013. In addition, for 2013, 2016, 2018, and 2020 valuations, assumption changes (including lowering the assumed rate and addressing improved mortality) decreased the funded ratio. The 7.28 percent smoothed return this year was higher than the assumed rate for the first time since 2014.

## Employer and Employee Contribution Rates

Employer contribution rates will increase in 2022. The two primary drivers are (1) the three-year phase-in of the UAL payment resulting from lowering the assumed rate from 7.25 percent to 7.0 percent and (2) payroll growth lagging behind the actuarial assumptions. As a result, the employer contribution rate increased by 0.91 percent of pay (about $11.3 million). Rates are shown below.

| CONTRIBUTION TYPE | | 2022 | | | | 2021 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Contribution rates as a percentage of Active Member Payroll | | | | | | | |
| | | TIER 1 | | | TIER 2 | TIER 1 | | | TIER 2 |
| | | Members Pay Basic Rate Only | Members Pay Basic w/ COLA Cost Share | Members Pay Basic w /COLA Cost Share Plus[1] | | Members Pay Basic Rate Only | Members Pay Basic w/COLA Cost Share | Members Pay Basic w/COLA Cost Share Plus[1] | |
| **Employer** | General | 50.42% | 47.53% | 46.97% | 40.59% | 49.50% | 46.59% | 46.03% | 39.62% |
| | Safety | 96.50% | 91.42% | 89.80% | 79.15% | 94.15% | 89.07% | 87.45% | 76.74% |
| | **Composite** | **59.33%** | **56.01%** | **55.24%** | **44.89%** | **57.96%** | **54.64%** | **53.88%** | **43.69%** |
| **Member[2]** | General | 2.95%-5.37% | 5.01%-9.45% | 5.43%-10.20% | 9.99% | 2.95%-5.37% | 5.01%-9.45% | 5.43%-10.20% | 9.97% |
| | Safety | 4.45%-6.78% | 9.13%-13.37% | 10.60%-15.61% | 15.45% | 4.45%-6.78% | 9.13%-13.37% | 10.60%-15.61% | 15.46% |

1. *"Plus" refers to additional contributions members have agreed to pay (up to 14% of the Basic General Member Contribution Rate, and 33% of the Basic Safety Member Contribution Rate).*
2. *Tier 1 member contribution rates vary by entry age; Table presents the range.*

Upon the Board's adoption of proposed Resolution 2021-08-01, staff will transmit the Retirement Contribution Rates for 2022 to each of our participating employers at least 45 days before the effective date of the new rates for formal adoption by their respective Boards.

## ATTACHMENTS

Actuarial Valuation Report as of January 1, 2021
Resolution 2021-08-01, entitled “Actuarial Report and 2022 Retirement Contribution Rates”

J Shick
JOHANNA SHICK
Chief Executive Officer

Greg Frank
GREG FRANK
Management Analyst III

# San Joaquin County Employees' Retirement Association

## Actuarial Valuation Report as of January 1, 2021

**Produced by Cheiron**

**August 2021**

# TABLE OF CONTENTS

August 5, 2021

Retirement Board of San Joaquin
County Employees' Retirement Association
6 South El Dorado Street, Suite 400
Stockton, CA 95202

Dear Members of the Board:

At your request, we have conducted an actuarial valuation of the San Joaquin County Employees' Retirement Association (SJCERA, the System, the Fund, the Plan) as of January 1, 2021. This report contains information on the System's assets and liabilities and discloses employer and employee contribution levels. It also contains schedules for inclusion in the Actuarial Section of the Annual Financial Report. Your attention is called to the Foreword in which we refer to the general approach employed in the preparation of this report.

The purpose of this report is to present the results of the annual actuarial valuation of SJCERA. This report is for the use of the Retirement Board of SJCERA and its auditors in preparing financial reports in accordance with applicable law and accounting requirements.

Cheiron's report was prepared solely for the Retirement Board of SJCERA for the purposes described herein, except that the plan auditor may rely on this report solely for the purpose of completing an audit related to the matters herein. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.

This report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

Sincerely,
Cheiron

Graham A. Schmidt, ASA, FCA, MAAA, EA
Consulting Actuary

Anne D. Harper, FSA, MAAA, EA
Principal Consulting Actuary

## SECTION I – EXECUTIVE SUMMARY

Cheiron has performed the actuarial valuation of the San Joaquin County Employees' Retirement Association as of January 1, 2021. The valuation is organized as follows:

- In Section I, the **Executive Summary,** we describe the purpose of an actuarial valuation, summarize the key results found in this valuation and disclose important trends.

- The **Main Body** of the report presents details on the System's
  - Section II – Identification and Assessment of Risks
  - Section III – Assets
  - Section IV – Liabilities
  - Section V – Contributions
  - Section VI – Additional Financial Report Schedules

- In the **Appendices,** we conclude our report with detailed information describing plan membership (Appendix A), actuarial assumptions and methods employed in the valuation (Appendix B), a summary of pertinent plan provisions (Appendix C), a 401(h) repayment schedule (Appendix D), a glossary of key actuarial terms (Appendix E), a summary of General and Safety Employer contribution rates (Appendix F), and tables containing member contribution rates (Appendix G).

Future results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the assumptions; changes in assumptions; and changes in plan provisions or applicable law.

Cheiron utilizes ProVal actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have a basic understanding of ProVal and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this valuation.

Deterministic and stochastic projections in this valuation report were developed using R-scan, a proprietary tool used to illustrate the impact of changes in assumptions, methods, plan provisions, or actual experience (particularly investment experience) on the future financial status of the Plan. R-scan uses standard roll-forward techniques that implicitly assume a stable active population. Because R-scan does not automatically capture how changes in one variable affect all other variables, some scenarios may not be consistent.

This report does not contain any adjustment for the potential impact of COVID-19, other than the impact on plan membership and assets through the valuation date. We anticipate the virus will affect both demographic and economic experience. In preparing our report, we relied on information (some oral and some written) supplied by the SJCERA staff. This information includes, but is not limited to, plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

## SECTION I – EXECUTIVE SUMMARY

The primary purpose of the actuarial valuation and this report is to measure, describe, and identify the following as of the valuation date:

- The financial condition of the System,
- Past and expected trends in the financial progress of the System,
- Employer and employee contribution rates for Plan Year 2022, and
- An assessment and disclosure of key risks.

The information required under GASB standards Nos. 67 and 68 is included in a separate report, with the report for the Plan's Fiscal Year Ending December 31, 2020 provided to SJCERA in May 2021, and revised in June 2021.

In the balance of this Executive Summary, we present (A) the basis upon which this year's valuation was completed, (B) the key findings of this valuation including a summary of key financial results, (C) an examination of the historical trends, and (D) the projected financial outlook for the System.

## A. Valuation Basis

This valuation determines the employer contributions for the Plan Year 2022. The System's funding policy is to contribute an amount equal to the sum of:

- The normal cost under the Entry Age Normal Cost Method,
- Amortization of the Unfunded Actuarial Liability (UAL), and
- A portion of the Fund's expected administrative expenses.

At the July 24, 2015 board meeting, the SJCERA Board of Retirement made a change to the funding policy, choosing to amortize any unexpected new changes in the UAL over a period of 15 years as a level percentage of payroll, with new amortization layers each year. The amortization period for each layer of the remaining UAL will decrease each year. Prior to this change, all UAL, other than the extraordinary loss from 2008, was being amortized over a closed period of 19 years as a level percentage of member payroll. The extraordinary loss from 2008 is amortized over a closed period of 30 years starting in 2009, as a level percentage of payroll. At the February 14, 2020 board meeting, the SJCERA Board of Retirement chose to phase-in the impact of the January 1, 2020 economic assumption changes to the UAL over a period of three years, followed by 12 years of payments as a level percentage of payroll. The single equivalent amortization period for the aggregate stream of UAL payments is 14 years. Tables V-4 and V-5 show a detailed summary of each amortization layer for General and Safety, respectively.

This valuation was prepared based on the plan provisions shown in Appendix C. There have been no changes in plan provisions since the prior valuation reflected in the valuation. Subsequent to the valuation date, the Board approved the creation of Tier 2B for new members hired after January 1, 2022, but the creation of this Tier does not have any impact on the current valuation results. There have been no assumption changes since the prior valuation.

## B. Key Findings of this Valuation

The key results of the January 1, 2021 actuarial valuation are as follows:

- The actuarially determined employer contribution rate increased from 49.82% to 50.51%.

- The System's funded ratio, the ratio of assets over Actuarial Liability, increased from 64.3% last year to 67.0% as of January 1, 2021 on an Actuarial Value of Assets (AVA) basis. It increased from 64.7% to 68.1% on a Market Value of Assets (MVA) basis.

- The Unfunded Actuarial Liability (UAL) is the excess of the System's Actuarial Liability over the Actuarial Value of Assets. The System experienced a decrease in the UAL from \$ 1,787,533,324 to \$ 1,720,244,780 as of January 1, 2021.

- During the year ending December 31, 2020, the return on Plan assets was 8.50% on a market value basis, as compared to the 7.00% assumption. This resulted in a market value gain on investments of \$49,012,701. The Actuarial Value of Assets recognizes 20% of the difference between the expected Actuarial Value of Assets and the Market Value of Assets. This method of smoothing the asset gains and losses returned 7.28% on the smoothed value of assets, an actuarial asset gain of \$8,799,951 for the year.

- The Actuarial Value of Assets is currently 98% of the market value. Since actuarial assets are below market assets, there are unrecognized investment gains (approximately \$59 million) that will be reflected in the smoothed value in future years.

- Contributions to the System (excluding the additional voluntary contributions described below) were less than the actuarial cost for the year, due to the 12 month-delay in the implementation of the contribution rates and lower than expected payroll. This shortfall increased the UAL by \$21,119,423.

- The System experienced a gain on the Actuarial Liability of \$11,060,850 primarily due to lower than expected salary growth and more deaths than expected. The contribution shortfall exceeded the combined liability and asset gains, resulting in a total loss of \$1,258,622.

- During 2020, the County, the Mosquito and Vector Control District (MVCD), and the Superior Court of California County of San Joaquin made additional voluntary contributions (above the actuarially determined amount) of \$22,089,251. The total market value of the additional contributions, including prior year amounts and accumulated with interest at the Plan's actual rate of return, was \$97,140,039 as of December 31, 2020. These assets are included in the calculation of the UAL and funded ratio. However, under the funding policy with respect to these reserves requested by the contributors and approved by the Board, these assets are not currently included in the calculation of the employer contribution rates.

## SECTION I – EXECUTIVE SUMMARY

Table I-1 below summarizes all the key results of the valuation with respect to membership, assets and liabilities, and contributions. The results are presented and compared for both the current and prior plan year.

**TABLE I-1**
**Summary of Principal Plan Results**

| | January 1, 2020 | January 1, 2021 | % Change |
|---|---|---|---|
| **Participant Counts** | | | |
| Active Participants | 6,369 | 6,350 | -0.30% |
| Participants Receiving a Benefit | 6,208 | 6,361 | 2.46% |
| Terminated Vested Participants | 1,012 | 1,223 | 20.85% |
| Terminated Non-Vested Participants | 934 | 942 | 0.86% |
| **Total** | **14,523** | **14,876** | **2.43%** |
| | | | |
| Annual Pay of Active Members | $ 478,458,307 | $ 489,490,258 | 2.31% |
| Calendar Year Projected Pay | $ 485,582,148 | $ 496,778,356 | 2.31% |
| | | | |
| **Assets and Liabilities** | | | |
| Actuarial Liability (AL) | $ 5,013,632,466 | $ 5,207,669,301 | 3.87% |
| Actuarial Value of Assets (AVA)[1] | 3,226,099,142 | 3,487,424,521 | 8.10% |
| Unfunded Actuarial Liability (UAL) | $ 1,787,533,324 | $ 1,720,244,780 | -3.76% |
| Funded Ratio (AVA) | 64.3% | 67.0% | 2.7% |
| Funded Ratio (MVA)[2] | 64.7% | 68.1% | 3.4% |
| Inactive Funded Ratio | 66.3% | 67.4% | 1.1% |
| | | | |
| **Contributions as a Percentage of Payroll** | | | |
| Normal Cost Rate | 15.04% | 14.58% | -0.46% |
| Unfunded Actuarial Liability Rate[3] | 33.92% | 35.07% | 1.15% |
| Administrative Expense | 0.86% | 0.86% | 0.00% |
| Total Contribution Rate | 49.82% | 50.51% | 0.69% |

[1] Includes additional County, MVCD, and Superior Court Contribution Reserves.

[2] The Market Value of Assets includes additional County, MVCD, and Superior Court Contribution Reserves.

[3] Based on Actuarial Value of Assets that does not include additional County, MVCD, and Superior Court Contribution Reserves.

The Inactive Funded Ratio shown in Table I-1 represents the percentage of the Actuarial Liability attributable to members who are not active employees. A funded ratio of 67.4% or more, for example, is required just to fund the liabilities of the System's inactive members: those currently retired, disabled, terminated with vested benefits, and their beneficiaries.

# SECTION I – EXECUTIVE SUMMARY

## Changes in Cost

Table I-2 below summarizes the impact of actuarial experience on Plan cost, for the Plan as a whole and for the General and Safety classes.

**TABLE I-2**
**Summary of Changes in Plan Cost from Prior Review**

| | General Employer Cost | General Employer Contribution Rate (% Payroll) | Safety Employer Cost | Safety Employer Contribution Rate (% Payroll) | Total Employer Cost | Employer Contribution Rate (% Payroll) |
|---|---|---|---|---|---|---|
| **January 1, 2020** | $ **173,463,288** | **43.24%** | $ **63,105,081** | **85.67%** | $ **236,568,369** | **49.82%** |
| Change in Cost Due to: | | | | | | |
| Expected Change | 8,197,485 | 0.77% | 3,117,307 | 1.70% | 11,314,792 | 0.91% |
| Asset Experience | (528,643) | ( 0.12%) | (253,055) | ( 0.33%) | (781,698) | ( 0.16%) |
| Contribution (Gain)/Loss | 1,370,015 | 0.32% | 555,814 | 0.72% | 1,925,829 | 0.39% |
| Demographic Experience | 80,461 | ( 0.04%) | (749,298) | ( 1.14%) | (668,837) | ( 0.23%) |
| Salary Experience | (1,016,571) | ( 0.17%) | (174,140) | 0.01% | (1,190,711) | ( 0.14%) |
| Payroll Amortization | 0 | 0.19% | 0 | 0.60% | 0 | 0.24% |
| PEPRA Transition | (1,127,455) | ( 0.29%) | (345,644) | ( 0.48%) | (1,473,099) | ( 0.32%) |
| **Total Cost as of January 1, 2021** | $ **180,438,580** | **43.90%** | $ **65,256,065** | **86.75%** | $ **245,694,645** | **50.51%** |

An analysis of the cost changes from the prior valuation reveals the following:

- Contributions were expected to increase, both in dollars and as a percentage of payroll.

  Contributions are expected to increase as payroll grows, both from increases in the Normal Cost and since the UAL is amortized as a level percentage of payroll. The contribution rate (and resulting dollar amount) was also expected to grow this year as a result of the three-year phase-in of the UAL payment for the change in assumptions (specifically, the reduction in the discount rate from 7.25% to 7.00%) enacted by the Board in 2020.

- Demographic experience was somewhat favorable.

  The demographic experience of the Plan – rates of retirement, death, disability, and termination – was close to that predicted by the actuarial assumptions in aggregate, reducing the overall employer rate by 0.23% of pay.

  There were more deaths than expected among those in pay status among retirees and their surviving spouses, which decreased their liabilities. The net impact of these and other unexpected demographic changes was reductions of 0.04% and 1.14% of payroll for General and Safety, respectively. Overall employer cost decreased by 0.23% of payroll.

## SECTION I – EXECUTIVE SUMMARY

- Overall pay increases for returning General members were below expectations.

  Salaries for continuing General members increased less than expected, decreasing the employer contribution rate for General members by 0.17% of payroll, and 0.14% of overall payroll.

  However, salaries for continuing Safety members were close to the assumption, with small losses that increased the rate by 0.01% of payroll.

- The unfunded liability is being amortized over a smaller-than-expected payroll base for the General members and Safety members.

  The payroll used to amortize the unfunded liability for General members was lower than expected due to lower than expected payroll growth (2.36%, versus the 3.00% assumption), which increased the General employer contribution rate by an additional 0.19% of pay, since the UAL payments are spread out over a lower payroll base than expected. The lower than expected Safety projected payroll (reflecting a 2.03% increase) resulted in an increase in the contribution rate by about 0.60% of pay.

  The aggregate impact from the change in total projected payroll was an increase in the contribution rate of 0.24% of pay. Note that the change in the payroll base used to amortize the unfunded liability does not change the dollar amount of the contribution – only the contribution rate calculated as a percentage of payroll.

- New members entered the Plan as PEPRA members.

  During 2020, 633 newly hired or rehired members entered the Plan to replace departing members. New Tier 2 hires have a smaller Plan normal cost as a percentage of payroll when compared to the legacy (Tier 1) members.

  Due to the shift in both populations towards more Tier 2 members, the employer contribution rate decreased by 0.29% of payroll for General members, 0.48% of payroll for Safety members, and the overall contribution rate dropped by 0.32% of payroll.

  In addition, different bargaining groups continue to negotiate modifications to the cost sharing arrangements for their Legacy members. The valuation results reflect the arrangements in place as of the valuation date that apply to the 2022 Plan Year. Changes to the cost sharing arrangements occurring after the valuation date will affect the aggregate employer costs in future valuations.

- Asset experience produced an investment gain on a market basis and on a smoothed basis.

## SECTION I – EXECUTIVE SUMMARY

The assets of the Plan returned 8.50% on a market basis, higher than the assumed rate of 7.00%, resulting in a gain of approximately $49 million for 2020. Under the actuarial asset smoothing policy, 20% of this gain is recognized in the current year, in addition to 20% of the gains and losses from each of the prior three years. The overall return on the smoothed assets was 7.28%; higher than the assumed return of 7.00%, so the overall contribution rate decreased by 0.16% of payroll.

The contribution rate decreased more for Safety members (by 0.33% of payroll) than for General members (0.12% of payroll) as a result of the asset gain; this is due to the fact that the Safety members have a higher ratio of assets to payroll than the General members, and is discussed further in this report.

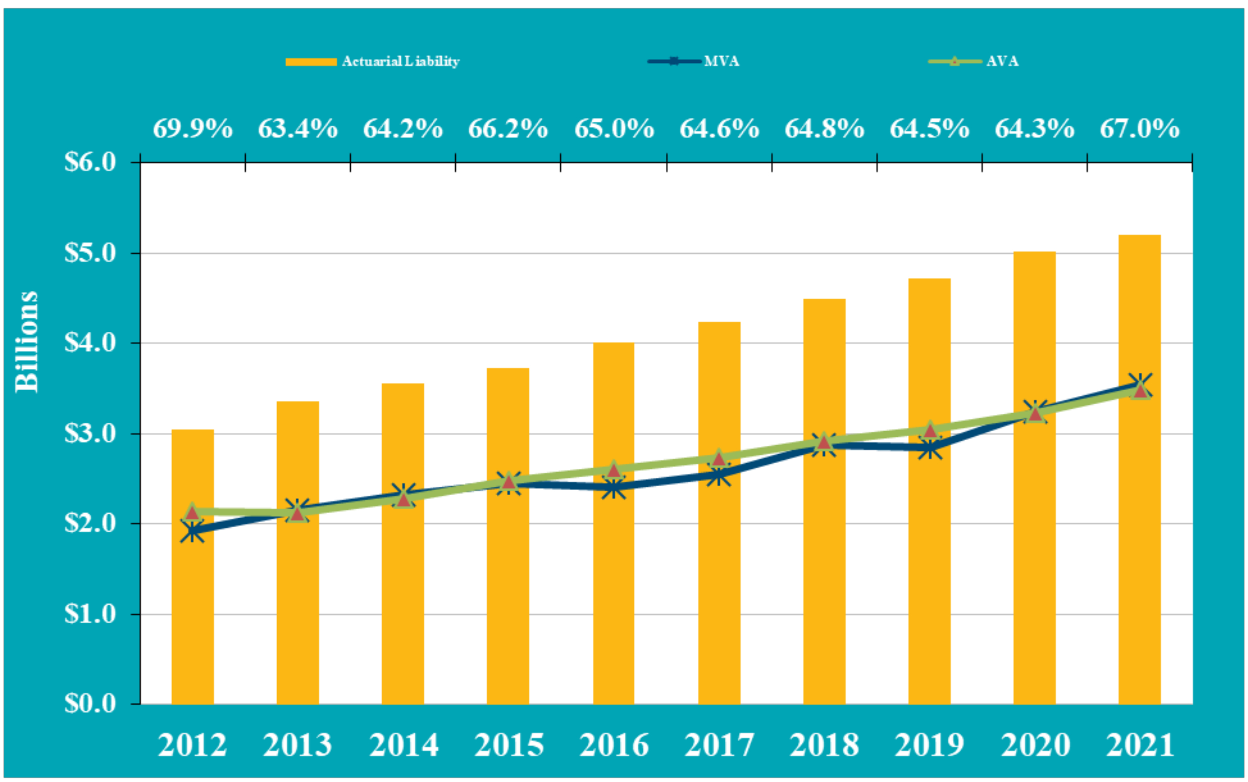
- Contributions less than the actuarial cost increased the employer contribution rate by 0.39% of pay, largely due to the 12-month delay in implementation of the contribution rates and a shortfall in actual versus projected payroll.

## C. Historical Trends

Despite the fact that for most retirement plans the greatest attention is given to the current valuation results and in particular, the size of the current Unfunded Actuarial Liability and the employer contribution, it is important to remember that each valuation is merely a snapshot in the long-term progress of a pension fund. It is more important to judge a current year's valuation result relative to historical trends, as well as trends expected into the future.

### Assets and Liabilities

The chart on this page compares the Market Value of Assets (MVA) and Actuarial Value of Assets (AVA) to the Actuarial Liabilities. The percentage shown at the top of each bar is the ratio of the Actuarial Value of Assets to the Actuarial Liability (the funded ratio).

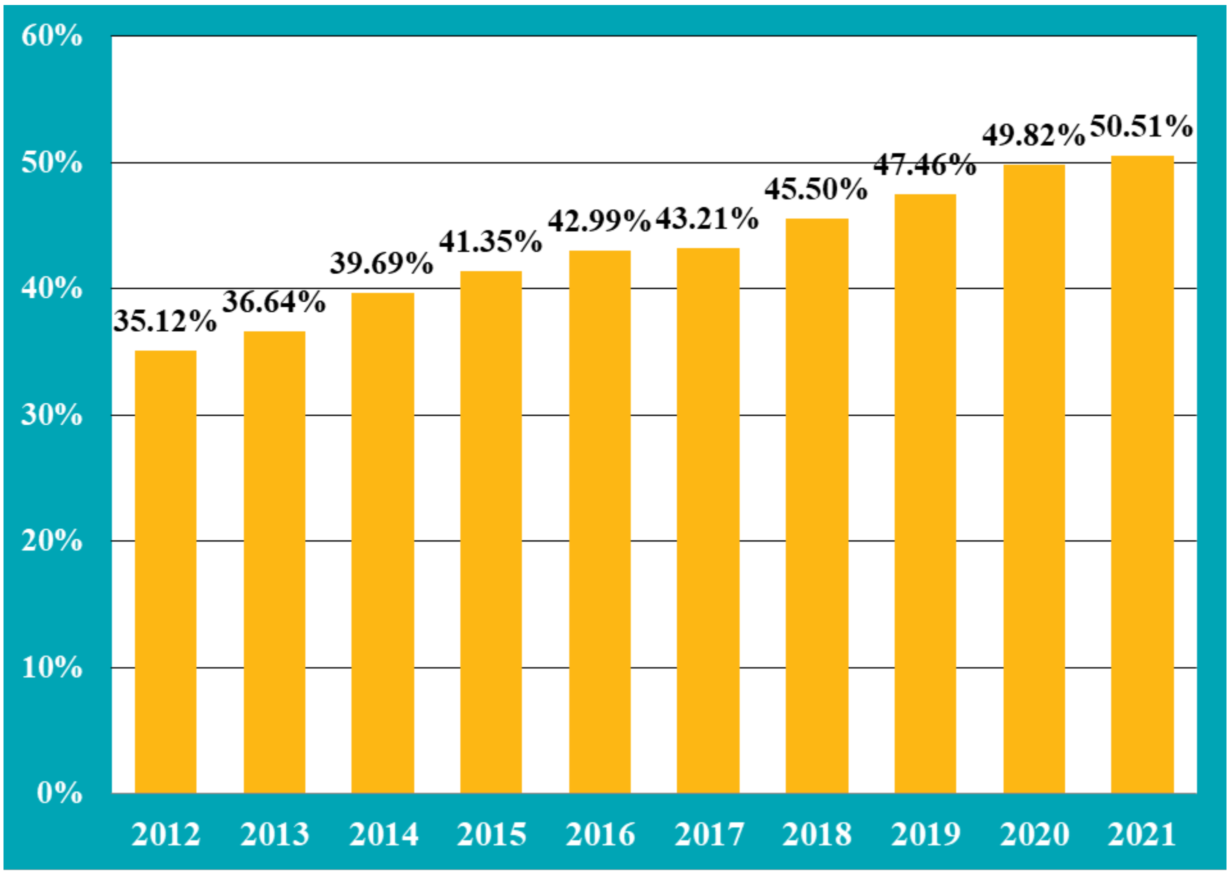



The funded ratio has declined from 69.9% in 2012 to 67.0% in 2021. The extraordinary asset loss of 2008 adversely affected the funded ratio through 2013, as losses were recognized with asset smoothing. In addition, for the 2013, 2016, 2018, and 2020 valuations, assumption changes were made that reflected lower expected future returns on assets and improved mortality, increasing the Actuarial Liability, and therefore decreasing the funded ratio. The return on the Actuarial Value of Assets from 2015 to 2020 has been between 3.9%-5.6%, lower than the assumed rate of return, which has also contributed to the Plan's lack of funding progress. The 7.28% return this year was higher than the assumed rate of return for the first time since 2014.

## SECTION I – EXECUTIVE SUMMARY

**Employer Contribution Rates**

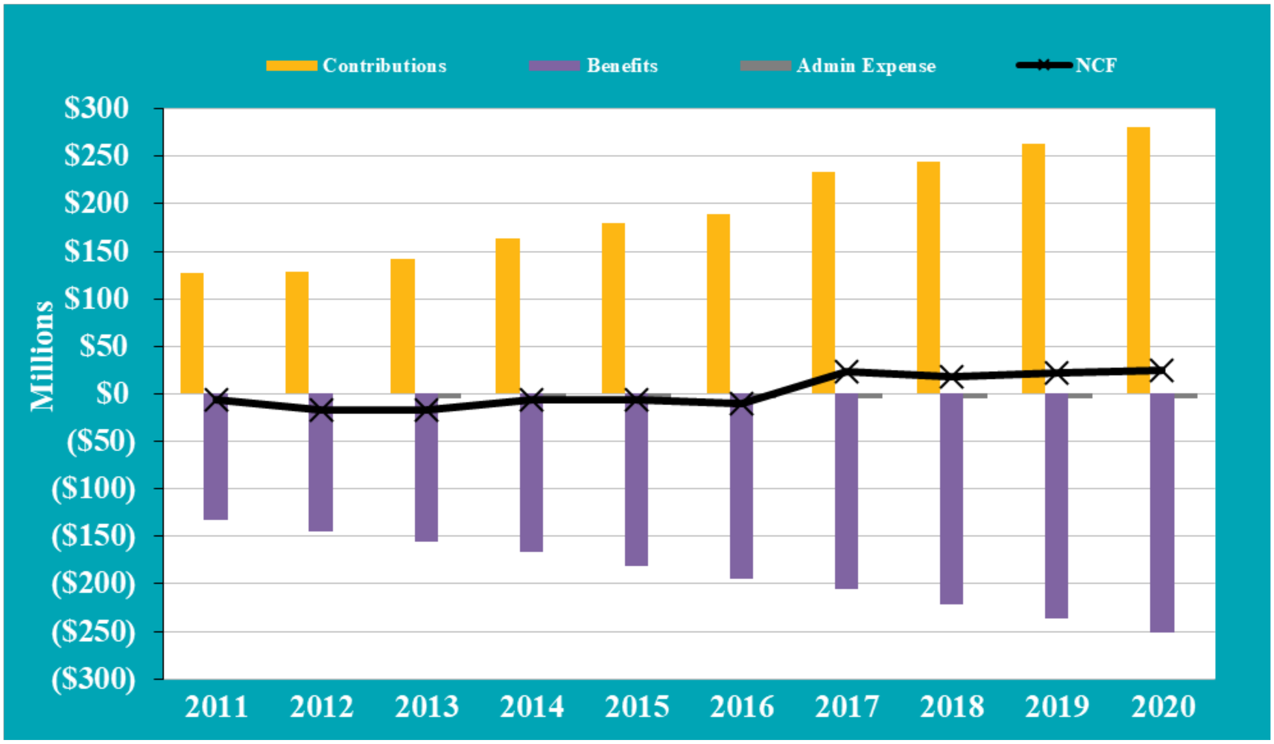
The chart on this page shows the employer contribution rate for each of the last 10 valuation cycles. The same factors that contributed to the decline and subsequent lack of progress in funded status – i.e., lower returns and assumptions that are more conservative – have resulted in increases in contribution rates. Rates have also increased due to growth in payroll lagging behind the actuarial assumptions, which spreads the UAL dollar payment over a smaller payroll base.



## SECTION I – EXECUTIVE SUMMARY

### Cash Flows

The chart below shows the Plan's net cash flow (NCF) (contributions less benefit payments and administrative expenses). This is an important measure, as it reflects the ability to have funds available to meet benefit payments without having to make difficult investment decisions, especially during volatile markets.




The NCF – shown as the black line in the chart – was slightly negative for the first six years shown in this period but has been positive the past four years due to the increase in the contribution rates and the additional contributions being made by the County and other employers.

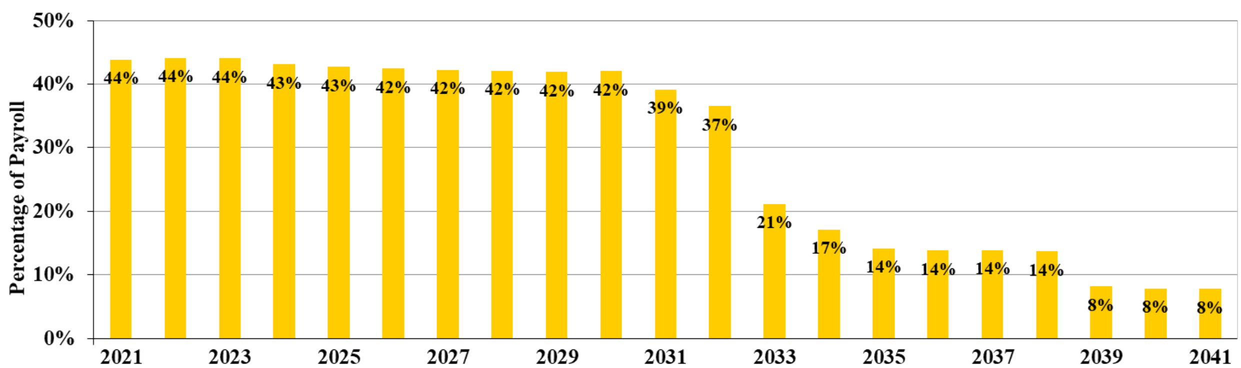
The implications of a plan with negative net cash flow are that the impact of market fluctuations can be more severe: as assets are being depleted to pay benefits in down markets, there is less principal available to be reinvested during favorable return periods. If there were a shift to future negative net cash flow, it could magnify the losses during a market decline, hindering the Plan in its ability to absorb market fluctuations.

## D. Future Expected Financial Trends

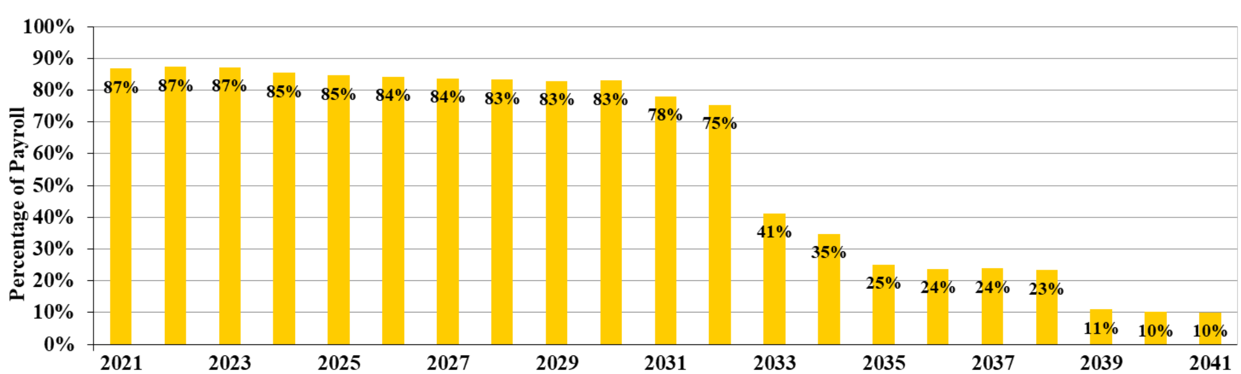
The analysis of projected financial trends is perhaps the most important component of this valuation. In this section, we present our assessment of the implications of the January 1, 2021 valuation results in terms of cost and benefit security (assets over liabilities). All the projections in this section are based on the interest rate assumption of 7.00%. We have assumed a level active workforce population and future payroll growth of 3.00% per year.

The following graphs show the expected employer contribution rates for General and Safety members, and for the Plan in aggregate, based on actually achieving the 7.00% assumption each year for the next 20 years, and if the employers contribute at the actuarially determined rates.

**Projection of General Employer Contributions, 7.00% return each year**

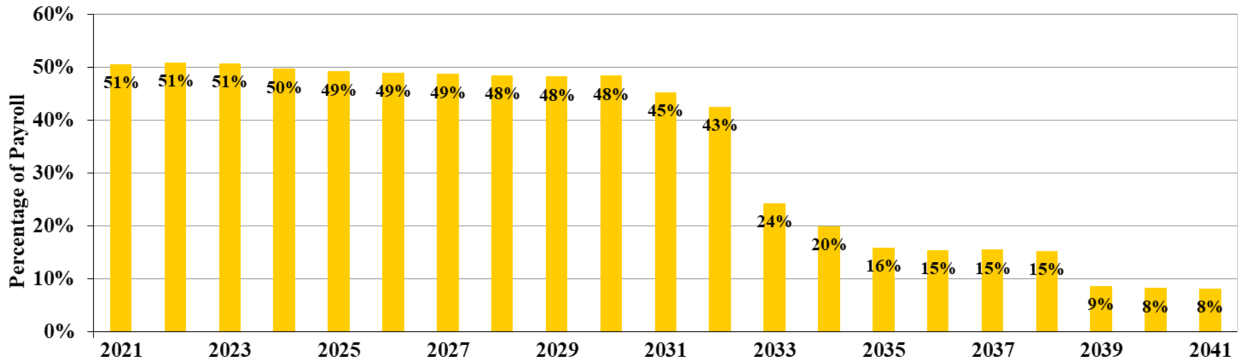



**Projection of Safety Employer Contributions, 7.00% return each year**



## SECTION I – EXECUTIVE SUMMARY

**Projection of Total Employer Contributions, 7.00% return each year**




The projections show that General, Safety and Total County contributions are expected to slightly increase next year, as the impact of the reduction of the discount rate is completely phased in with the 2022 valuation. The dollar contribution will be approximately $182 million for General and $65 million for Safety in 2021, growing to around $208 million for General and $77 million for Safety in five years, then remaining relatively flat as a percentage of payroll until 2033, when the 2014 UAL is paid off. The slight decline in contribution rates from 2023-2032 is attributable to the recognition of net deferred asset gains, Tier 2 new hires that are expected to replace existing Tier 1 membership, as well as the expiration of other UAL amortization layers.

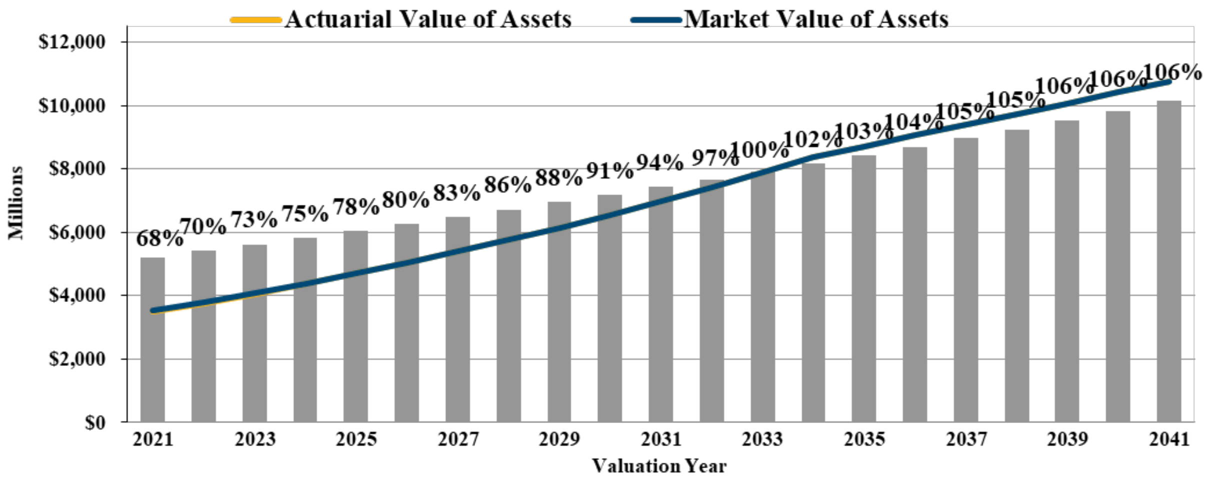
Note that the all the contribution projections do not forecast any actuarial gains or losses (except for net deferred gains on the Market Value of Assets). Even modest losses relative to the 7.00% assumed return could push the employer contribution rates even higher in the next few years. The graphs also do not include the impact of the additional contributions currently being made by the County, the Mosquito and Vector Control District, and the Superior Court; those additional contributions would eventually be expected to be available to reduce the employer contributions in future years.

## SECTION I – EXECUTIVE SUMMARY

**Asset and Liability Projections:**

The graph below shows the projection of SJCERA's assets and liabilities assuming that assets will earn the 7.00% assumption each year during the projection period and the employers contribute at the actuarially determined rates.

**Projection of Assets and Liabilities, 7.00% return each year**



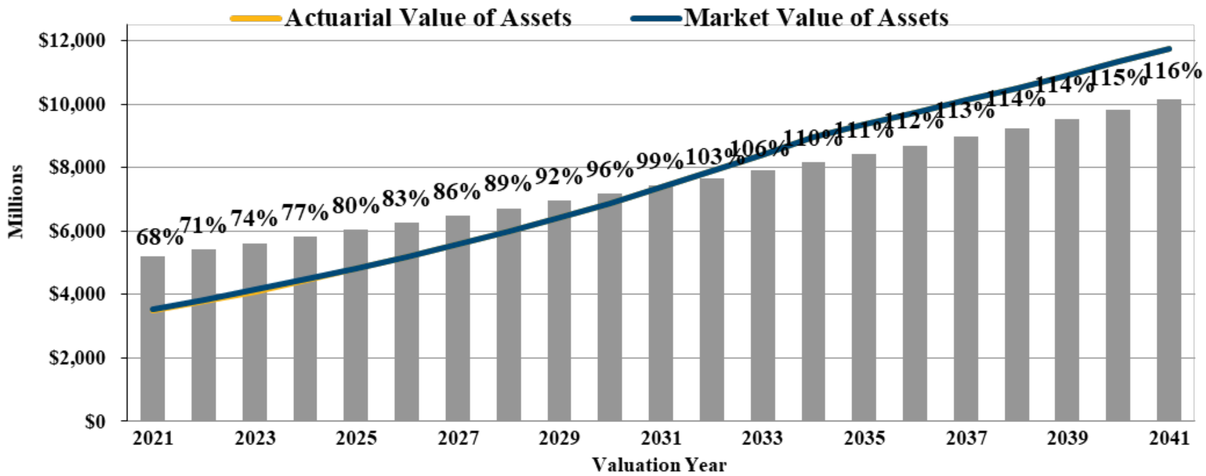

The graph shows that the projected funded status on a market value basis increases over the next 20 years to 106%, assuming the actuarial rate of return assumption is achieved. However, as noted above, it is the actual return on System assets that will determine the future funding status and contribution rates to the Fund.

The assets in the graph above include the additional contributions that the County (2017-2020), the Mosquito and Vector Control District (2018-2020), and Superior Court (2019-2020) made to the fund. No further additional contributions are assumed. However, the additional contribution reserves continue to grow at the 7.00% assumed rate of return and are not used in the calculation of the actuarially determined contribution rates, which results in the projected funded status exceeding 100%. If these reserves are eventually used to offset the required contributions for these employers, the Plan would not expect to become overfunded.

The graph on the next page shows the same information as the previous graph and assumes that additional contributions of 5% of SJCERA payroll are made until the System's funded ratio reaches 100%. Although the Mosquito and Vector Control District and the Superior Courts have been making additional contributions at different rates, and other employers are not currently making additional contributions, we note that the County has been making additional contributions of approximately 5% per year and makes up the vast majority of overall payroll and these additional contributions are for illustrative purposes only. No change in the contribution rate is assumed due to the additional contributions; these assets continue to be excluded from the actuarial cost calculation, as noted earlier.

## SECTION I – EXECUTIVE SUMMARY

**Projection of Assets and Liabilities, 7.00% return each year, Ongoing County Additional 5% Contributions**




As can be seen in the projection above, with the additional expected 5% of pay contributions from the Plan would be expected to return to full funding in 2032, one year earlier than expected in the projections without the additional future contributions.

## SECTION II – DISCLOSURES RELATED TO RISK

Actuarial valuations are based on a set of assumptions about future economic and demographic experience. These assumptions represent a reasonable estimate of future experience, but actual future experience will undoubtedly be different and may vary significantly. This section of the report is intended to identify the primary risks to the Plan, provide some background information about those risks, and provide an assessment of those risks.

### Identification of Risks

A fundamental risk to a pension plan is that the contributions needed to pay the benefits become unaffordable. While we believe it is unlikely that the Plan by itself would become unaffordable, the contributions needed to support the Plan may differ significantly from expectations. While there are a number of factors that could lead to contribution amounts deviating from expectations, we believe the primary risks are:

- Investment risk,
- Assumption change risk, and
- Contribution and payroll risk.

Other risks that we have not identified may also turn out to be important.

*Investment Risk* is the potential for investment returns to be different than expected. Lower investment returns than anticipated will increase the unfunded actuarial liability necessitating higher contributions in the future unless there are other gains that offset these investment losses. The potential volatility of future investment returns is determined by the Plan's asset allocation and the affordability of the investment risk is determined by the amount of assets invested relative to the size of the plan sponsors or other contribution base.

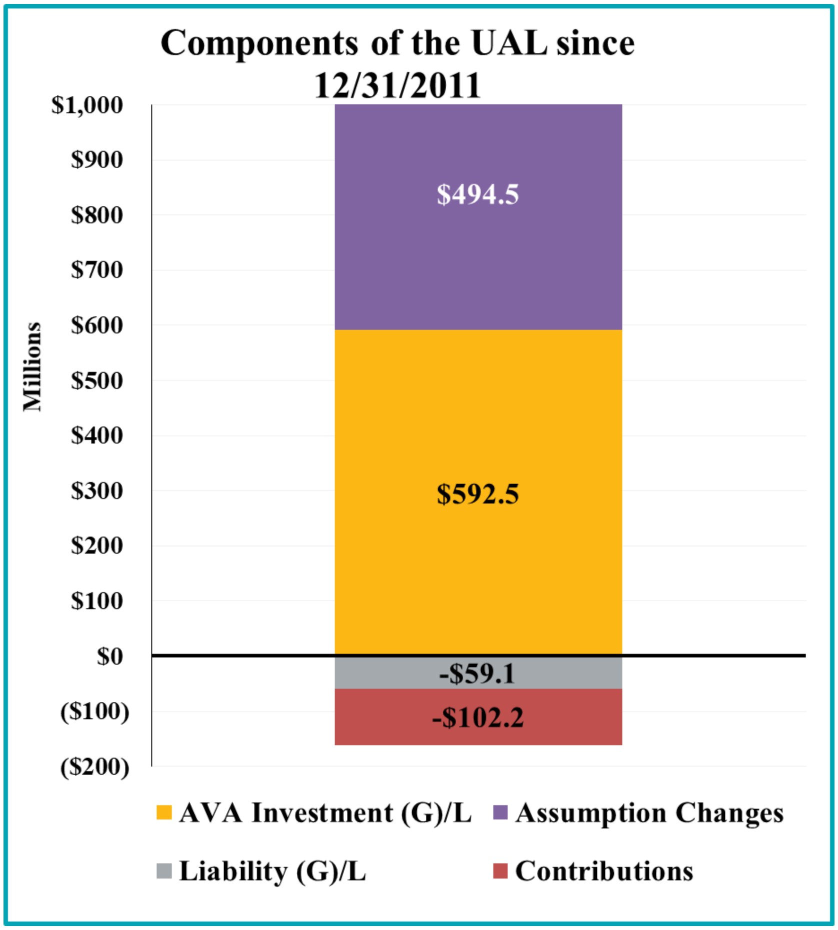
*Assumption change risk* is the potential for the environment to change such that future valuation assumptions are different than the current assumptions. For example, declines in interest rates over the last three decades resulted in higher investment returns for fixed income investments, but lower expected future returns necessitating either a change in investment policy, a reduction in discount rate, or some combination of the two. Assumption change risk is an extension of the other risks identified, but rather than capturing the risk as it is experienced, it captures the cost of recognizing a change in environment when the current assumption is no longer reasonable.

*Contribution risk* is the potential for actual future contributions to deviate from expected future contributions. There are different sources of contribution risk such as the sponsor choosing to not make contributions in accordance with the funding policy or if the contribution requirement becomes such a financial strain on the sponsor as a result of material changes in the contribution base (e.g., covered employees, covered payroll) that affect the amount of contributions the Plan can collect.

## SECTION II – DISCLOSURES RELATED TO RISK

The chart below shows the components contributing to the Unfunded Actuarial Liability (UAL) from January 1, 2011 through December 31, 2020. Over the last 10 years, the UAL has increased by approximately $925.7 million. The investment losses (gold bar) of $592.4 million on the Actuarial Value of Assets (AVA) and assumptions changes (purple bar) resulting in a total UAL increase of $494.5 million are the primary sources in the UAL growth. The net liability gains (gray bar) of $59.1 million and contributions in excess of the "tread water" level (red bar) of $105.0 million have decreased the UAL since December 31, 2011.

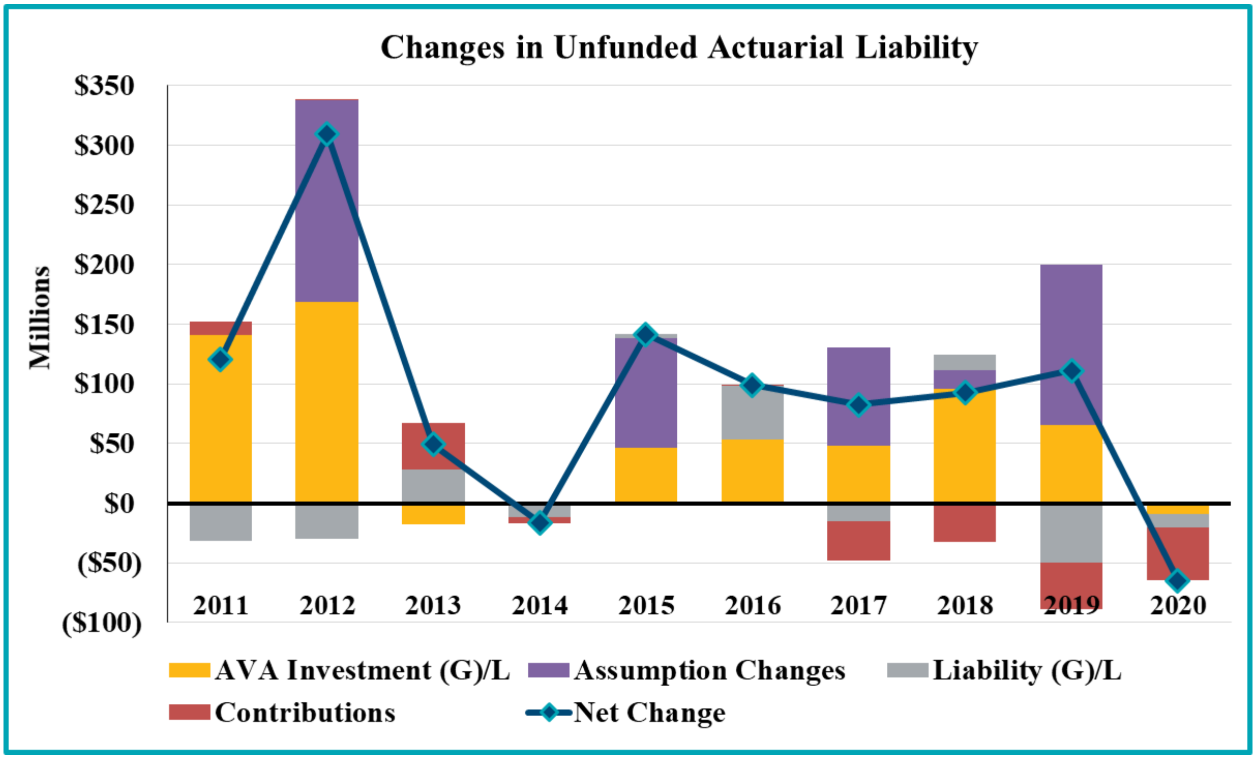
**Chart II-1**



## SECTION II – DISCLOSURES RELATED TO RISK

Chart II-2 below details the annual sources of the UAL change (colored bars) for the plan years ending December 31. The net UAL change for each year is represented by the blue diamonds.

**Chart II-2**




On a market value basis, the average annual geometric return over the 10-year period is 6.2%. This has resulted in investment losses on the AVA every year, increasing the UAL, except for the 2013 and 2020 plan years.

Over the same time period, the assumed rate of return decreased from 7.75% to 7.00%. It is important to note that these changes simply reflect a downward revision to the estimate of future investment earnings and ultimately costs will be determined by actual investment earnings. Based on Meketa's current capital market assumptions (including their inflation assumption of 2.10%) and the Plan's asset allocation, the expected average annual return is 6.25%, compared to the Plan's updated assumption of 7.00% in 2021. Future expectations of investment returns may continue to decline necessitating further reductions in the discount rate.

The impact of all assumption changes is represented by the purple bars and also includes decreases in mortality rates projected in the future which had a significant impact on the measurement of the UAL. The assumption changes effective with the January 1, 2019 valuation were only demographic changes with no change to the expected rate of return of 7.25%. The January 1, 2020 valuation decreased the expected rate of return to 7.00%.

## SECTION II – DISCLOSURES RELATED TO RISK

Each year the UAL is expected to increase for benefits earned in the current year (the normal cost), administrative expenses, and interest on the UAL. This expected increase is referred to as the tread water level. If contributions are greater than the tread water level, the UAL is expected to decrease. Conversely, if contributions are less than the tread water level, the UAL is expected to increase. The amortization policy (as well as the contribution-timing lag) can impact whether or not the contributions exceed the tread water level. For example, the Board changed the amortization policy in 2009 to amortize 50% of the extraordinary asset loss over a 30-year period and the remaining UAL over a 20-year period. Initially, the relatively long amortization period resulted in contributions being below the tread water level.

However, the single equivalent amortization period for the last several years has been much lower (around 14-16 years), with the UAL payment going towards principal as well as interest on the UAL. In addition, the County and at least two other employers have made discretionary contributions above the actuarial determined contribution rate, in the County's case equal to 5% of their pensionable payroll, or approximately $20 million per year since the 2017 plan year. These contributions went directly toward paying down the principal on the UAL as seen below in Table II-1, which numerically summarizes the changes in the UAL for each year by source over the last 10 years.

**Table II-1**

**Unfunded Actuarial Liability (UAL) Change by Source**

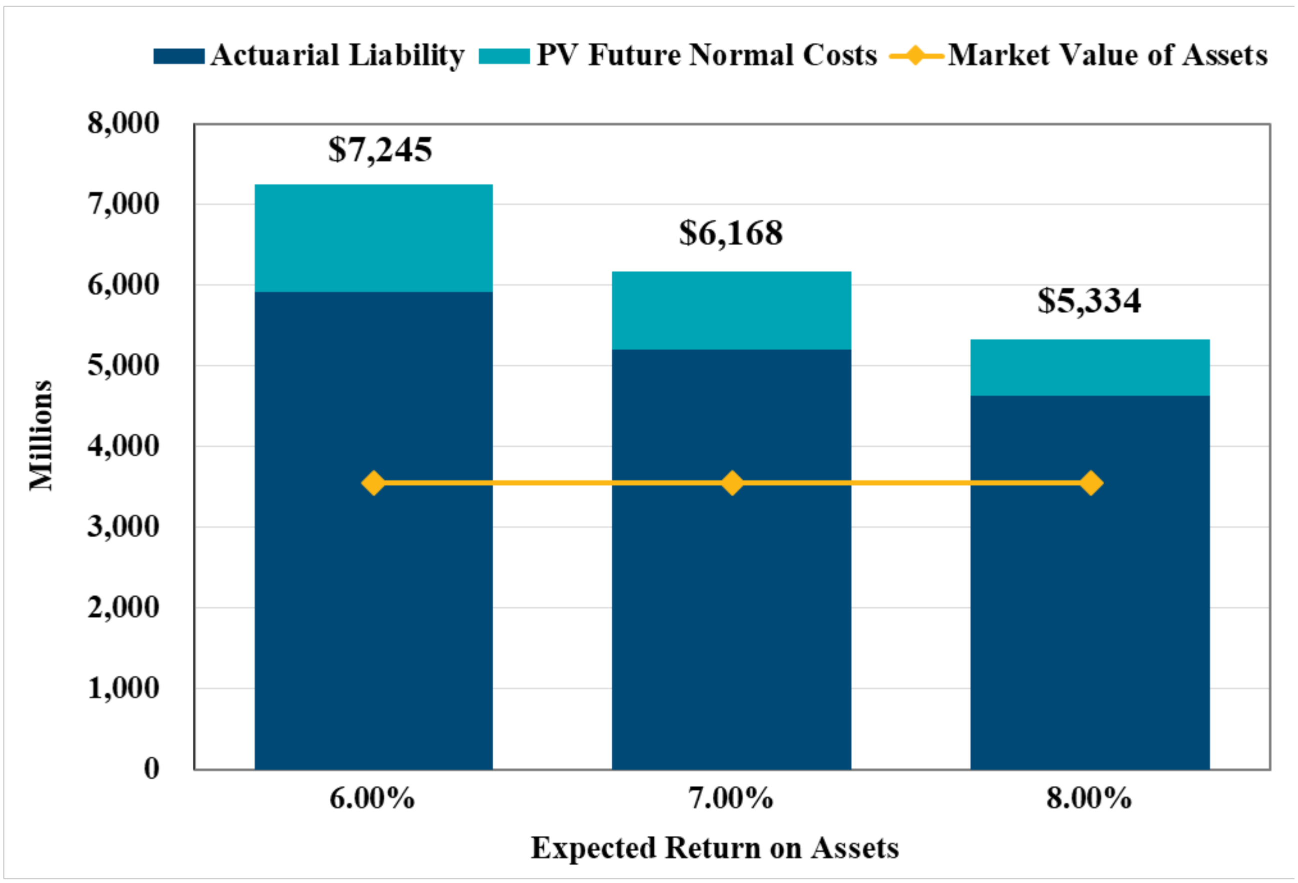
| December 31, | Investment Experience | Liability Experience | Assumption Changes | Contributions | Total UAL Change |
|---|---|---|---|---|---|
| **2011** | $141,181,000 | ($31,403,000) | $0 | $11,186,000 | $120,964,000 |
| **2012** | 168,334,000 | (29,597,000) | 169,755,000 | 833,000 | 309,325,000 |
| **2013** | (18,030,000) | 28,061,000 | 0 | 39,067,000 | 49,098,000 |
| **2014** | 653,000 | (11,929,000) | 0 | (5,073,000) | (16,349,000) |
| **2015** | 46,200,000 | 3,691,000 | 91,855,000 | (172,000) | 141,574,000 |
| **2016** | 53,461,000 | 45,033,000 | 0 | 831,000 | 99,325,000 |
| **2017** | 48,426,000 | (14,693,000) | 81,855,000 | (33,016,000) | 82,572,000 |
| **2018** | 95,800,000 | 12,745,000 | 16,017,000 | (31,986,000) | 92,576,000 |
| **2019** | 65,252,000 | (49,917,000) | 135,011,000 | (39,203,000) | 111,143,000 |
| **2020** | (8,800,000) | (11,061,000) | 0 | (44,641,000) | (64,502,000) |
| **Total** | **$592,477,000** | **($59,070,000)** | **$494,493,000** | **($102,174,000)** | **$925,726,000** |

## Assessing Costs and Risks

### Sensitivity to Investment Returns

The chart below compares assets to the present value of all projected future benefits discounted at the current expected rate of return and at discount rates 100 basis points above and below the expected rate of return. The present value of future benefits is shown as a bar with the portion attributable to past service in dark blue (Actuarial Liability) and the portion attributable to future service in teal (present value of future normal costs). The Market Value of Assets is shown by the gold line.

**Present Value of Future Benefits versus Assets**



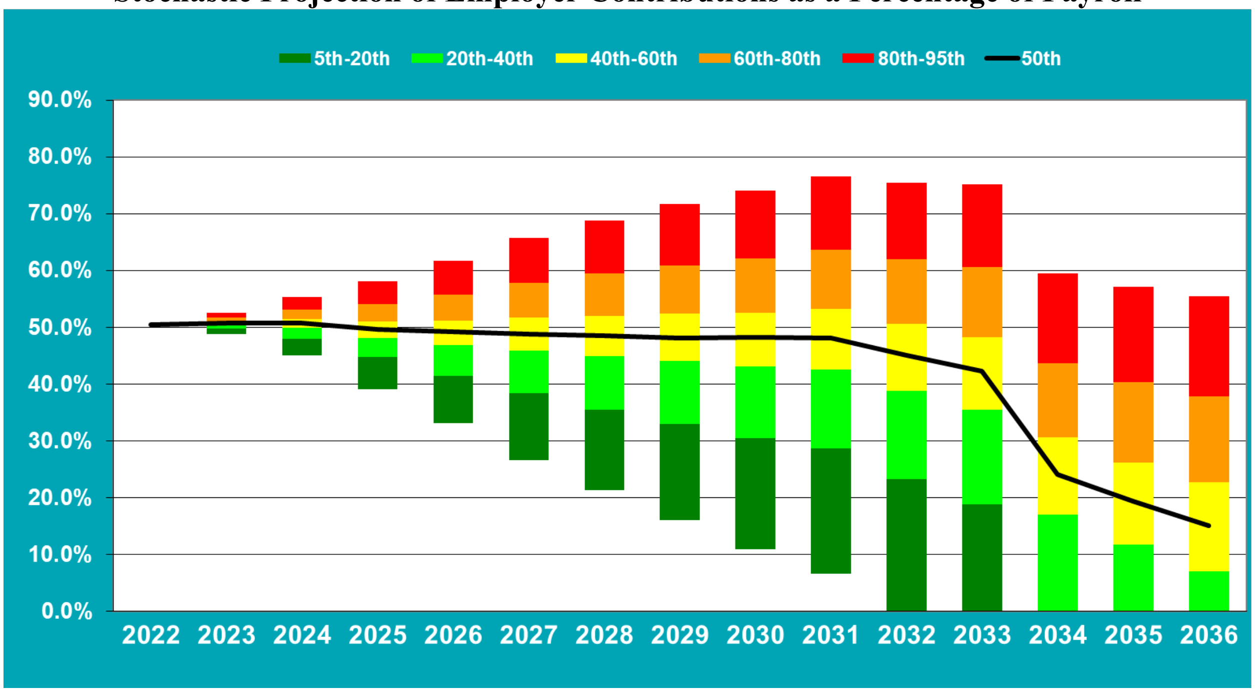

If investments return 7.00% annually, the Plan will need approximately $6.2 billion in assets today to pay all projected benefits compared to current assets of $3.5 billion. If investment returns are only 6.00%, the Plan would need approximately $7.2 billion in assets today, and if investment returns are 8.00%, the Plan would need approximately $5.3 billion in assets today.

## SECTION II – DISCLOSURES RELATED TO RISK

### Sensitivity to Investment Returns - Stochastic Projections

Stochastic projections serve to show the range of probable outcomes of various measurements. The graphs below and on the following page show the projected range of the employer contribution rate and of the funded ratio on an Actuarial Value of Assets basis. The range in both scenarios is driven by the volatility of investment returns (assumed to be based on a 10.7% standard deviation of annual returns, as indicated in Meketa's current capital market assumptions).

**Stochastic Projection of Employer Contributions as a Percentage of Payroll**

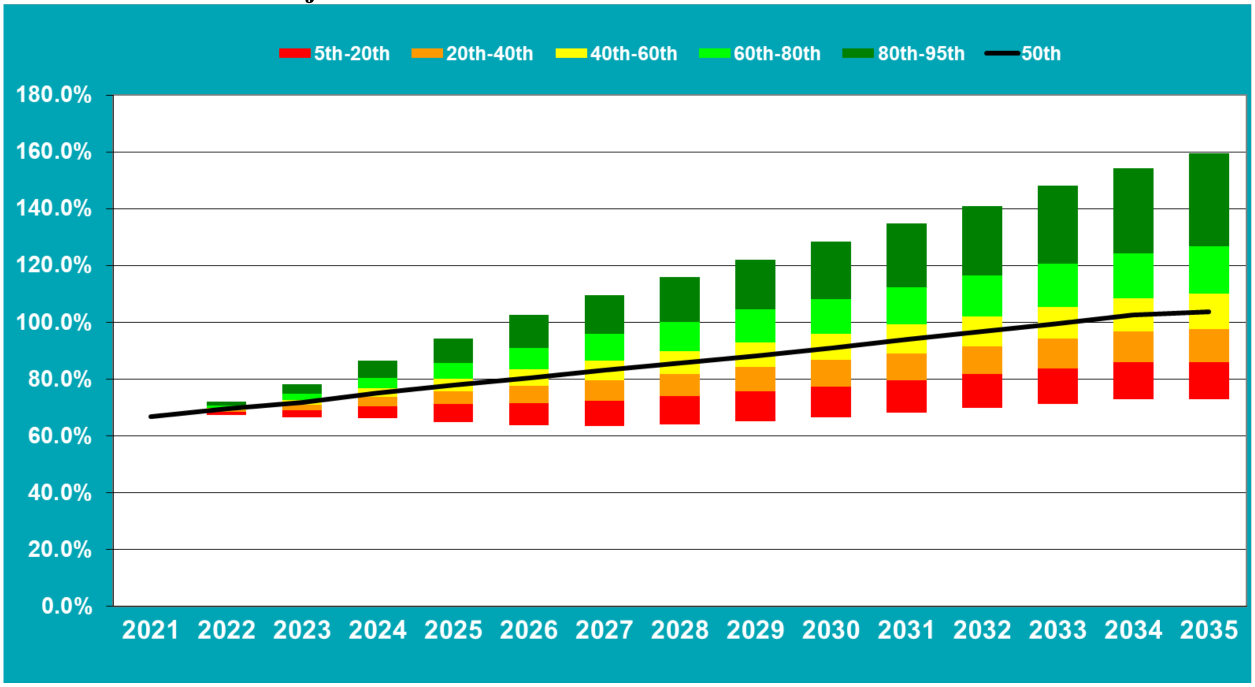



The stochastic projection of employer contributions as a percentage of payroll shows the probable range of future contribution rates. The baseline contribution rate (black line), which is based on the median of the simulations using an average return of 7.00%, aligns closely with the projections discussed in subsection D. of the Executive Summary of this report. In the most pessimistic scenario shown, the 95th percentile, the projected employer contribution rate approaches 75% of pay in 2030. Conversely, the most optimistic scenario shown, the 5th percentile, the projected employer contribution rate declines to 0% in 2032.

We note that these projections allow the employers' contribution to drop below their share of the normal cost if the Plan becomes overfunded (i.e. a funded ratio above 100%). Under the PEPRA legislation, this is currently only allowed if the Plan becomes extremely over-funded (above 120%) and meets other conditions; these provisions have been ignored for the purposes of these simulations. The projections above do not include the additional contribution reserve or any future contributions above the actuarially determined contributions.

## SECTION II – DISCLOSURES RELATED TO RISK

**Stochastic Projection of Funded Ratio on an Actuarial Value of Assets Basis**




The graph above shows the projection of the funded ratio based on the actuarial value of assets. The projections do not assume future additional contributions from the County or other employers. While the baseline-funded ratio (black line) is projected to be approximately 103% at the end of the 15-year period shown here, there is a wide range of potential outcomes. Good investment returns have the likelihood of bringing the funded ratio well over 100%. Due to the current funding policy of the Plan, even in scenarios with unfavorable investment returns, the Plan is projected to remain over 60% funded on an Actuarial Value of Assets basis in all but the most unfavorable of scenarios, as long as the actuarially determined contributions continue to be made.

### Contribution Risk

The Safety contribution rate is very large at nearly 87% of payroll and as a result, future salary increases, and the hiring of new members are potentially at risk. When member payroll growth stagnates or even declines, the dollar level of contributions made to the Plan also stagnate or decline since contributions are based on payroll levels.

There is also a risk of the contribution rate increasing even higher when payroll decreases since the Plan's funding policy amortizes the UAL as a level percentage of payroll. This means that the UAL payments increase at the assumed payroll growth rate of 3.00%, so that the payment is expected to remain constant as a percentage of payroll. If payroll growth is less than the expected 3.00% or there is a decline in payroll, the UAL payments are spread over a smaller payroll base and the contribution rate as a percentage of payroll increases, making the Plan less affordable for the Safety and potentially other plan sponsors.

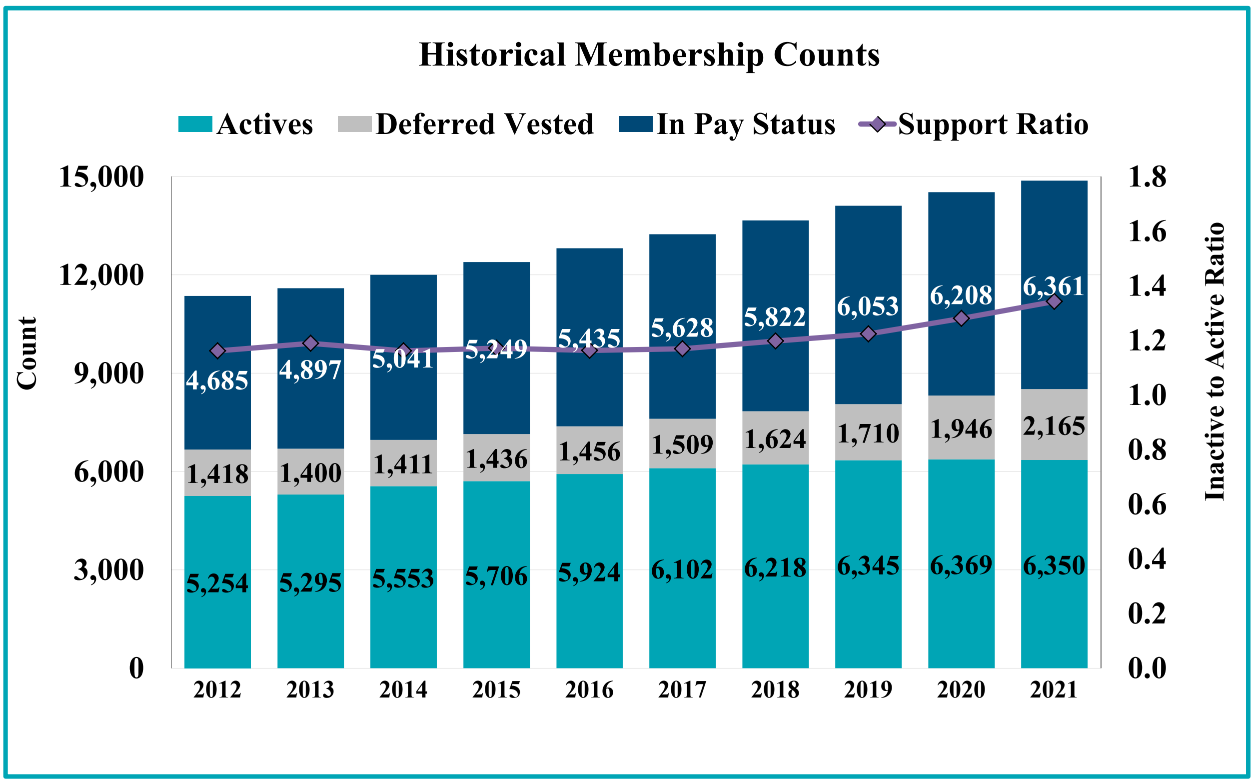
## Plan Maturity Measures

The future financial condition of a mature pension plan is more sensitive to each of the risks identified above than a less mature plan. Before assessing each of these risks, it is important to understand the maturity of the Plan and how the maturity has changed over time.

Plan maturity can be measured in a variety of ways, but they all get at one basic dynamic – the larger the plan is compared to the contribution or revenue base that supports it; the more sensitive the plan will be to risk. The measures below have been selected as the most important in understanding the primary risks identified for the Plan.

**Inactives per Active (Support Ratio)**

One simple measure of plan maturity is the ratio of the number of inactive members (those receiving benefits or inactives – those entitled to a deferred benefit) to the number of active members. The Support Ratio is expected to increase gradually as a plan matures. The chart below shows the growth in the Support Ratio from 2012 to 2013 as the number of active members declined and the number of retirees increased. The Support Ratio slightly declined from 2014 to 2017 since the active population increased an average of about 3.6% per year. The last four years, the active population increased at a slower pace than the inactive population, resulting in an uptick in the Support Ratio.

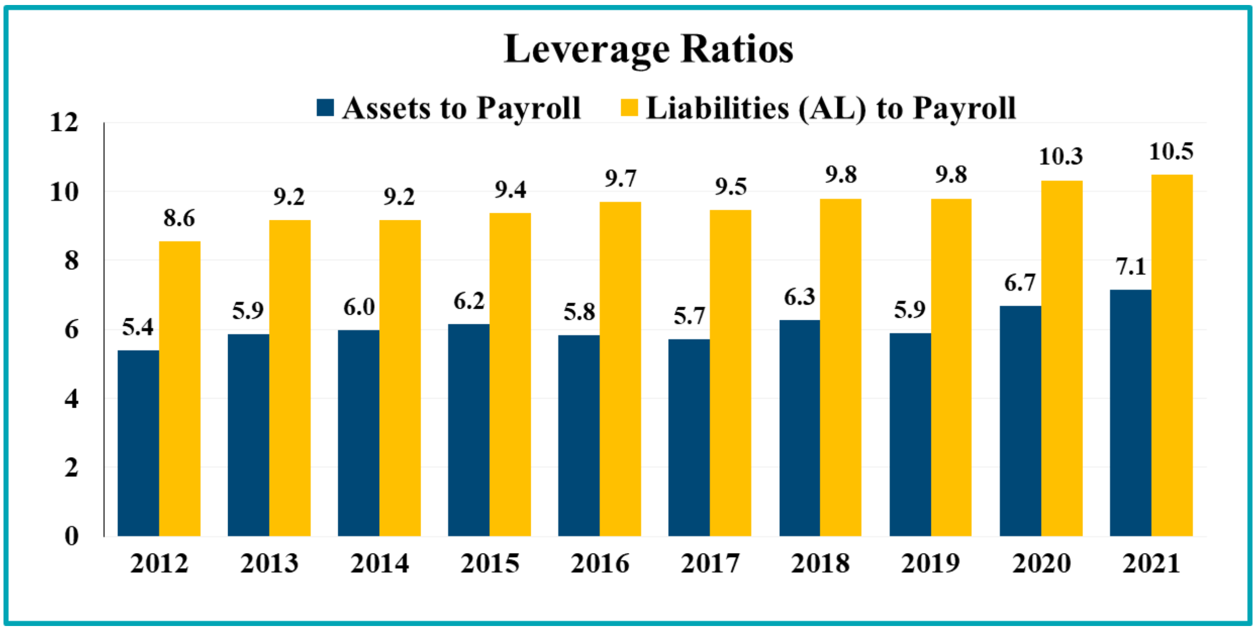


## SECTION II – DISCLOSURES RELATED TO RISK

**Leverage Ratios**

Leverage or volatility ratios measure the size of the plan compared to its revenue base more directly. The asset leverage ratio is simply the market value of assets to active member payroll and indicates the sensitivity of the Plan to investment returns. The liability leverage ratio is the plan's actuarial liability to active member payroll and indicates the sensitivity of the Plan to assumption changes or demographic experience.

The chart below shows the historical leverage ratios of the Plan. Both leverage ratios have gradually increased since 2012, but the asset to payroll ratio had remained relatively stable around 6.0 - assets are six times member payroll – from 2013 to 2019. In 2020 and 2021, the ratio increased to 6.7 and 7.1 times member payroll, respectively, due to the favorable asset returns. The liability to payroll ratio increased by 0.5 in 2020 since the liabilities increased as a result of lowering the discount rate from 7.25% to 7.00%.

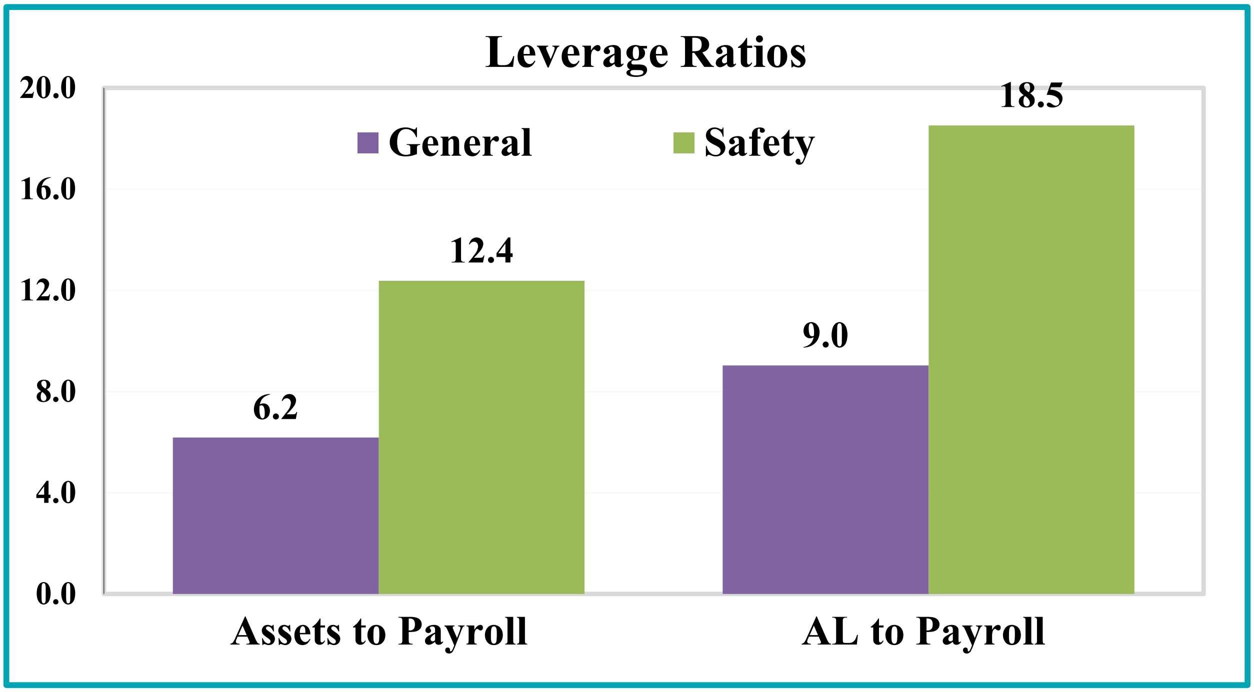



To appreciate the impact of the ratio of assets to payroll on plan cost, consider the situation for a new plan with almost no assets. Even if the assets suffer a bad year of investment returns, the impact on the plan cost is nil, because the asset level is so small.

As the Plan becomes better funded, the asset leverage ratio will increase, and if it were 100% funded, the asset leverage ratio would be over 10 times payroll, or the liability leverage ratio.

We note that the ratio of both assets and liabilities to payroll, and therefore the sensitivity to investment returns, is higher for the Safety members compared to the General members, because of the higher benefit amounts and the earlier average retirement ages for Safety.

## SECTION II – DISCLOSURES RELATED TO RISK




The General asset leverage ratio of 6.2 means that if the Plan's assets lose 10% of their value, which is a 17.00% actuarial loss compared to the expected return of 7.00%, the loss would be equivalent to 105% of payroll (17.00% times 6.2). Based on the current amortization policy and economic assumptions, the General contribution rate would ultimately increase by about 10% of payroll, after deferred asset losses are fully recognized. The same investment loss for the Safety group with an asset ratio of 12.4 would be equivalent to 211% of payroll, or an approximate contribution rate increase of 21%. Therefore, the contribution rates for the Safety members will generally be much more volatile than those of the General members.

**More Detailed Assessment**

While a more detailed assessment is always valuable to enhance the understanding of the risks identified above, we believe the scenarios illustrated above cover the primary risks facing the Plan at this time. We would be happy to provide the Board with a more in-depth analysis at their request.

## SECTION III – ASSETS

Pension Plan assets play a key role in the financial operation of the System and in the decisions the Board may make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely impact benefit levels, employer contributions, and the ultimate security of participants' benefits.

In this section, we present detailed information on System assets including:

- **Disclosure** of System assets as of December 31, 2019 and December 31, 2020,
- Statement of the **changes** in market values during the year,
- Development of the **Actuarial Value of Assets**,
- An assessment of **investment performance**, and
- Determination of **reserve balances** as of January 1, 2021.

## Disclosure

There are two types of asset values disclosed in the valuation, the Market Value of Assets, and the Actuarial Value of Assets. The market value represents the fair value of assets that provide the principal basis for measuring financial performance from one year to the next. Market values, however, can fluctuate widely with corresponding swings in the marketplace. As a result, market values are usually not as suitable for long-range planning as are the Actuarial Value of Assets, which reflect smoothing of annual investment returns.

Table III-1 on the next page discloses and compares the market values as of December 31, 2019 and December 31, 2020.

## SECTION III – ASSETS

**TABLE III-1**
**Statement of Assets at Market Value**
**December 31,**

| **Assets:** | **2019** | **2020** |
|---|---|---|
| Cash and Cash Equivalents | $ 72,762,977 | $ 146,456,177 |
| Cash Collateral-Securities Lending | 46,038,227 | 83,589,197 |
| Total Cash and Cash Equivalents | 118,801,204 | 230,045,374 |
| **Receivables:** | | |
| Investment Income Receivables | 5,847,455 | 3,400,405 |
| Contributions Receivable | 8,187,026 | 10,074,285 |
| Securities Sold, Not Received - Domestic | 3,111,902 | 1,065,084 |
| Other Investment Income Receivable | 0 | 0 |
| Miscellaneous Receivables | 46,448 | 40,873 |
| Total Receivables | 17,192,831 | 14,580,647 |
| **Investments, at Market Value:** | | |
| Stable Fixed Income | 318,806,931 | 322,514,912 |
| Credit | 408,015,328 | 479,100,892 |
| Global Public Equity | 1,089,461,379 | 1,258,623,730 |
| Private Appreciation | 415,332,040 | 456,340,240 |
| Risk Parity | 408,546,978 | 409,233,403 |
| Crisis Risk Offset | 518,236,764 | 463,660,827 |
| Total Investments | 3,158,399,420 | 3,389,474,004 |
| **Other Assets:** | | |
| Prepaid Expenses | 82,030 | 140,655 |
| Equipment and Fixtures, Net | 179,797 | 136,246 |
| Other Assets | 261,827 | 276,901 |
| **Total Assets** | 3,294,655,282 | 3,634,376,926 |
| **Liabilities:** | | |
| Securities Lending-Cash Collateral | 46,038,227 | 83,589,197 |
| Securities Purchased, Not Paid | 3,402,003 | 2,986,539 |
| Accrued Expenses and Other Payables | 762,190 | 1,076,401 |
| Security Lending Interest and Other Expense | 91,035 | 12,540 |
| **Total Liabilities** | 50,293,455 | 87,664,677 |
| **Market Value of Assets** | **$ 3,244,361,827** | **$ 3,546,712,249** |

## Changes in Market Value

The components of asset change are:

- Contributions (employer and employee)
- Benefit payments
- Expenses (investment and administrative)
- Investment income (realized and unrealized)

Table III-2 below shows the components of change in the Market Value of Assets during 2019 and 2020.

**TABLE III-2**
**Changes in Market Values**

| **Additions** | **2019** | **2020** |
|---|---|---|
| Contributions | | |
| Employer's Contribution | 225,528,756 | 240,700,988 |
| Members' Contributions | 38,098,688 | 40,568,995 |
| Total Contributions | 263,627,444 | 281,269,983 |
| | | |
| Net Investment Income | | |
| Net Appreciation/(Depreciation) in | | |
| Fair Value of Investments | 345,001,380 | 256,770,057 |
| Interest | 34,070,170 | 20,997,097 |
| Dividends | 6,958,776 | 5,563,699 |
| Real Estate Income, net | 13,540,096 | 11,223,598 |
| Investment Expenses | (19,363,548) | (18,016,050) |
| Miscellaneous Investment Income | 54,974 | 2,390 |
| Net Investment Income, | | |
| Before Securities Lending Income | 380,261,848 | 276,540,791 |
| | | |
| Securities Lending Income | | |
| Earnings | 2,186,019 | 581,476 |
| Rebates | (1,734,932) | (165,250) |
| Fees | (112,594) | (103,839) |
| Net Securities Lending Income | 338,493 | 312,387 |
| Net Investment Income | 380,600,341 | 276,853,178 |
| Miscellaneous Income | 74,187 | 143,352 |
| Total Additions | 644,301,972 | 558,266,513 |

## SECTION III – ASSETS

**TABLE III-2**
**Changes in Market Values (Continued)**

| Deductions | 2019 | 2020 |
|---|---|---|
| Benefit payments | 232,736,441 | 247,254,985 |
| Death Benefits | 668,768 | 808,150 |
| Refunds of Members' Contributions | 2,944,863 | 3,488,542 |
| Total Benefit Payments | 236,350,072 | 251,551,677 |
| | | |
| Administrative & Other Expenses | | |
| General Administrative Expenses | 3,708,350 | 3,936,825 |
| Actuary Fees | 226,652 | 123,800 |
| Fund Legal Fees | 996,161 | 475,830 |
| Total Administrative & Other Expenses | 4,931,163 | 4,536,455 |
| Transfer Between Plans | (299,014) | (172,041) |
| Total Deductions | 240,982,221 | 255,916,091 |
| Net increase (Decrease) | 403,319,751 | 302,350,422 |
| | | |
| Net Assets Held in Trust for Pension Benefits: | | |
| Beginning of Year | 2,841,042,076 | 3,244,361,827 |
| End of Year | 3,244,361,827 | 3,546,712,249 |
| | | |
| Approximate Return | 13.35% | 8.50% |

## SECTION III – ASSETS

# Actuarial Value of Assets (AVA)

The Actuarial Value of Assets represents a "smoothed" value developed by the actuary to reduce contribution volatility, which could develop due to short-term fluctuations in the Market Value of Assets. For this System, the Actuarial Value of Assets is calculated by recognizing the deviation of actual investment returns compared to the expected return over a five-year period.

The dollar amount of the expected return on the Market Value of Assets is determined using the actual contributions, administrative expense, and benefit payments during the year. Any difference between this amount and the actual investment earnings is considered a gain or loss. However, in no event will the Actuarial Value of Assets be less than 80% or more than 120% of market value on the valuation date. The following table shows the development of the actuarial asset value.

**TABLE III-3**
**Development of Actuarial Value of Assets**
**as of January 1, 2021**

| Year | (a) Contributions | (b) Benefits | (c) Administrative Expense | (d) Healthcare Fund Transfer | (e) Expected Return | (f) Actual Return | (g) = (f) – (e) Additional Earnings | (h) Not Recognized | (i) = (g) x (h) Unrecognized Earnings |
|---|---|---|---|---|---|---|---|---|---|
| 2017 | 233,686,648 | 205,406,970 | 4,118,578 | 364,714 | 189,960,353 | 299,960,693 | 110,000,340 | 20% | 22,000,068 |
| 2018 | 244,135,523 | 221,443,667 | 4,865,082 | 324,269 | 209,406,849 | (56,397,598) | (265,804,447) | 40% | (106,321,779) |
| 2019 | 263,627,444 | 236,350,072 | 4,931,163 | 299,014 | 206,793,106 | 380,674,528 | 173,881,422 | 60% | 104,328,853 |
| 2020 | 281,269,983 | 251,551,677 | 4,536,455 | 172,041 | 227,983,829 | 276,996,530 | 49,012,701 | 80% | 39,210,161 |

| | |
|---|---|
| 1. Total Unrecognized Dollars | 59,217,303 |
| 2. Market Value of Assets as of December 31, 2020 | 3,546,712,249 |
| 3. Preliminary Actuarial Value of Assets as of December 31, 2020: [(2) - (1)] | 3,487,494,946 |
| 4. Corridor Limits | |
| a. 80% of Net Market Value | 2,837,369,799 |
| b. 120% of Net Market Value | 4,256,054,699 |
| 5. Actuarial Value of Assets after Corridor | 3,487,494,946 |
| 6. Ratio of Actuarial Value to Market Value [(5) ÷ (2)] | 98.33% |
| 7. Market Stabilization Designation [(2) – (5)] | 59,217,303 |
| 8. Special (Non Valuation) Reserves: | |
| Class Action Settlement – Post 4/1/1982 | 70,425 |
| Contingency | 0 |
| Undistributed Earnings Reserve | 0 |
| Total Special Reserves | 70,425 |
| 9. Actuarial Value of Assets for the Funding Ratio: [(5) - (8)] | **$3,487,424,521** |
| 10. Additional Contribution Reserves | $97,140,039 |
| 11. Actuarial Value of Assets Used for Calculating the Employer Contribution Rates: [(9) - (10)] | **$3,390,284,482** |

## Investment Performance

The following table calculates the investment related gain/loss for the plan year on both a market value and an actuarial value basis. The market value gain/loss is a useful measure for comparing the actual asset performance to the previous valuation assumption.

The employer contributions include the additional contributions of $22,089,251 made by the County, the MVCD, and the Superior Court in the gain/loss development for the market value of assets but are excluded in the analysis for the valuation assets.

**TABLE III-4**
**Asset Gain/(Loss)**

| | Market Value | Valuation Assets |
|---|---|---|
| **January 1, 2020 value** | **$ 3,244,361,827** | **$ 3,157,104,147** |
| Employer Contributions | 240,700,988 | 218,611,737 |
| Employee Contributions | 40,568,995 | 40,568,995 |
| Healthcare Transfer | 172,041 | 172,041 |
| Benefit Payments | (251,551,677) | (251,551,677) |
| Administrative Expenses | (4,536,455) | (4,536,455) |
| Expected Investment Earnings (7.00%) | 227,983,829 | 221,115,743 |
| Expected Value December 31, 2020 | **$ 3,497,699,548** | **$ 3,381,484,531** |
| Investment Gain / (Loss) | 49,012,701 | 8,799,951 |
| **January 1, 2021 value** | **$ 3,546,712,249** | **$ 3,390,284,482** |
| | | |
| Return | 8.50% | 7.28% |

Note that the return on market value shown above is not the dollar-weighted return on assets required for purposes of GASB Statements 67 and 68.

## SECTION III – ASSETS

The following table shows the historical annual asset returns on a market value and actuarial value basis, as well in the increase in the Consumer Price Index (CPI) since 1999.

**TABLE III-5**
**Historical Asset Returns**

| Year Ended December 31 | Return on Market Value | Return on Actuarial Value | Increase in CPI[1] |
|---|---|---|---|
| 1999 | 13.7% | 15.1% | 2.7% |
| 2000 | 3.2% | 11.5% | 3.4% |
| 2001 | ( 0.1%) | 8.8% | 1.6% |
| 2002 | ( 5.5%) | 4.7% | 2.4% |
| 2003 | 25.5% | 6.8% | 1.9% |
| 2004 | 11.8% | 6.6% | 3.3% |
| 2005 | 6.9% | 7.2% | 3.4% |
| 2006 | 12.7% | 9.6% | 2.5% |
| 2007 | 6.9% | 11.2% | 4.1% |
| 2008 | ( 30.1%) | ( 14.3%) | ( 0.5%) |
| 2009 | 11.4% | 7.4% | 2.5% |
| 2010 | 12.4% | 6.4% | 1.5% |
| 2011 | 1.3% | ( 1.8%) | 3.0% |
| 2012 | 11.7% | ( 0.2%) | 1.7% |
| 2013 | 9.2% | 8.5% | 1.5% |
| 2014 | 4.7% | 7.5% | 0.8% |
| 2015 | ( 1.9%) | 5.6% | 0.7% |
| 2016 | 6.3% | 5.3% | 2.1% |
| 2017 | 11.7% | 5.6% | 2.1% |
| 2018 | ( 2.0%) | 3.9% | 1.9% |
| 2019 | 13.3% | 5.1% | 2.3% |
| 2020 | 8.5% | 7.3% | 1.4% |
| Compounded 15- Year Average | 4.4% | 4.3% | 1.8% |
| Compounded 10- Year Average | 6.2% | 4.6% | 1.7% |
| Compounded 5- Year Average | 7.4% | 5.4% | 2.0% |

[1] Based on All Urban Consumers - U.S. City Average, December Indices.

## Reserve Balances

The following table shows historical balances of the Post-1982 Settlement Reserve.

**TABLE III-6**
**Post-1982 Settlement Reserve**

| Valuation Date January 1 | Number Eligible | Benefits Payable | Reserve | Estimated Years of Payments |
|---|---|---|---|---|
| 2008 | 1,896 | 3,683,939 | 25,872,222 | 13 |
| 2009 | 1,856 | 3,602,904 | 22,015,055 | 10 |
| 2010 | 1,800 | 3,484,762 | 20,090,654 | 9 |
| 2011 | 1,738 | 3,370,636 | 18,108,660 | 6 |
| 2012 | 1,679 | 3,243,068 | 14,556,866 | 5 |
| 2013 | 1,709 | 3,244,009 | 11,063,855 | 4 |
| 2014 | 1,662 | 3,197,416 | 8,765,004 | 3 |
| 2015 | 1,617 | 3,046,233 | 6,338,007 | 2 |
| 2016 | 1,560 | 2,939,133 | 3,644,507 | 1 |
| 2017 | 1,501 | 2,821,575 | 915,393 | <1 |
| 2018 | 1,441 | 2,705,007 | 485,100 | <1 |
| 2019 | 1,376 | 2,594,058 | 62,951 | <1 |
| 2020 | 1,313 | 2,479,710 | 65,877 | <1 |
| 2021 | 1,255 | 2,372,539 | 70,425 | <1 |

As of January 1, 2021, the total projected liability associated with paying the Post-82 Settlement allowances for the remaining lifetime of the eligible members and beneficiaries is approximately $17.3 million. Payments from the Post-82 Settlement reserve have been suspended, with the last benefits payable in August of 2018.

## SECTION IV – LIABILITIES

In this section, we present detailed information on System liabilities including:

- **Disclosure** of System liabilities at January 1, 2020 and January 1, 2021
- Statement of **changes** in these liabilities during the year

## Disclosure

Several types of liabilities are calculated and presented in this report. We note that the liabilities described below are not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations, in the case of a plan termination or other similar action.

- **Present Value of Future Benefits:** Used for measuring all future System obligations, represents the amount of money needed today to fully fund all benefits of the System both earned as of the valuation date and those to be earned in the future by current plan participants, under the current System provisions.
- **Actuarial Liability:** Used for funding calculations, this liability is calculated taking the Present Value of Future Benefits and subtracting the present value of future Member Contributions and future Employer Normal Costs under an acceptable actuarial funding method. The method used for this System is called the **Entry Age Normal** (EAN) funding method.
- **Unfunded Actuarial Liability:** The excess of the Actuarial Liability over the Actuarial Value of Assets.

Table IV-1 discloses each of these liabilities for the current and prior valuations and shows the allocation of the valuation assets between SJCERA's valuation subgroups, General and Safety. With respect to each disclosure, a subtraction of the appropriate value of Plan assets yields, for each respective type, a **net surplus,** or an **Unfunded Actuarial Liability**.

## SECTION IV – LIABILITIES

**Table IV-1**
**Allocation of Assets by Subgroup and Liabilities/Net (Surplus)/Unfunded**

| | January 1, 2020 Total | January 1, 2021 Total | (a) General | (b) Safety | (c) Unallocated |
|---|---|---|---|---|---|
| 1. Member Reserves | $ 403,100,250 | $ 432,960,501 | $ 349,329,475 | $ 83,631,026 | $ 0 |
| 2. Employer Advance Reserves w/o Add'l Contribs | 1,521,571,733 | 1,735,539,236 | 1,245,662,481 | 489,876,756 | 0 |
| 3. Retired Member Reserves | 1,228,326,028 | 1,214,247,124 | 883,441,472 | 326,693,650 | 4,112,002 |
| 4. Total Valuation Reserves (1 + 2 + 3) | $ 3,152,998,011 | $ 3,382,746,862 | $ 2,478,433,427 | $ 900,201,431 | $ 4,112,002 |
| 5. Additional Contribs to Employer Advance Reserves | 68,994,995 | 97,140,039 | 82,287,935 | 14,852,104 | 0 |
| 6. AVA Gain/Loss, less Stabilization Reserve | 0 | 7,537,621 | 0 | 0 | 7,537,621 |
| 7. Total Reserves (4 + 5 + 6) | $ 3,221,993,006 | $ 3,487,424,521 | $ 2,560,721,362 | $ 915,053,535 | $ 11,649,623 |
| 8. Proportion Reserves of Line 4, by Plan | | | 73.36% | 26.64% | |
| 9. Valuation Assets for Funding Ratio ( 7 + [8 * 7c]) | $ 3,226,099,142 | $ 3,487,424,521 | $ 2,569,267,067 | $ 918,157,454 | |
| 10. Valuation Assets for Developing Contribution Rate ( 4 + [8 * 7c]) | $ 3,157,104,147 | $ 3,390,284,482 | $ 2,486,979,132 | $ 903,305,350 | |
| **Present Value of Future Benefits** | | | | | |
| Actives | $ 2,635,984,057 | $ 2,660,484,116 | $ 2,014,991,110 | $ 645,493,006 | |
| Terminated Vested | 158,891,745 | 179,201,791 | 145,497,520 | 33,704,271 | |
| Retirees | 2,659,587,412 | 2,814,228,539 | 2,091,456,060 | 722,772,479 | |
| Disabled | 311,207,830 | 313,863,478 | 127,032,887 | 186,830,591 | |
| Beneficiaries | 192,187,309 | 200,215,069 | 131,370,843 | 68,844,226 | |
| 11. **Present Value of Future Benefits (PVB)** | **$ 5,957,858,353** | **$ 6,167,992,993** | **$ 4,510,348,420** | **$ 1,657,644,573** | |
| 12. Present Value of Future Normal Costs (PVFNC) | 944,225,887 | 960,323,692 | 713,886,301 | 246,437,391 | |
| 13. **Actuarial Liability (11 - 12)** | **$ 5,013,632,466** | **$ 5,207,669,301** | **$ 3,796,462,119** | **$ 1,411,207,182** | |
| 14. **Funded Ratio (9 / 13)** | **64.3%** | **67.0%** | **67.7%** | **65.1%** | |
| 15. **Net (Surplus)/Unfunded (13 - 10)** | **$ 1,856,528,319** | **$ 1,817,384,819** | **$ 1,309,482,987** | **$ 507,901,832** | |

## Changes in Liabilities

Each of the liabilities disclosed in the prior table are expected to change at each valuation. The components of that change, depending upon which liability is analyzed, can include:

- New hires since the last valuation
- Benefits accrued since the last valuation
- Plan amendments
- Passage of time which adds interest to the prior liability
- Benefits paid to retirees since the last valuation
- Participants retiring, terminating, or dying at rates different than expected
- A change in actuarial or investment assumptions
- A change in the actuarial funding method

Unfunded liabilities will change because of all of the above, and due to changes in System assets resulting from:

- Employer contributions different than expected
- Investment earnings different than expected
- A change in the method used to measure plan assets

**TABLE IV-2**
**Changes in Actuarial Liability**

| | | |
|---|---|---|
| Actuarial Liability at January 1, 2020 | $ | 5,013,632,466 |
| Actuarial Liability at January 1, 2021 | $ | 5,207,669,301 |
| Liability Increase (Decrease) | | 194,036,835 |
| | | |
| Change due to: | | |
| Accrual of Benefits | $ | 106,869,617 |
| Actual Benefit Payments | | (251,551,677) |
| Interest | | 349,779,745 |
| Assumption Changes | | 0 |
| Actuarial Liability (Gain) / Loss | | (11,060,850) |

## SECTION IV – LIABILITIES

**TABLE IV-3**
**Development of Actuarial (Gain) / Loss**

| | General | Safety | Total |
|---|---|---|---|
| 1. Unfunded Actuarial Liability at Start of Year (not less than zero) | $ 1,339,358,650 | $ 517,169,670 | $ 1,856,528,319 |
| 2. Middle of year unfunded actuarial liability payment | (119,284,384) | (45,407,979) | (164,692,363) |
| 3. Interest to end of year on 1. and 2. | 89,650,763 | 34,639,477 | 124,290,240 |
| 4. Increase in Actuarial Liability due to assumption change | 0 | 0 | 0 |
| 5. Expected UAL at the end of year (1+2+3+4) | 1,309,725,029 | 506,401,168 | 1,816,126,197 |
| 6. Actual Unfunded Liability at end of year[1] | 1,309,482,987 | 507,901,832 | 1,817,384,819 |
| 7. Net (Gain)/Loss: (6 - 5) | (242,042) | 1,500,664 | 1,258,622 |
| 8. Actuarial Liability (Gain) / Loss | $ (8,724,834) | $ (2,336,016) | $ (11,060,850) |
| 9. Actuarial Asset (Gain) / Loss | $ (5,951,187) | $ (2,848,764) | $ (8,799,951) |
| 10. Contribution (Gain) / Loss | $ 14,433,979 | $ 6,685,444 | $ 21,119,423 |

[1] Assets exclude the additional County, MVCD, and Superior Court Contribution Reserves.

## SECTION V – CONTRIBUTIONS

In the process of evaluating the financial condition of any pension plan, the actuary analyzes the assets and liabilities to determine what level (if any) of contributions is needed to properly maintain the funding status of the System. The actuarial process utilizes funding techniques with a goal of producing a pattern of contributions that are both stable and predictable.

For this System, the actuarial funding method used to determine the normal cost and the Unfunded Actuarial Liability is the **Entry Age Normal (EAN)** cost method. There are three primary components to the total contribution: the **normal cost rate** (employee and employer), the **Unfunded Actuarial Liability rate** (UAL rate), and the **administrative expense** contribution.

The normal cost rate is determined in the following steps. First, an individual normal cost rate is determined by taking the value, as of entry age into the System, of each member's projected future benefits. This value is then divided by the value, also at entry age, of the member's expected future salary producing a normal cost rate that should remain relatively constant over a member's career. The total normal cost is adjusted with interest to the middle of the year, to reflect the fact that the normal cost contributions are paid throughout the year as member payroll payments are made. Finally, the total normal cost rate is reduced by the member contribution rate to produce the employer normal cost rate.

The member contribution rates used in this valuation reflect the broad cost sharing arrangements in place as of the valuation date that apply to the 2022 Plan Year (i.e. whether the bargaining unit is making the full COLA cost-sharing member contribution and/or the additional 14%/33% Basic member rate). However, the valuation does not include additional fixed rate contributions payable by some bargaining units (of 3%, 4% or 5% of payroll). Those additional contributions are applied outside of the valuation, and reductions to the employer rates to reflect those additional contributions are provided directly to the individual bargaining groups.

The Unfunded Actuarial Liability is the difference between the EAN Actuarial Liability and the Actuarial Value of Assets. At the July 24, 2015 board meeting, the SJCERA Board of Retirement chose to make a change to their funding policy, opting to amortize any unexpected changes in the UAL over a period of 15 years as a level percentage of payroll, with new amortization layers each year. The result was a set of three amortization bases as of January 1, 2015: the 2008 loss being amortized over 24 years, the remaining UAL as of December 31, 2014 being amortized over 18 years, and new additions to the UAL on and after January 1, 2015 amortized over 15 years. At the February 14, 2020 board meeting, the SJCERA Board of Retirement chose to phase-in the impact of the January 1, 2020 economic assumption changes to the UAL over a period of three years, followed by 12 years of payments as a level percentage of payroll. The single equivalent amortization period for all streams of UAL payments is 14 years as of January 1, 2021. The amortization period for each Unfunded Actuarial Liability layer will decrease each year.

The total administrative expenses are assumed to be $5,035,179 in 2021, increasing with the CPI assumption each valuation. The administrative expenses are split between employees and employers based on their share of the overall contributions.

## SECTION V – CONTRIBUTIONS

The tables on the following pages present the employer contributions for the System for this valuation.

**TABLE V-1**
**Development of Employer Contribution Amount**

| | January 1, 2021 | % of pay |
|---|---|---|
| 1. Normal Cost at Middle of Year | $67,184,255 | 14.58% |
| 2. Amortization of Unfunded Liability | | |
| a. Actuarial Liability | $ 5,207,669,301 | |
| b. Actuarial Value of Assets[1] | $3,390,284,482 | |
| c. Unfunded Liability (a) – (b) | $ 1,817,384,819 | |
| d. Amortization of Unfunded Liability | $174,244,095 | 35.07% |
| 3. Administrative Expenses *(Employer allocation only)* | 4,266,295 | 0.86% |
| 4. Actuarially Determined Contribution (1) + (2d) + (3) | $ 245,694,645 | 50.51% |

[1] Assets exclude additional County, MVCD, and Superior Court Contribution Reserves.

## SECTION V – CONTRIBUTIONS

**TABLE V-2**
**Employer Contribution Rate**

| | January 1, 2020 | January 1, 2021 |
|---|---|---|
| **Contributions as a Percentage of Payroll**[1] | | |
| Gross Entry Age Normal Cost Rate | 23.73% | 23.53% |
| Employee Contribution Rate | 8.69% | 8.95% |
| Employer Entry Age Normal Cost Rate | 15.04% | 14.58% |
| | | |
| Employer Normal Cost Rate | 15.04% | 14.58% |
| Administrative Expense | 0.86% | 0.86% |
| Amortization Payment | 33.92% | 35.07% |
| Employer Contribution Rate | 49.82% | 50.51% |
| | | |
| Actuarially Determined Contribution (Employer) | $ 236,568,369 | $ 245,694,645 |

[1] Normal cost and employee contribution rates do not include administrative expenses.

## SECTION V – CONTRIBUTIONS

### TABLE V-3
### Employer Contribution Rate

| | General Tier 1 January 1, 2021 | General Tier 2 January 1, 2021 | Safety Tier 1 January 1, 2021 | Safety Tier 2 January 1, 2021 |
|---|---|---|---|---|
| **Contributions as a Percentage of Payroll**[1] | | | | |
| Gross Entry Age Normal Cost Rate | 23.40% | 19.50% | 37.28% | 30.36% |
| Employee Contribution Rate | 6.97% | 9.75% | 10.39% | 15.18% |
| Employer Entry Age Normal Cost Rate | 16.43% | 9.75% | 26.89% | 15.18% |
| | | | | |
| Employer Normal Cost Rate | 16.43% | 9.75% | 26.89% | 15.18% |
| Administrative Expense | 0.86% | 0.86% | 0.86% | 0.86% |
| Amortization Payment | 29.98% | 29.98% | 63.11% | 63.11% |
| Employer Contribution Rate | 47.27% | 40.59% | 90.86% | 79.15% |
| | | | | |
| Actuarially Determined Contribution (Employer) | $ 96,378,981 | $ 84,059,599 | $ 44,588,127 | $ 20,667,937 |

[1] Normal cost and employee contribution rates do not include administrative expenses.

## SECTION V – CONTRIBUTIONS

**TABLE V-4**
**Development of General Amortization Payment**
**For Fiscal Year 2021**

| Type of Base | Date Established | Initial Amount | Initial Amortization Years | 1/1/2021 Outstanding Balance | Remaining Amortization Years | Amortization Amount |
|---|---|---|---|---|---|---|
| **Charges/(Credits)** | | | | | | |
| 1. 2008 Extraordinary Actuarial Loss | 1/1/2009 | $ 298,074,372 | 30 | $ 327,926,630 | 18 | $ 25,549,974 |
| 2. Remaining 1/1/2014 UAL | 1/1/2014 | 584,940,566 | 19 | 520,146,690 | 12 | 54,814,169 |
| 3. 1/1/2015 Gain | 1/1/2015 | (11,658,862) | 15 | (9,393,496) | 9 | (1,251,306) |
| 4. 1/1/2016 Loss | 1/1/2016 | 34,636,894 | 15 | 29,470,672 | 10 | 3,597,030 |
| 5. 1/1/2016 Assumption Changes | 1/1/2016 | 75,853,467 | 15 | 64,539,638 | 10 | 7,877,358 |
| 6. 1/1/2017 Loss | 1/1/2017 | 94,894,097 | 15 | 84,504,150 | 11 | 9,544,706 |
| 7. 1/1/2018 Loss | 1/1/2018 | 23,943,774 | 15 | 22,134,689 | 12 | 2,332,601 |
| 8. 1/1/2018 Assumption Changes | 1/1/2018 | 59,045,648 | 15 | 54,584,423 | 12 | 5,752,223 |
| 9. 1/1/2019 Loss | 1/1/2019 | 95,504,066 | 15 | 91,079,059 | 13 | 9,016,593 |
| 10. 1/1/2019 Assumption Changes | 1/1/2019 | 17,462,987 | 15 | 16,653,872 | 13 | 1,648,691 |
| 11. 1/1/2020 Loss | 1/1/2020 | 8,429,406 | 15 | 8,244,918 | 14 | 771,246 |
| 12. 1/1/2020 Assumption Changes | 1/1/2020 | 96,315,094 | 15 | 99,833,783 | 14 | 6,419,264 [1] |
| 12. 1/1/2021 Gain | 1/1/2021 | (242,042) | 15 | (242,042) | 15 | (21,501) |
| | | | | $ 1,309,482,987 | 14 [2] | $ 126,051,048 |

[1] This payment reflects the second year of a three-year phase-in of the recognition of the increase in UAL due to the new economic assumptions.

[2] The single equivalent amortization period - i.e. the length of time required to amortize the overall UAL as a level percentage of payroll based on the total current amortization payment is approximately 14 years.

## SECTION V – CONTRIBUTIONS

**TABLE V-5**
**Development of Safety Amortization Payment**
**For Fiscal Year 2021**

| Type of Base | Date Established | Initial Amount | Initial Amortization Years | 1/1/2021 Outstanding Balance | Remaining Amortization Years | Amortization Amount |
|---|---|---|---|---|---|---|
| **Charges/(Credits)** | | | | | | |
| 1. 2008 Extraordinary Actuarial Loss | 1/1/2009 | $ 126,189,527 | 30 | $ 132,058,086 | 18 | $ 10,289,133 |
| 2. Remaining 1/1/2014 UAL | 1/1/2014 | 235,559,190 | 19 | 209,466,294 | 12 | 22,074,005 |
| 3. 1/1/2015 Gain | 1/1/2015 | (4,780,021) | 15 | (3,851,243) | 9 | (513,023) |
| 4. 1/1/2016 Loss | 1/1/2016 | 17,788,933 | 15 | 15,135,648 | 10 | 1,847,375 |
| 5. 1/1/2016 Assumption Changes | 1/1/2016 | 16,001,780 | 15 | 13,615,055 | 10 | 1,661,780 |
| 6. 1/1/2017 Loss | 1/1/2017 | 14,516,825 | 15 | 12,927,380 | 11 | 1,460,142 |
| 7. 1/1/2018 Loss | 1/1/2018 | 13,716,051 | 15 | 12,679,728 | 12 | 1,336,217 |
| 8. 1/1/2018 Assumption Changes | 1/1/2018 | 22,809,013 | 15 | 21,085,666 | 12 | 2,222,052 |
| 9. 1/1/2019 Loss | 1/1/2019 | 26,232,387 | 15 | 25,016,958 | 13 | 2,476,615 |
| 10. 1/1/2019 Assumption Changes | 1/1/2019 | (1,446,461) | 15 | (1,379,442) | 13 | (136,561) |
| 11. 1/1/2020 Loss | 1/1/2020 | 30,198,055 | 15 | 29,537,133 | 14 | 2,762,961 |
| 12. 1/1/2020 Assumption Changes | 1/1/2020 | 38,696,213 | 15 | 40,109,905 | 14 | 2,579,047 [1] |
| 12. 1/1/2021 Loss | 1/1/2021 | 1,500,664 | 15 | 1,500,664 | 15 | 133,304 |
| | | | | $ 507,901,832 | 14 [2] | $ 48,193,047 |

[1] This payment reflects the second year of a three-year phase-in of the recognition of the increase in UAL due to the new economic assumptions.

[2] The single equivalent amortization period - i.e. the length of time required to amortize the overall UAL as a level percentage of payroll based on the total current amortization payment is approximately 14 years.

## SECTION VI – ADDITIONAL ANNUAL FINANCIAL REPORT SCHEDULES

This section of the report provides a schedule for the Actuarial Section of the annual financial report for SJCERA that is not provided in the GASB 67 and 68 reports.

We have prepared the following schedule:

*Schedule of Funded Liabilities by Type*

The schedule of funded liabilities by type (formerly known as the solvency test) shows the portion of Actuarial Liabilities for active member contributions, inactive members, and the employer financed portion of the active members that are covered by the Actuarial Value of Assets.

The Actuarial Liability is determined assuming that the System is ongoing, and participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions. Liabilities for 2013 through 2015 were discounted at an assumed interest rate of 7.50%, whereas liabilities for 2016 and 2017 were discounted at the assumed rate of 7.40%, and the liabilities for 2018 and 2019 were discounted at the assumed rate of 7.25%. The liabilities for 2020 and 2021 are discounted at the assumed rate of 7.00%.

**Table VI-1**
**Schedule of Funded Liabilities by Type**
**Aggregate Actuarial Liabilities for**

| Valuation Date January 1, | Active Member Contributions (1) | Retirees & Beneficiaries (2) | Active Members[1] (3) | Actuarial Value of Assets | Portion of Actuarial Liabilities Covered by Reported Assets (1) | (2) | (3) |
|---|---|---|---|---|---|---|---|
| 2021 | $ 426,570,416 | $ 3,328,307,086 | $ 1,452,791,799 | $ 3,487,424,521 | 100% | 92% | 0% |
| 2020 | 396,549,386 | 3,162,982,551 | 1,454,100,529 | 3,226,099,142 | 100% | 89% | 0% |
| 2019 | 368,549,547 | 2,899,425,320 | 1,437,296,083 | 3,044,897,691 | 100% | 92% | 0% |
| 2018 | 344,503,811 | 2,706,791,152 | 1,445,680,634 | 2,913,161,286 | 100% | 95% | 0% |
| 2017 | 318,020,652 | 2,513,640,349 | 1,403,432,945 | 2,733,851,661 | 100% | 96% | 0% |
| 2016 | 297,179,041 | 2,347,908,211 | 1,361,302,798 | 2,604,472,784 | 100% | 98% | 0% |
| 2015 | 276,818,405 | 2,117,009,658 | 1,337,806,309 | 2,471,291,047 | 100% | 100% | 6% |
| 2014 | 258,198,240 | 1,956,930,619 | 1,346,730,197 | 2,285,165,972 | 100% | 100% | 5% |
| 2013 | 209,987,230 | 1,810,775,897 | 1,332,531,085 | 2,125,700,227 | 100% | 100% | 8% |
| 2012 | 202,924,928 | 1,627,338,404 | 1,218,058,024 | 2,130,052,649 | 100% | 100% | 25% |
| 2011 | 193,612,757 | 1,495,665,075 | 1,228,410,127 | 2,120,384,183 | 100% | 100% | 35% |
| 2010 | 187,986,706 | 1,373,256,766 | 1,208,368,072 | 1,949,011,498 | 100% | 100% | 32% |
| 2009 | 176,235,961 | 1,231,647,623 | 1,103,041,755 | 1,821,357,079 | 100% | 100% | 37% |
| 2008 | 166,804,000 | 1,119,690,000 | 1,048,027,000 | 2,029,949,000 | 100% | 100% | 71% |
| 2007 | 159,100,000 | 1,023,296,000 | 967,542,000 | 1,869,717,000 | 100% | 100% | 71% |
| 2006 | 147,953,000 | 904,208,000 | 883,657,000 | 1,727,033,000 | 100% | 100% | 76% |

[1] Includes terminated vested members.

## APPENDIX A – MEMBERSHIP INFORMATION

The data for this valuation was provided by the San Joaquin County staff as of January 1, 2021.

| Summary of Participant Data as of January 1, 2021 | General | Safety | Total |
|---|---|---|---|
| **Tier 1 Active Participants** | | | |
| Number | 2,447 | 496 | 2,943 |
| Average Age | 51.50 | 45.02 | 50.41 |
| Average Benefit Service | 17.32 | 16.44 | 17.17 |
| Average Vesting Service | 17.48 | 16.64 | 17.34 |
| Average Pay | $84,496 | $99,419 | $87,011 |
| | | | |
| **Tier 2 Active Participants** | | | |
| Number | 3,071 | 336 | 3,407 |
| Average Age | 40.86 | 33.18 | 40.10 |
| Average Benefit Service | 3.34 | 3.64 | 3.37 |
| Average Vesting Service | 3.38 | 3.69 | 3.41 |
| Average Pay | $67,562 | $77,184 | $68,511 |
| | | | |
| **All Active Participants** | | | |
| Number | 5,518 | 832 | 6,350 |
| Average Age | 45.58 | 40.24 | 44.88 |
| Average Benefit Service | 9.54 | 11.27 | 9.77 |
| Average Vesting Service | 9.64 | 11.41 | 9.87 |
| Average Pay | $75,071 | $90,440 | $77,085 |

## APPENDIX A – MEMBERSHIP INFORMATION

| Summary of Participant Data as of January 1, 2021 | General | Safety | Total |
|---|---|---|---|
| **Service Retired** | | | |
| Number | 4,171 | 674 | 4,845 |
| Average Age | 71.08 | 66.29 | 70.41 |
| Average Annual Base Benefit | $13,924 | $30,084 | $16,172 |
| Average Annual Total Benefit | $38,073 | $72,322 | $42,837 |
| **Beneficiaries** | | | |
| Number | 664 | 212 | 876 |
| Average Age | 73.04 | 70.35 | 72.39 |
| Average Annual Base Benefit | $6,005 | $11,297 | $7,286 |
| Average Annual Total Benefit | $21,133 | $37,659 | $25,132 |
| **Duty Disabled** | | | |
| Number | 263 | 213 | 476 |
| Average Age | 65.38 | 62.36 | 64.03 |
| Average Annual Base Benefit | $12,094 | $28,077 | $19,246 |
| Average Annual Total Benefit | $27,245 | $56,738 | $40,443 |
| **Non-Duty Disabled** | | | |
| Number | 152 | 12 | 164 |
| Average Age | 65.69 | 68.25 | 65.88 |
| Average Annual Base Benefit | $8,901 | $13,434 | $9,233 |
| Average Annual Total Benefit | $18,342 | $33,408 | $19,445 |
| **Total Receiving Benefits** | | | |
| Number | 5,250 | 1,111 | 6,361 |
| Average Age | 70.88 | 66.33 | 70.09 |
| Average Annual Base Benefit | $12,686 | $25,935 | $15,000 |
| Average Annual Total Benefit | $34,816 | $62,299 | $39,617 |

## APPENDIX A – MEMBERSHIP INFORMATION

| Summary of Participant Data as of January 1, 2021 | General | Safety | Total |
|---|---|---|---|
| **Deferred Vested** | | | |
| Number | 450 | 43 | 493 |
| Average Age | 48.84 | 43.72 | 48.40 |
| Average Service | 9.02 | 9.56 | 9.07 |
| **Transfers and DROs** | | | |
| Number | 608 | 122 | 730 |
| Average Age | 46.18 | 44.30 | 45.87 |
| Average Service | 4.62 | 4.82 | 4.65 |
| **Funds on Account** | | | |
| Number | 895 | 47 | 942 |
| Average Age | 45.63 | 39.77 | 45.34 |
| Average Service | 1.24 | 1.81 | 1.27 |
| **Total Inactive** | | | |
| Number | 1,953 | 212 | 2,165 |
| Average Age | 46.54 | 43.18 | 46.21 |
| Average Service | 4.08 | 5.11 | 4.19 |

## APPENDIX A – MEMBERSHIP INFORMATION

**Changes in Plan Membership: General**

| | Actives | Transfers/ DROS | Non-Vested Terminations | Vested Terminations | Non-Duty Disabled | Duty Disabled | Retired | Beneficiaries | Total |
|---|---|---|---|---|---|---|---|---|---|
| **January 1, 2020** | **5,527** | **406** | **887** | **458** | **155** | **261** | **4,056** | **653** | **12,403** |
| New Entrants | 578 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 578 |
| Rehires | 15 | (2) | (6) | (6) | 0 | 0 | 0 | 0 | 1 |
| Duty Disabilities | (2) | 0 | 0 | (1) | 0 | 3 | 0 | 0 | 0 |
| Non-Duty Disabilities | 0 | 0 | 0 | (1) | 1 | 0 | 0 | 0 | 0 |
| Retirements | (182) | (14) | (3) | (24) | 0 | 0 | 223 | 0 | 0 |
| Vested Terminations | (33) | 0 | 0 | 35 | 0 | 0 | 0 | 0 | 2 |
| Retirements from Safety with General Service | 0 | 0 | 0 | 0 | 0 | 1 | 9 | 1 | 11 |
| Died, With Beneficiaries' Benefit Payable | (3) | 0 | 0 | 0 | 0 | 0 | (39) | 42 | 0 |
| Died, Without Beneficiary, and Other Terminations | (69) | (1) | 63 | 0 | (3) | (5) | (76) | 0 | (91) |
| Transfers | (195) | 225 | (6) | 0 | 0 | 0 | 0 | 0 | 24 |
| Redeposits – AB 2766 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Withdrawals Paid | (117) | (6) | (40) | (9) | 0 | 0 | 0 | 0 | (172) |
| Beneficiary Deaths | 0 | 0 | 0 | 0 | 0 | 0 | 0 | (36) | (36) |
| Domestic Relations Orders | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 4 |
| Data Corrections | (1) | (1) | 0 | (2) | (1) | 3 | (2) | 1 | (3) |
| **January 1, 2021** | **5,518** | **608** | **895** | **450** | **152** | **263** | **4,171** | **664** | **12,721** |

## APPENDIX A – MEMBERSHIP INFORMATION

**Changes in Plan Membership: Safety**

| | Actives | Transfers/ DROS | Non-Vested Terminations | Vested Terminations | Non-Duty Disabled | Duty Disabled | Retired | Beneficiaries | Total |
|---|---|---|---|---|---|---|---|---|---|
| **January 1, 2020** | **843** | **108** | **47** | **40** | **15** | **214** | **647** | **207** | **2,121** |
| New Entrants | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 |
| Rehires | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Duty Disabilities | (2) | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| Non-Duty Disabilities | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Retirements | (31) | (3) | 0 | (3) | 0 | 0 | 36 | 1 | 0 |
| Vested Terminations | (5) | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| Retirements from Safety with General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Died, With Beneficiaries' Benefit Payable | (1) | 0 | 0 | 0 | 0 | (1) | (5) | 8 | 1 |
| Died, Without Beneficiary, and Other Terminations | (5) | 0 | 4 | 0 | (2) | (3) | (3) | (1) | (10) |
| Transfers | 2 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| Redeposits – AB 2766 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Withdrawals Paid | (8) | (1) | (3) | 0 | 0 | 0 | 0 | 0 | (12) |
| Beneficiary Deaths | 0 | 0 | 0 | 0 | 0 | 0 | 0 | (4) | (4) |
| Domestic Relations Orders | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Data Corrections | (1) | 0 | (1) | 1 | (1) | 1 | (1) | 0 | (2) |
| **January 1, 2021** | **832** | **122** | **47** | **43** | **12** | **213** | **674** | **212** | **2,155** |

## APPENDIX A – MEMBERSHIP INFORMATION

**Changes in Plan Membership: All Groups**

| | Actives | Transfers/ DROS | Non-Vested Terminations | Vested Terminations | Non-Duty Disabled | Duty Disabled | Retired | Beneficiaries | Total |
|---|---|---|---|---|---|---|---|---|---|
| **January 1, 2020** | **6,370** | **514** | **934** | **498** | **170** | **475** | **4,703** | **860** | **14,524** |
| New Entrants | 618 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 618 |
| Rehires | 15 | (2) | (6) | (6) | 0 | 0 | 0 | 0 | 1 |
| Duty Disabilities | (4) | 0 | 0 | (1) | 0 | 5 | 0 | 0 | 0 |
| Non-Duty Disabilities | 0 | 0 | 0 | (1) | 1 | 0 | 0 | 0 | 0 |
| Retirements | (213) | (17) | (3) | (27) | 0 | 0 | 259 | 1 | 0 |
| Vested Terminations | (38) | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 2 |
| Retirements from Safety with General Service | 0 | 0 | 0 | 0 | 0 | 1 | 9 | 1 | 11 |
| Died, With Beneficiaries' Benefit Payable | (4) | 0 | 0 | 0 | 0 | (1) | (44) | 50 | 1 |
| Died, Without Beneficiary, and Other Terminations | (74) | (1) | 67 | 0 | (5) | (8) | (79) | (1) | (101) |
| Transfers | (193) | 242 | (6) | 0 | 0 | 0 | 0 | 0 | 43 |
| Redeposits – AB 2766 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Withdrawals Paid | (125) | (7) | (43) | (9) | 0 | 0 | 0 | 0 | (184) |
| Beneficiary Deaths | 0 | 0 | 0 | 0 | 0 | 0 | 0 | (40) | (40) |
| Domestic Relations Orders | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 4 | 6 |
| Data Corrections | (2) | (1) | (1) | (1) | (2) | 4 | (3) | 1 | (5) |
| **January 1, 2021** | **6,350** | **730** | **942** | **493** | **164** | **476** | **4,845** | **876** | **14,876** |

# APPENDIX A – MEMBERSHIP INFORMATION

| Valuation at Year End | Plan Type | Member Count | Annual Payroll | Average Annual Salary | Average Salary Increase |
|---|---|---|---|---|---|
| **2006** | General | 5,234 | $288,178,806 | $55,059 | 18.22% |
| | Safety | 820 | $56,293,820 | $68,651 | 15.52% |
| | **Total** | **6,054** | **$344,472,626** | **$56,900** | **17.68%** |
| **2007** | General | 5,353 | $308,773,122 | $57,682 | 4.76% |
| | Safety | 871 | $62,988,014 | $72,317 | 5.34% |
| | **Total** | **6,224** | **$371,761,136** | **$59,730** | **4.97%** |
| **2008** | General | 5,180 | $315,202,954 | $60,850 | 5.49% |
| | Safety | 900 | $67,127,759 | $74,586 | 3.14% |
| | **Total** | **6,080** | **$382,330,713** | **$62,883** | **5.28%** |
| **2009** | General | 4,990 | $320,526,792 | $64,234 | 5.56% |
| | Safety | 925 | $70,801,157 | $76,542 | 2.62% |
| | **Total** | **5,915** | **$391,327,949** | **$66,159** | **5.21%** |
| **2010** | General | 4,643 | $308,183,424 | $66,376 | 3.33% |
| | Safety | 830 | $64,817,396 | $78,093 | 2.03% |
| | **Total** | **5,473** | **$373,000,820** | **$68,153** | **3.01%** |
| **2011** | General | 4,441 | $298,308,687 | $67,172 | 1.20% |
| | Safety | 813 | $64,041,814 | $78,772 | 0.87% |
| | **Total** | **5,254** | **$362,350,501** | **$68,967** | **1.19%** |
| **2012** | General | 4,492 | $301,505,122 | $67,120 | -0.08% |
| | Safety | 803 | $64,386,900 | $80,183 | 1.79% |
| | **Total** | **5,295** | **$365,892,023** | **$69,101** | **0.19%** |
| **2013** | General | 4,748 | $316,885,044 | $66,741 | -0.57% |
| | Safety | 805 | $65,640,055 | $81,540 | 1.69% |
| | **Total** | **5,553** | **$382,525,098** | **$68,886** | **-0.31%** |
| **2014** | General | 4,879 | $322,836,680 | $66,169 | -0.86% |
| | Safety | 827 | $68,491,483 | $82,819 | 1.57% |
| | **Total** | **5,706** | **$391,328,162** | **$68,582** | **-0.44%** |
| **2015** | General | 5,131 | $340,731,847 | $66,407 | 0.36% |
| | Safety | 793 | $66,456,278 | $83,804 | 1.19% |
| | **Total** | **5,924** | **$407,188,125** | **$68,735** | **0.22%** |
| **2016** | General | 5,291 | $373,202,798 | $70,535 | 6.22% |
| | Safety | 811 | $67,593,920 | $83,346 | -0.55% |
| | **Total** | **6,102** | **$440,796,718** | **$72,238** | **5.10%** |
| **2017** | General | 5,370 | $381,151,442 | $70,978 | 0.63% |
| | Safety | 848 | $70,776,611 | $83,463 | 0.14% |
| | **Total** | **6,218** | **$451,928,053** | **$72,681** | **0.61%** |
| **2018** | General | 5,485 | $401,820,940 | $73,258 | 3.86% |
| | Safety | 860 | $72,680,957 | $84,513 | 1.40% |
| | **Total** | **6,345** | **$474,501,897** | **$74,784** | **3.52%** |
| **2019** | General | 5,526 | $404,710,743 | $73,238 | -0.03% |
| | Safety | 843 | $73,747,564 | $87,482 | 3.51% |
| | **Total** | **6,369** | **$478,458,307** | **$75,123** | **0.45%** |
| **2020** | General | 5,518 | $414,244,475 | $75,071 | 2.50% |
| | Safety | 832 | $75,245,783 | $90,440 | 3.38% |
| | **Total** | **6,350** | **$489,490,258** | **$77,085** | **2.61%** |

Payroll figures represent active member's annualized pay rates on December 31.

# APPENDIX A – MEMBERSHIP INFORMATION

## Schedule of Retirees and Beneficiaries Valuation Data

| Valuation at Year End | Plan Type | Member Retirements | Beneficiary Continuance | Members and Beneficiaries Removed | Total Retirees on Payroll | Annual Retirement Payroll | Average Annual Allowance | Average Allowance Increase |
|---|---|---|---|---|---|---|---|---|
| **2006** | General | 190 | 41 | 102 | 3,107 | 58,634,478 | 18,872 | 3.96% |
| | Safety | 31 | 8 | 11 | 632 | 25,003,422 | 39,562 | 2.14% |
| | **Total** | **221** | **49** | **113** | **3,739** | **83,637,900** | **22,369** | **3.45%** |
| **2007** | General | 199 | 31 | 99 | 3,238 | 65,213,731 | 20,140 | 6.72% |
| | Safety | 38 | 6 | 8 | 668 | 27,396,329 | 41,012 | 3.67% |
| | **Total** | **237** | **37** | **107** | **3,906** | **92,610,060** | **23,710** | **5.99%** |
| **2008** | General | 203 | 30 | 83 | 3,388 | 71,488,335 | 21,100 | 4.77% |
| | Safety | 50 | 10 | 18 | 710 | 30,575,540 | 43,064 | 5.00% |
| | **Total** | **253** | **40** | **101** | **4,098** | **102,063,875** | **24,906** | **5.04%** |
| **2009** | General | 207 | 31 | 104 | 3,522 | 78,988,070 | 22,427 | 6.29% |
| | Safety | 24 | 7 | 11 | 730 | 32,575,964 | 44,625 | 3.62% |
| | **Total** | **231** | **38** | **115** | **4,252** | **111,564,034** | **26,238** | **5.35%** |
| **2010** | General | 242 | 35 | 102 | 3,697 | 85,931,078 | 23,243 | 3.64% |
| | Safety | 65 | 5 | 8 | 792 | 36,354,738 | 45,902 | 2.86% |
| | **Total** | **307** | **40** | **110** | **4,489** | **122,285,816** | **27,241** | **3.82%** |
| **2011** | General | 240 | 42 | 108 | 3,871 | 92,938,361 | 24,009 | 3.30% |
| | Safety | 32 | 4 | 14 | 814 | 38,098,866 | 46,805 | 1.97% |
| | **Total** | **272** | **46** | **122** | **4,685** | **131,037,227** | **27,970** | **2.68%** |
| **2012** | General | 278 | 27 | 135 | 4,041 | 102,025,575 | 25,248 | 5.16% |
| | Safety | 52 | 12 | 20 | 856 | 42,008,598 | 49,075 | 4.85% |
| | **Total** | **330** | **39** | **155** | **4,897** | **144,034,172** | **29,413** | **5.16%** |
| **2013** | General | 213 | 52 | 134 | 4,172 | 109,869,721 | 26,335 | 4.31% |
| | Safety | 22 | 11 | 20 | 869 | 43,548,028 | 50,113 | 2.11% |
| | **Total** | **235** | **63** | **154** | **5,041** | **153,411,632** | **30,433** | **3.47%** |
| **2014** | General | 247 | 51 | 112 | 4,358 | 120,722,240 | 27,701 | 5.19% |
| | Safety | 29 | 14 | 21 | 891 | 45,889,472 | 51,503 | 2.77% |
| | **Total** | **276** | **65** | **133** | **5,249** | **166,611,711** | **31,742** | **4.30%** |
| **2015** | General | 227 | 45 | 136 | 4,494 | 129,928,957 | 28,912 | 4.37% |
| | Safety | 54 | 15 | 19 | 941 | 50,813,875 | 54,000 | 4.85% |
| | **Total** | **281** | **60** | **155** | **5,435** | **180,742,832** | **33,255** | **4.77%** |
| **2016** | General | 251 | 40 | 128 | 4,657 | 139,511,334 | 29,957 | 3.62% |
| | Safety | 40 | 12 | 22 | 971 | 54,508,607 | 56,137 | 3.96% |
| | **Total** | **291** | **52** | **150** | **5,628** | **194,019,941** | **34,474** | **3.66%** |
| **2017** | General | 249 | 49 | 149 | 4,806 | 149,183,295 | 31,041 | 3.62% |
| | Safety | 46 | 12 | 13 | 1,016 | 57,837,517 | 56,927 | 1.41% |
| | **Total** | **295** | **61** | **162** | **5,822** | **207,020,812** | **35,558** | **3.15%** |
| **2018** | General | 290 | 47 | 133 | 5,010 | 161,602,326 | 32,256 | 3.91% |
| | Safety | 39 | 8 | 20 | 1,043 | 61,364,472 | 58,835 | 3.35% |
| | **Total** | **329** | **55** | **153** | **6,053** | **222,966,797** | **36,836** | **3.59%** |
| **2019** | General | 237 | 57 | 179 | 5,125 | 171,791,597 | 33,520 | 3.92% |
| | Safety | 49 | 13 | 22 | 1,083 | 65,822,764 | 60,778 | 3.30% |
| | **Total** | **286** | **70** | **201** | **6,208** | **237,614,311** | **38,276** | **3.91%** |
| **2020** | General | 237 | 47 | 159 | 5,250 | 182,786,202 | 34,816 | 3.87% |
| | Safety | 37 | 10 | 19 | 1,111 | 69,214,609 | 62,299 | 2.50% |
| | **Total** | **274** | **57** | **178** | **6,361** | **252,000,811** | **39,617** | **3.50%** |

Payroll figures represent year end monthly retirement benefits annualized and exclude Post-Employment Healthcare benefits.

## APPENDIX A – MEMBERSHIP INFORMATION

| Fiscal Year | Beginning of Year | Added During Year | Allowances Added (in 000s)[1] | Removed During Year | Allowances Removed | End of Year | Annual Retirement Payroll (in 000s) | Average Allowance Percentage Increase | Average Annual Allowance |
|---|---|---|---|---|---|---|---|---|---|
| 2010 | 4,252 | 353 | 12,918 | 116 | 2,196 | 4,489 | 122,286 | 3.82% | 27,241 |
| 2011 | 4,489 | 318 | 11,544 | 122 | 2,793 | 4,685 | 131,037 | 2.67% | 27,969 |
| 2012 | 4,685 | 361 | 16,400 | 149 | 3,403 | 4,897 | 144,034 | 5.16% | 29,413 |
| 2013 | 4,897 | 297 | 12,908 | 153 | 3,530 | 5,041 | 153,412 | 3.47% | 30,433 |
| 2014 | 5,041 | 340 | 16,230 | 132 | 3,030 | 5,249 | 166,612 | 4.30% | 31,742 |
| 2015 | 5,249 | 341 | 17,776 | 155 | 3,651 | 5,435 | 180,737 | 4.77% | 33,255 |
| 2016 | 5,435 | 343 | 17,151 | 150 | 3,868 | 5,628 | 194,020 | 3.66% | 34,474 |
| 2017 | 5,628 | 355 | 17,288 | 161 | 4,287 | 5,822 | 207,021 | 3.15% | 35,558 |
| 2018 | 5,822 | 382 | 19,839 | 151 | 3,893 | 6,053 | 222,967 | 3.59% | 36,836 |
| 2019 | 6,053 | 355 | 20,574 | 200 | 5,927 | 6,208 | 237,614 | 3.91% | 38,276 |
| 2020 | 6,208 | 333 | 19,967 | 180 | 5,580 | 6,361 | 252,001 | 3.50% | 39,617 |

[1] Includes COLA amounts not included in previous year's Annual Allowance totals.

## APPENDIX A – MEMBERSHIP INFORMATION

**Schedule of Average Monthly Benefit Payments**

| | Number of Years of Service Credit | | | | | | |
|---|---|---|---|---|---|---|---|
| **Retirement Effective Date** | **0-4** | **5-9** | **10-14** | **15-19** | **20-24** | **25-29** | **30 & Over** |
| **1/2/11 to 1/1/12** | | | | | | | |
| **Retirees** | | | | | | | |
| General Members | | | | | | | |
| Average Benefits | $470 | $1,205 | $1,464 | $2,615 | $3,302 | $3,968 | $4,670 |
| Average Final Compensation | $5,518 | $5,903 | $4,928 | $6,463 | $6,110 | $5,541 | $5,570 |
| Count | 12 | 26 | 56 | 27 | 41 | 16 | 39 |
| Safety Members | | | | | | | |
| Average Benefits | $922 | $1,112 | $2,551 | $3,970 | $7,499 | $7,790 | $10,586 |
| Average Final Compensation | $9,746 | $4,483 | $5,290 | $7,767 | $10,430 | $9,162 | $10,797 |
| Count | 2 | 6 | 3 | 3 | 4 | 5 | 3 |
| **Survivors/DROs** | | | | | | | |
| General Members | | | | | | | |
| Average Benefits | $622 | $890 | $773 | $1,367 | $1,838 | $2,039 | $3,281 |
| Average Final Compensation | $9,807 | $4,816 | $3,578 | $4,371 | $4,108 | $3,364 | $5,366 |
| Count | 5 | 9 | 11 | 10 | 5 | 5 | 5 |
| Safety Members | | | | | | | |
| Average Benefits | $825 | $859 | $1,591 | $3,334 | $0 | $0 | $3,829 |
| Average Final Compensation | $9,779 | $4,960 | $2,795 | $9,010 | $0 | $0 | $5,257 |
| Count | 1 | 1 | 2 | 1 | 0 | 0 | 1 |
| **1/2/12 to 1/1/13** | | | | | | | |
| **Retirees** | | | | | | | |
| General Members | | | | | | | |
| Average Benefits | $517 | $1,077 | $1,481 | $2,129 | $2,729 | $4,198 | $6,317 |
| Average Final Compensation | $7,532 | $5,925 | $5,233 | $4,900 | $5,338 | $6,449 | $7,295 |
| Count | 19 | 31 | 56 | 36 | 42 | 30 | 44 |
| Safety Members | | | | | | | |
| Average Benefits | $429 | $2,194 | $3,026 | $4,186 | $5,302 | $9,183 | $13,206 |
| Average Final Compensation | $6,793 | $5,812 | $6,636 | $8,124 | $7,306 | $13,360 | $13,606 |
| Count | 4 | 5 | 7 | 3 | 14 | 11 | 5 |
| **Survivors/DROs** | | | | | | | |
| General Members | | | | | | | |
| Average Benefits | $331 | $1,189 | $1,017 | $1,525 | $1,274 | $3,105 | $2,783 |
| Average Final Compensation | $4,482 | $3,558 | $2,664 | $2,604 | $3,639 | $4,794 | $3,940 |
| Count | 4 | 4 | 8 | 3 | 1 | 2 | 4 |
| Safety Members | | | | | | | |
| Average Benefits | $0 | $1,039 | $2,423 | $3,450 | $3,573 | $3,206 | $4,887 |
| Average Final Compensation | $0 | $6,972 | $7,561 | $1,358 | $1,776 | $3,836 | $6,169 |
| Count | 0 | 2 | 2 | 2 | 1 | 3 | 2 |

## APPENDIX A – MEMBERSHIP INFORMATION

**Schedule of Average Monthly Benefit Payments**

| | Number of Years of Service Credit | | | | | | |
|---|---|---|---|---|---|---|---|
| **Retirement Effective Date** | **0-4** | **5-9** | **10-14** | **15-19** | **20-24** | **25-29** | **30 & Over** |
| **1/2/13 to 1/1/14** | | | | | | | |
| **Retirees** | | | | | | | |
| General Members | | | | | | | |
| Average Benefits | $433 | $1,410 | $1,589 | $2,556 | $3,149 | $4,241 | $5,837 |
| Average Final Compensation | $7,695 | $7,279 | $5,787 | $6,125 | $6,132 | $6,467 | $6,718 |
| Count | 10 | 25 | 40 | 35 | 35 | 26 | 29 |
| Safety Members | | | | | | | |
| Average Benefits | $1,165 | $1,435 | $2,621 | $3,501 | $4,260 | $11,134 | $9,279 |
| Average Final Compensation | $9,478 | $7,434 | $6,316 | $7,044 | $5,599 | $13,945 | $9,670 |
| Count | 3 | 2 | 7 | 4 | 1 | 2 | 2 |
| **Survivors/DROs** | | | | | | | |
| General Members | | | | | | | |
| Average Benefits | $687 | $1,000 | $883 | $1,182 | $2,063 | $1,572 | $2,985 |
| Average Final Compensation | $3,804 | $4,531 | $3,953 | $3,163 | $3,722 | $1,821 | $3,681 |
| Count | 6 | 9 | 15 | 7 | 5 | 2 | 5 |
| Safety Members | | | | | | | |
| Average Benefits | $650 | $3,101 | $1,385 | $2,012 | $1,918 | $3,745 | $4,936 |
| Average Final Compensation | $4,955 | $10,868 | $2,506 | $3,966 | $2,525 | $6,184 | $5,381 |
| Count | 3 | 1 | 2 | 1 | 2 | 1 | 1 |
| **1/2/14 to 1/1/15** | | | | | | | |
| **Retirees** | | | | | | | |
| General Members | | | | | | | |
| Average Benefits | $618 | $1,120 | $1,601 | $2,635 | $4,409 | $4,672 | $6,283 |
| Average Final Compensation | $9,300 | $6,612 | $5,529 | $6,454 | $8,122 | $6,944 | $7,635 |
| Count | 9 | 25 | 49 | 46 | 23 | 45 | 41 |
| Safety Members | | | | | | | |
| Average Benefits | $380 | $1,190 | $3,433 | $4,546 | $3,993 | $7,412 | $11,302 |
| Average Final Compensation | $8,910 | $6,591 | $7,642 | $8,863 | $6,031 | $9,013 | $11,761 |
| Count | 1 | 1 | 3 | 5 | 4 | 6 | 1 |
| **Survivors/DROs** | | | | | | | |
| General Members | | | | | | | |
| Average Benefits | $475 | $654 | $1,087 | $814 | $2,160 | $1,680 | $2,941 |
| Average Final Compensation | $5,928 | $4,152 | $2,879 | $2,457 | $4,998 | $3,887 | $8,068 |
| Count | 11 | 6 | 11 | 6 | 5 | 3 | 5 |
| Safety Members | | | | | | | |
| Average Benefits | $2,030 | $2,464 | $2,890 | $3,326 | $2,002 | $3,569 | $3,499 |
| Average Final Compensation | $9,251 | $8,581 | $5,515 | $4,817 | $4,850 | $5,955 | $2,018 |
| Count | 2 | 3 | 4 | 1 | 1 | 1 | 2 |

## APPENDIX A – MEMBERSHIP INFORMATION

**Schedule of Average Monthly Benefit Payments**

| | Number of Years of Service Credit | | | | | | |
|---|---|---|---|---|---|---|---|
| **Retirement Effective Date** | **0-4** | **5-9** | **10-14** | **15-19** | **20-24** | **25-29** | **30 & Over** |
| **1/2/15 to 1/1/16** | | | | | | | |
| **Retirees** | | | | | | | |
| General Members | | | | | | | |
| Average Benefits | $330 | $988 | $1,661 | $2,449 | $3,277 | $4,342 | $5,770 |
| Average Final Compensation | $5,778 | $5,953 | $5,826 | $5,723 | $5,918 | $6,501 | $6,781 |
| Count | 12 | 27 | 36 | 43 | 26 | 29 | 37 |
| Safety Members | | | | | | | |
| Average Benefits | $585 | $1,352 | $2,452 | $3,959 | $5,597 | $8,061 | $10,770 |
| Average Final Compensation | $7,403 | $5,334 | $6,269 | $6,943 | $8,120 | $9,621 | $11,481 |
| Count | 2 | 2 | 4 | 3 | 10 | 21 | 6 |
| **Survivors/DROs** | | | | | | | |
| General Members | | | | | | | |
| Average Benefits | $376 | $987 | $999 | $1,612 | $3,184 | $2,709 | $5,276 |
| Average Final Compensation | $3,328 | $5,939 | $3,359 | $4,532 | $8,017 | $5,312 | $5,850 |
| Count | 4 | 10 | 9 | 4 | 4 | 3 | 5 |
| Safety Members | | | | | | | |
| Average Benefits | $530 | $2,019 | $2,184 | $1,970 | $2,902 | $4,784 | $5,026 |
| Average Final Compensation | $6,052 | $11,395 | $9,909 | $3,887 | $4,783 | $6,788 | $5,405 |
| Count | 2 | 1 | 2 | 1 | 2 | 4 | 3 |
| **1/2/16 to 1/1/17** | | | | | | | |
| **Retirees** | | | | | | | |
| General Members | | | | | | | |
| Average Benefits | $310 | $1,100 | $1,823 | $2,487 | $3,779 | $3,911 | $5,931 |
| Average Final Compensation | $6,616 | $5,885 | $6,368 | $5,950 | $6,805 | $5,756 | $7,132 |
| Count | 21 | 24 | 54 | 48 | 24 | 31 | 42 |
| Safety Members | | | | | | | |
| Average Benefits | $3,817 | $1,759 | $2,546 | $6,290 | $5,510 | $9,513 | $12,671 |
| Average Final Compensation | $7,634 | $5,985 | $6,353 | $11,452 | $8,566 | $11,959 | $13,175 |
| Count | 1 | 6 | 6 | 3 | 7 | 12 | 4 |
| **Survivors/DROs** | | | | | | | |
| General Members | | | | | | | |
| Average Benefits | $313 | $858 | $1,065 | $1,596 | $3,214 | $1,720 | $2,769 |
| Average Final Compensation | $5,726 | $4,674 | $4,527 | $4,648 | $6,051 | $3,809 | $3,313 |
| Count | 5 | 7 | 11 | 6 | 2 | 5 | 1 |
| Safety Members | | | | | | | |
| Average Benefits | $495 | $2,235 | $1,253 | $1,661 | $4,086 | $5,943 | $4,712 |
| Average Final Compensation | $7,339 | $9,642 | $3,842 | $2,755 | $5,646 | $8,003 | $4,803 |
| Count | 2 | 4 | 1 | 1 | 1 | 1 | 2 |

## APPENDIX A – MEMBERSHIP INFORMATION

**Schedule of Average Monthly Benefit Payments**

| | Number of Years of Service Credit | | | | | | |
|---|---|---|---|---|---|---|---|
| **Retirement Effective Date** | **0-4** | **5-9** | **10-14** | **15-19** | **20-24** | **25-29** | **30 & Over** |
| **1/2/17 to 1/1/18** | | | | | | | |
| **Retirees** | | | | | | | |
| General Members | | | | | | | |
| Average Benefits | $377 | $1,188 | $2,070 | $2,390 | $3,665 | $4,847 | $6,187 |
| Average Final Compensation | $9,793 | $6,524 | $6,533 | $5,839 | $6,699 | $7,055 | $7,391 |
| Count | 23 | 35 | 42 | 48 | 20 | 34 | 33 |
| Safety Members | | | | | | | |
| Average Benefits | $787 | $1,223 | $2,212 | $3,441 | $5,973 | $7,370 | $9,169 |
| Average Final Compensation | $9,858 | $5,688 | $5,842 | $6,681 | $9,020 | $9,264 | $9,050 |
| Count | 5 | 4 | 6 | 9 | 6 | 8 | 1 |
| **Survivors/DROs** | | | | | | | |
| General Members | | | | | | | |
| Average Benefits | $701 | $992 | $1,442 | $1,078 | $1,941 | $1,746 | $4,828 |
| Average Final Compensation | $5,325 | $4,183 | $4,550 | $3,587 | $5,038 | $2,502 | $5,368 |
| Count | 11 | 10 | 8 | 7 | 3 | 4 | 4 |
| Safety Members | | | | | | | |
| Average Benefits | $667 | $2,413 | $1,292 | $0 | $0 | $3,363 | $5,834 |
| Average Final Compensation | $5,605 | $6,310 | $3,454 | $0 | $0 | $4,597 | $3,354 |
| Count | 2 | 3 | 2 | 0 | 0 | 1 | 3 |
| **1/2/18 to 1/1/19** | | | | | | | |
| **Retirees** | | | | | | | |
| General Members | | | | | | | |
| Average Benefits | $596 | $1,166 | $1,759 | $2,671 | $3,522 | $5,202 | $6,036 |
| Average Final Compensation | $9,601 | $6,704 | $5,920 | $6,603 | $6,555 | $7,633 | $6,975 |
| Count | 21 | 45 | 47 | 55 | 25 | 33 | 39 |
| Safety Members | | | | | | | |
| Average Benefits | $2,721 | $2,622 | $2,166 | $3,313 | $3,997 | $7,453 | $10,935 |
| Average Final Compensation | $5,485 | $8,987 | $6,168 | $6,135 | $6,442 | $9,615 | $11,725 |
| Count | 1 | 3 | 5 | 5 | 8 | 7 | 4 |
| **Survivors/DROs** | | | | | | | |
| General Members | | | | | | | |
| Average Benefits | $224 | $659 | $1,201 | $1,204 | $2,150 | $2,590 | $2,759 |
| Average Final Compensation | $4,220 | $3,482 | $5,324 | $4,292 | $3,513 | $3,538 | $4,382 |
| Count | 3 | 5 | 10 | 10 | 1 | 5 | 9 |
| Safety Members | | | | | | | |
| Average Benefits | $0 | $1,724 | $3,203 | $0 | $1,201 | $0 | $6,213 |
| Average Final Compensation | $0 | $6,376 | $4,065 | $0 | $3,140 | $0 | $4,768 |
| Count | 0 | 3 | 1 | 0 | 1 | 0 | 3 |

## APPENDIX A – MEMBERSHIP INFORMATION

**Schedule of Average Monthly Benefit Payments**

| | Number of Years of Service Credit | | | | | | |
|---|---|---|---|---|---|---|---|
| **Retirement Effective Date** | **0-4** | **5-9** | **10-14** | **15-19** | **20-24** | **25-29** | **30 & Over** |
| **1/2/19 to 1/1/20** | | | | | | | |
| **Retirees** | | | | | | | |
| General Members | | | | | | | |
| Average Benefits | $345 | $1,131 | $1,780 | $3,030 | $3,669 | $4,796 | $7,232 |
| Average Final Compensation | $8,121 | $7,276 | $6,189 | $6,988 | $7,070 | $7,062 | $8,554 |
| Count | 20 | 35 | 40 | 36 | 29 | 30 | 37 |
| Safety Members | | | | | | | |
| Average Benefits | $596 | $2,060 | $3,057 | $3,965 | $4,173 | $9,630 | $17,094 |
| Average Final Compensation | $9,587 | $6,917 | $6,658 | $7,484 | $7,087 | $11,287 | $17,300 |
| Count | 6 | 5 | 5 | 6 | 11 | 10 | 5 |
| **Survivors/DROs** | | | | | | | |
| General Members | | | | | | | |
| Average Benefits | $235 | $927 | $994 | $1,599 | $2,453 | $2,930 | $4,532 |
| Average Final Compensation | $6,898 | $5,691 | $3,777 | $5,652 | $4,288 | $4,213 | $5,778 |
| Count | 6 | 8 | 12 | 7 | 8 | 6 | 10 |
| Safety Members | | | | | | | |
| Average Benefits | $712 | $1,280 | $1,831 | $0 | $3,258 | $4,435 | $6,246 |
| Average Final Compensation | $7,533 | $7,809 | $5,374 | $0 | $4,504 | $4,987 | $6,460 |
| Count | 2 | 2 | 3 | 0 | 3 | 2 | 1 |
| **1/2/20 to 1/1/21** | | | | | | | |
| **Retirees** | | | | | | | |
| General Members | | | | | | | |
| Average Benefits | $344 | $1,373 | $1,926 | $3,086 | $3,108 | $4,527 | $6,734 |
| Average Final Compensation | $7,961 | $9,038 | $6,637 | $6,948 | $5,859 | $6,790 | $8,250 |
| Count | 21 | 32 | 36 | 35 | 33 | 26 | 50 |
| Safety Members | | | | | | | |
| Average Benefits | $430 | $1,750 | $2,749 | $3,265 | $4,763 | $7,209 | $13,386 |
| Average Final Compensation | $9,072 | $6,259 | $6,672 | $6,689 | $7,515 | $9,083 | $13,811 |
| Count | 3 | 2 | 4 | 4 | 12 | 11 | 3 |
| **Survivors/DROs** | | | | | | | |
| General Members | | | | | | | |
| Average Benefits | $505 | $735 | $990 | $1,096 | $1,547 | $1,904 | $3,690 |
| Average Final Compensation | $5,989 | $6,865 | $3,653 | $3,254 | $3,428 | $3,781 | $4,974 |
| Count | 4 | 4 | 8 | 5 | 5 | 6 | 8 |
| Safety Members | | | | | | | |
| Average Benefits | $1,246 | $0 | $1,622 | $4,494 | $0 | $5,142 | $6,753 |
| Average Final Compensation | $6,483 | $0 | $2,296 | $9,747 | $0 | $5,684 | $7,710 |
| Count | 2 | 0 | 2 | 2 | 0 | 1 | 2 |

## APPENDIX A – MEMBERSHIP INFORMATION

### DISTRIBUTION OF GENERAL ACTIVE MEMBERS
BY AGE AND SERVICE AS OF JANUARY 1, 2021

COUNTS BY AGE/SERVICE

| | Service | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Age** | **Under 1** | **1 to 4** | **5 to 9** | **10 to 14** | **15 to 19** | **20 to 24** | **25 to 29** | **30 to 34** | **35 to 39** | **40 & up** | **Total** |
| **Under 25** | 26 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **51** |
| **25 to 29** | 76 | 264 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **356** |
| **30 to 34** | 67 | 398 | 183 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | **652** |
| **35 to 39** | 40 | 323 | 231 | 91 | 32 | 0 | 0 | 0 | 0 | 0 | **717** |
| **40 to 44** | 32 | 260 | 245 | 120 | 136 | 31 | 0 | 0 | 0 | 0 | **824** |
| **45 to 49** | 27 | 215 | 180 | 132 | 158 | 110 | 13 | 1 | 0 | 0 | **836** |
| **50 to 54** | 20 | 146 | 141 | 98 | 142 | 105 | 46 | 26 | 1 | 0 | **725** |
| **55 to 59** | 14 | 130 | 117 | 75 | 120 | 95 | 68 | 63 | 13 | 0 | **695** |
| **60 to 64** | 7 | 70 | 87 | 52 | 76 | 83 | 48 | 34 | 11 | 2 | **470** |
| **65 to 69** | 3 | 17 | 34 | 18 | 16 | 27 | 11 | 10 | 7 | 3 | **146** |
| **70 & up** | 0 | 4 | 12 | 11 | 5 | 8 | 2 | 1 | 1 | 2 | **46** |
| **Total** | **312** | **1,852** | **1,246** | **601** | **685** | **459** | **188** | **135** | **33** | **7** | **5,518** |

Average Age = 45.58 Average Service = 9.54

## APPENDIX A – MEMBERSHIP INFORMATION

### DISTRIBUTION OF SAFETY ACTIVE MEMBERS
BY AGE AND SERVICE AS OF JANUARY 1, 2021

COUNTS BY AGE/SERVICE

| | Service | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Age | Under 1 | 1 to 4 | 5 to 9 | 10 to 14 | 15 to 19 | 20 to 24 | 25 to 29 | 30 to 34 | 35 to 39 | 40 & up | Total |
| Under 25 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 |
| 25 to 29 | 1 | 78 | 14 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 94 |
| 30 to 34 | 3 | 65 | 54 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 130 |
| 35 to 39 | 1 | 33 | 40 | 73 | 23 | 2 | 0 | 0 | 0 | 0 | 172 |
| 40 to 44 | 1 | 15 | 11 | 31 | 51 | 18 | 0 | 0 | 0 | 0 | 127 |
| 45 to 49 | 0 | 7 | 9 | 22 | 45 | 50 | 7 | 0 | 0 | 0 | 140 |
| 50 to 54 | 1 | 7 | 2 | 9 | 23 | 32 | 8 | 4 | 0 | 0 | 86 |
| 55 to 59 | 0 | 3 | 6 | 6 | 5 | 8 | 6 | 5 | 0 | 0 | 39 |
| 60 to 64 | 0 | 0 | 4 | 2 | 3 | 3 | 0 | 0 | 0 | 0 | 12 |
| 65 to 69 | 0 | 0 | 1 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 5 |
| 70 & up | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 3 |
| Total | 7 | 232 | 141 | 154 | 152 | 116 | 21 | 9 | 0 | 0 | 832 |

Average Age = 40.24 Average Service = 11.27

## APPENDIX A – MEMBERSHIP INFORMATION

### PAYROLL DISTRIBUTION OF GENERAL ACTIVE PARTICIPANTS
BY AGE AND SERVICE AS OF JANUARY 1, 2021

COUNTS BY AGE/SERVICE

| | Service | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Age** | **Under 1** | **1 to 4** | **5 to 9** | **10 to 14** | **15 to 19** | **20 to 24** | **25 to 29** | **30 to 34** | **35 to 39** | **40 & up** | **Total** |
| **Under 25** | 57,601 | 46,524 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **52,171** |
| **25 to 29** | 61,148 | 62,237 | 55,381 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **61,697** |
| **30 to 34** | 63,027 | 66,193 | 74,209 | 74,968 | 0 | 0 | 0 | 0 | 0 | 0 | **68,171** |
| **35 to 39** | 68,686 | 68,488 | 73,970 | 73,214 | 69,641 | 0 | 0 | 0 | 0 | 0 | **70,916** |
| **40 to 44** | 70,806 | 70,110 | 75,328 | 80,605 | 82,400 | 71,392 | 0 | 0 | 0 | 0 | **75,294** |
| **45 to 49** | 60,193 | 69,154 | 73,453 | 93,435 | 86,795 | 79,568 | 87,453 | 71,291 | 0 | 0 | **78,616** |
| **50 to 54** | 74,173 | 71,673 | 71,589 | 90,554 | 87,950 | 84,088 | 79,983 | 80,545 | 44,581 | 0 | **80,072** |
| **55 to 59** | 72,168 | 76,771 | 80,004 | 81,098 | 77,984 | 76,201 | 86,514 | 86,983 | 86,724 | 0 | **79,886** |
| **60 to 64** | 68,556 | 74,528 | 76,021 | 76,516 | 76,926 | 74,441 | 83,556 | 92,181 | 78,026 | 56,494 | **77,512** |
| **65 to 69** | 85,963 | 87,022 | 73,804 | 108,729 | 84,995 | 71,235 | 75,360 | 90,211 | 92,198 | 100,660 | **83,325** |
| **70 & up** | 0 | 75,782 | 105,477 | 115,951 | 69,673 | 73,419 | 58,079 | 61,722 | 163,901 | 134,794 | **95,465** |
| **Total** | **64,864** | **68,359** | **74,698** | **85,086** | **82,555** | **77,828** | **83,271** | **86,988** | **86,047** | **97,794** | **75,071** |

Average Salary = $75,071

## APPENDIX A – MEMBERSHIP INFORMATION

### PAYROLL DISTRIBUTION OF SAFETY ACTIVE PARTICIPANTS
BY AGE AND SERVICE AS OF JANUARY 1, 2021

COUNTS BY AGE/SERVICE

| | Service | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Age | Under 1 | 1 to 4 | 5 to 9 | 10 to 14 | 15 to 19 | 20 to 24 | 25 to 29 | 30 to 34 | 35 to 39 | 40 & up | Total |
| Under 25 | 0 | 64,484 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **64,484** |
| 25 to 29 | 50,494 | 70,994 | 84,178 | 118,088 | 0 | 0 | 0 | 0 | 0 | 0 | **73,240** |
| 30 to 34 | 53,060 | 73,015 | 86,603 | 106,322 | 0 | 0 | 0 | 0 | 0 | 0 | **80,248** |
| 35 to 39 | 57,886 | 77,044 | 86,991 | 99,443 | 100,900 | 78,944 | 0 | 0 | 0 | 0 | **91,965** |
| 40 to 44 | 40,893 | 82,999 | 88,364 | 102,885 | 92,733 | 120,481 | 0 | 0 | 0 | 0 | **97,207** |
| 45 to 49 | 0 | 109,036 | 86,559 | 93,439 | 104,329 | 105,127 | 103,706 | 0 | 0 | 0 | **101,965** |
| 50 to 54 | 85,663 | 95,192 | 83,087 | 80,710 | 91,554 | 101,190 | 94,342 | 104,310 | 0 | 0 | **94,888** |
| 55 to 59 | 0 | 109,672 | 116,946 | 95,692 | 82,139 | 90,449 | 106,603 | 117,908 | 0 | 0 | **101,751** |
| 60 to 64 | 0 | 0 | 110,578 | 72,976 | 87,022 | 75,592 | 0 | 0 | 0 | 0 | **89,676** |
| 65 to 69 | 0 | 0 | 111,362 | 115,773 | 76,636 | 72,139 | 0 | 0 | 0 | 0 | **90,509** |
| 70 & up | 0 | 0 | 0 | 115,773 | 0 | 84,918 | 0 | 0 | 0 | 0 | **95,203** |
| **Total** | **56,302** | **74,902** | **88,704** | **98,384** | **96,550** | **103,563** | **100,967** | **111,864** | **0** | **0** | **90,440** |

Average Salary = $90,440

## APPENDIX A – MEMBERSHIP INFORMATION

**Service Retired Benefits**

| Current Age | General | | Safety | | Total | |
|---|---|---|---|---|---|---|
| | Number | Annual Average Benefit | Number | Annual Average Benefit | Number | Annual Average Benefit |
| 0-24 | 0 | $0 | 0 | $0 | 0 | $0 |
| 25-29 | 0 | $0 | 0 | $0 | 0 | $0 |
| 30-34 | 0 | $0 | 0 | $0 | 0 | $0 |
| 35-39 | 0 | $0 | 0 | $0 | 0 | $0 |
| 40-44 | 0 | $0 | 1 | $29,237 | 1 | $29,237 |
| 45-49 | 0 | $0 | 12 | $35,791 | 12 | $35,791 |
| 50-54 | 78 | $17,311 | 54 | $67,264 | 132 | $37,746 |
| 55-59 | 247 | $28,130 | 104 | $72,708 | 351 | $41,338 |
| 60-64 | 606 | $37,851 | 136 | $75,451 | 742 | $44,742 |
| 65-69 | 952 | $43,469 | 113 | $83,324 | 1,065 | $47,698 |
| 70-74 | 1,029 | $41,499 | 129 | $79,336 | 1,158 | $45,714 |
| 75-79 | 594 | $38,206 | 75 | $62,558 | 669 | $40,936 |
| 80-84 | 346 | $33,866 | 32 | $43,628 | 378 | $34,692 |
| 85-89 | 188 | $29,008 | 10 | $33,365 | 198 | $29,228 |
| 90-94 | 89 | $30,623 | 7 | $92,074 | 96 | $35,104 |
| 95+ | 42 | $21,152 | 1 | $114,816 | 43 | $23,330 |
| **All Ages** | 4,171 | $38,073 | 674 | $72,322 | 4,845 | $42,837 |

**Non-Duty Disabled Benefits**

| Current Age | General | | Safety | | Total | |
|---|---|---|---|---|---|---|
| | Number | Annual Average Benefit | Number | Annual Average Benefit | Number | Annual Average Benefit |
| 0-24 | 0 | $0 | 0 | $0 | 0 | $0 |
| 25-29 | 0 | $0 | 0 | $0 | 0 | $0 |
| 30-34 | 0 | $0 | 0 | $0 | 0 | $0 |
| 35-39 | 1 | $18,114 | 0 | $0 | 1 | $18,114 |
| 40-44 | 3 | $15,992 | 0 | $0 | 3 | $15,992 |
| 45-49 | 8 | $16,796 | 2 | $15,670 | 10 | $16,571 |
| 50-54 | 8 | $19,791 | 0 | $0 | 8 | $19,791 |
| 55-59 | 20 | $20,365 | 0 | $0 | 20 | $20,365 |
| 60-64 | 30 | $19,372 | 2 | $49,287 | 32 | $21,242 |
| 65-69 | 25 | $19,088 | 3 | $24,849 | 28 | $19,705 |
| 70-74 | 29 | $16,958 | 1 | $35,139 | 30 | $17,564 |
| 75-79 | 18 | $16,452 | 2 | $57,744 | 20 | $20,581 |
| 80-84 | 5 | $19,096 | 1 | $22,109 | 6 | $19,598 |
| 85-89 | 2 | $22,653 | 1 | $23,693 | 3 | $22,999 |
| 90-94 | 1 | $9,849 | 0 | $0 | 1 | $9,849 |
| 95+ | 2 | $12,514 | 0 | $0 | 2 | $12,514 |
| **All Ages** | 152 | $18,342 | 12 | $33,408 | 164 | $19,445 |

## APPENDIX A – MEMBERSHIP INFORMATION

**Duty Disabled Benefits**

| Current Age | General | | Safety | | Total | |
|---|---|---|---|---|---|---|
| | Number | Annual Average Benefit | Number | Annual Average Benefit | Number | Annual Average Benefit |
| 0-24 | 0 | $0 | 0 | $0 | 0 | $0 |
| 25-29 | 0 | $0 | 0 | $0 | 0 | $0 |
| 30-34 | 0 | $0 | 0 | $0 | 0 | $0 |
| 35-39 | 3 | $157 | 5 | $39,439 | 8 | $24,708 |
| 40-44 | 5 | $23,824 | 6 | $39,272 | 11 | $32,250 |
| 45-49 | 11 | $10,996 | 17 | $38,051 | 28 | $27,422 |
| 50-54 | 19 | $19,922 | 18 | $42,418 | 37 | $30,866 |
| 55-59 | 24 | $23,953 | 44 | $54,072 | 68 | $43,442 |
| 60-64 | 44 | $27,110 | 33 | $66,560 | 77 | $44,017 |
| 65-69 | 61 | $29,617 | 31 | $59,557 | 92 | $39,705 |
| 70-74 | 58 | $32,456 | 33 | $66,569 | 91 | $44,827 |
| 75-79 | 25 | $28,159 | 16 | $56,480 | 41 | $39,211 |
| 80-84 | 6 | $28,883 | 8 | $63,933 | 14 | $48,912 |
| 85-89 | 6 | $27,225 | 0 | $0 | 6 | $27,225 |
| 90-94 | 0 | $0 | 2 | $104,033 | 2 | $104,033 |
| 95+ | 1 | $49,042 | 0 | $0 | 1 | $49,042 |
| **All Ages** | 263 | $27,245 | 213 | $56,738 | 476 | $40,443 |

**Surviving Beneficiary Benefits (all benefit types)**

| Current Age | General | | Safety | | Total | |
|---|---|---|---|---|---|---|
| | Number | Annual Average Benefit | Number | Annual Average Benefit | Number | Annual Average Benefit |
| 0-24 | 5 | $21,333 | 1 | $16,223 | 6 | $20,481 |
| 25-29 | 4 | $14,563 | 0 | $0 | 4 | $14,563 |
| 30-34 | 3 | $17,984 | 0 | $0 | 3 | $17,984 |
| 35-39 | 1 | $10,279 | 0 | $0 | 1 | $10,279 |
| 40-44 | 1 | $13,246 | 0 | $0 | 1 | $13,246 |
| 45-49 | 8 | $13,794 | 4 | $44,216 | 12 | $23,935 |
| 50-54 | 18 | $13,529 | 10 | $34,581 | 28 | $21,047 |
| 55-59 | 43 | $13,952 | 25 | $20,658 | 68 | $16,418 |
| 60-64 | 60 | $17,264 | 30 | $29,039 | 90 | $21,189 |
| 65-69 | 88 | $18,762 | 26 | $41,166 | 114 | $23,871 |
| 70-74 | 123 | $24,335 | 35 | $42,473 | 158 | $28,352 |
| 75-79 | 111 | $23,283 | 34 | $39,060 | 145 | $26,983 |
| 80-84 | 77 | $20,046 | 25 | $53,273 | 102 | $28,190 |
| 85-89 | 66 | $21,966 | 13 | $36,741 | 79 | $24,398 |
| 90-94 | 34 | $21,458 | 6 | $40,966 | 40 | $24,385 |
| 95+ | 22 | $38,569 | 3 | $39,017 | 25 | $38,622 |
| **All Ages** | 664 | $21,133 | 212 | $37,659 | 876 | $25,132 |

## APPENDIX A – MEMBERSHIP INFORMATION

**Assumed Probabilities of Separation from Active Membership**

| Age | Non-Duty Death | Ordinary Disability | Service Retirement[1] | Duty Death | Duty Disability |
|---|---|---|---|---|---|
| **General Members – Male** | | | | | |
| 20 | 0.0004 | 0.000 | 0.000 | 0.000 | 0.001 |
| 25 | 0.0003 | 0.000 | 0.000 | 0.000 | 0.001 |
| 30 | 0.0004 | 0.000 | 0.000 | 0.000 | 0.001 |
| 35 | 0.0005 | 0.000 | 0.000 | 0.000 | 0.001 |
| 40 | 0.0006 | 0.001 | 0.000 | 0.000 | 0.004 |
| 45 | 0.0008 | 0.001 | 0.000 | 0.000 | 0.004 |
| 50 | 0.0012 | 0.001 | 0.030 | 0.000 | 0.003 |
| 55 | 0.0019 | 0.001 | 0.065 | 0.000 | 0.004 |
| 60 | 0.0029 | 0.001 | 0.090 | 0.000 | 0.004 |
| 65 | 0.0041 | 0.001 | 0.250 | 0.000 | 0.005 |
| **General Members – Female** | | | | | |
| 20 | 0.0001 | 0.001 | 0.000 | 0.000 | 0.000 |
| 25 | 0.0001 | 0.001 | 0.000 | 0.000 | 0.000 |
| 30 | 0.0002 | 0.001 | 0.000 | 0.000 | 0.000 |
| 35 | 0.0003 | 0.001 | 0.000 | 0.000 | 0.000 |
| 40 | 0.0004 | 0.002 | 0.000 | 0.000 | 0.001 |
| 45 | 0.0005 | 0.002 | 0.000 | 0.000 | 0.001 |
| 50 | 0.0008 | 0.003 | 0.035 | 0.000 | 0.001 |
| 55 | 0.0012 | 0.004 | 0.035 | 0.000 | 0.001 |
| 60 | 0.0019 | 0.005 | 0.125 | 0.000 | 0.002 |
| 65 | 0.0027 | 0.005 | 0.250 | 0.000 | 0.002 |

[1] Lower rates assumed for members with less than 10 years of service, and higher rates assumed for members with at least 30 years of service.

The probabilities for each cause of separation represent the likelihood that a given member will separate at a particular age for the indicated reason. As an example, if the probability of separation of a male general member at age 20 is 0.036, that indicates that 3.6% of active general members are expected to separate from service during the year. Rates of Duty and Non-Duty Death are for active members who reach the given age during valuation year.

## APPENDIX A – MEMBERSHIP INFORMATION

**Assumed Probabilities of Separation from Active Membership**

| Age | Non-Duty Death | Ordinary Disability | Service Retirement[1] | Duty Death | Duty Disability |
|---|---|---|---|---|---|
| **Safety Members – Male** | | | | | |
| 20 | 0.0004 | 0.000 | 0.050 | 0.0004 | 0.000 |
| 25 | 0.0004 | 0.000 | 0.050 | 0.0004 | 0.001 |
| 30 | 0.0005 | 0.000 | 0.050 | 0.0005 | 0.001 |
| 35 | 0.0006 | 0.000 | 0.050 | 0.0006 | 0.002 |
| 40 | 0.0007 | 0.000 | 0.050 | 0.0007 | 0.004 |
| 45 | 0.0008 | 0.000 | 0.050 | 0.0008 | 0.008 |
| 50 | 0.0011 | 0.001 | 0.150 | 0.0011 | 0.014 |
| 55 | 0.0017 | 0.001 | 0.200 | 0.0017 | 0.014 |
| **Safety Members – Female** | | | | | |
| 20 | 0.0002 | 0.000 | 0.050 | 0.0002 | 0.000 |
| 25 | 0.0002 | 0.000 | 0.050 | 0.0002 | 0.001 |
| 30 | 0.0004 | 0.000 | 0.050 | 0.0004 | 0.001 |
| 35 | 0.0005 | 0.000 | 0.050 | 0.0005 | 0.002 |
| 40 | 0.0006 | 0.000 | 0.050 | 0.0006 | 0.004 |
| 45 | 0.0007 | 0.000 | 0.050 | 0.0007 | 0.009 |
| 50 | 0.0009 | 0.001 | 0.150 | 0.0009 | 0.014 |
| 55 | 0.0014 | 0.001 | 0.200 | 0.0014 | 0.014 |

[1] Lower rates assumed for members with less than 20 years of service.

## APPENDIX A – MEMBERSHIP INFORMATION

**Salary Increase, Termination and Withdrawal Assumptions**

| Years of Service | Salary Increase: General | Salary Increase: Safety | Withdrawal: General | Withdrawal: Safety | Termination: General[1] | Termination: Safety[2] |
|---|---|---|---|---|---|---|
| 0 | 0.1124 | 0.1330 | 0.105 | 0.054 | 0.070 | 0.036 |
| 1 | 0.1021 | 0.1330 | 0.066 | 0.042 | 0.044 | 0.028 |
| 2 | 0.0712 | 0.0815 | 0.060 | 0.030 | 0.040 | 0.020 |
| 3 | 0.0712 | 0.0815 | 0.047 | 0.030 | 0.031 | 0.020 |
| 4 | 0.0506 | 0.0815 | 0.041 | 0.027 | 0.027 | 0.018 |
| 5 | 0.0506 | 0.0532 | 0.019 | 0.010 | 0.044 | 0.023 |
| 6 | 0.0506 | 0.0429 | 0.018 | 0.009 | 0.042 | 0.021 |
| 7 | 0.0506 | 0.0429 | 0.014 | 0.005 | 0.032 | 0.011 |
| 8 | 0.0429 | 0.0429 | 0.014 | 0.005 | 0.032 | 0.011 |
| 9 | 0.0429 | 0.0429 | 0.011 | 0.005 | 0.026 | 0.011 |
| 10 | 0.0403 | 0.0429 | 0.011 | 0.002 | 0.026 | 0.013 |
| 11 | 0.0403 | 0.0429 | 0.008 | 0.002 | 0.019 | 0.013 |
| 12 | 0.0403 | 0.0429 | 0.008 | 0.002 | 0.019 | 0.013 |
| 13 | 0.0403 | 0.0429 | 0.008 | 0.002 | 0.018 | 0.013 |
| 14 | 0.0403 | 0.0429 | 0.008 | 0.002 | 0.018 | 0.013 |
| 15 | 0.0352 | 0.0429 | 0.003 | 0.001 | 0.023 | 0.006 |
| 16 | 0.0352 | 0.0429 | 0.003 | 0.001 | 0.023 | 0.006 |
| 17 | 0.0352 | 0.0429 | 0.003 | 0.001 | 0.023 | 0.006 |
| 18 | 0.0352 | 0.0429 | 0.003 | 0.001 | 0.023 | 0.006 |
| 19 | 0.0352 | 0.0429 | 0.003 | 0.001 | 0.023 | 0.006 |
| 20 | 0.0352 | 0.0429 | 0.001 | 0.000 | 0.009 | 0.000 |
| 21 | 0.0352 | 0.0429 | 0.001 | 0.000 | 0.009 | 0.000 |
| 22 | 0.0352 | 0.0429 | 0.001 | 0.000 | 0.009 | 0.000 |
| 23 | 0.0352 | 0.0429 | 0.001 | 0.000 | 0.009 | 0.000 |
| 24 | 0.0352 | 0.0429 | 0.001 | 0.000 | 0.009 | 0.000 |
| 25 | 0.0352 | 0.0429 | 0.001 | 0.000 | 0.009 | 0.000 |
| 26 | 0.0352 | 0.0429 | 0.001 | 0.000 | 0.009 | 0.000 |
| 27 | 0.0352 | 0.0429 | 0.001 | 0.000 | 0.009 | 0.000 |
| 28 | 0.0352 | 0.0429 | 0.001 | 0.000 | 0.009 | 0.000 |
| 29 | 0.0352 | 0.0429 | 0.001 | 0.000 | 0.009 | 0.000 |
| 30+ | 0.0352 | 0.0429 | 0.000 | 0.000 | 0.000 | 0.000 |

[1] 75% of vested terminated General Members with less than five years of service, 25% of those with five to 14 years of service, and 30% of those with 15 or more years of service are assumed to be reciprocal.

[2] 67% of vested terminated Safety Members with less than five years of service, and 50% of those with five or more years of service are assumed to be reciprocal.

# APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

The assumptions and methods used in the actuarial valuation as of January 1, 2021 are:

## Actuarial Methods

1. **Actuarial Cost Method**

   The actuarial valuation is prepared using the entry age actuarial cost method (CERL 31453.5). Under the principles of this method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated as a level percentage of the individual's projected compensation between entry age and assumed exit (until maximum retirement age). For members who transferred from outside of SJCERA, entry age (for the actuarial cost calculation only) is based on entry into the system. The normal cost for the Plan is based on the sum of the individual normal costs for each member (Individual Entry Age Method).

   The UAL (or Surplus Funding) is amortized as a percentage of the projected salaries of present and future members of SJCERA. Effective with the January 1, 2015 valuation, the UAL as of January 1, 2014 is amortized over a closed 19-year period (12 years remaining as of January 1, 2021), except for the additional UAL attributable to the extraordinary loss from 2008, which is being amortized over a separate closed period (18 years as of January 1, 2021).

   Any subsequent unexpected change in the Unfunded Actuarial Liability after January 1, 2014 is amortized over 15 years. The UAL payment for the 2020 assumption change is being phased in over a three-year period.

2. **Valuation of Assets**

   The assets are valued using a five-year smoothed method based on the difference between the expected market value and the actual market value of the assets as of the valuation date. The expected market value is the prior year's market value increased with the net increase in the cash flow of funds, all increased with interest during the past fiscal year at the expected investment return rate assumption.

   An asset corridor limit is applied such that the smoothed Market Value of Assets stays within 20% of the Market Value of Assets.

## APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

## Actuarial Assumptions

The recommended assumptions were adopted by the Board at their July 12, 2019 meeting. The demographic assumptions are based on an experience study covering the period from January 1, 2016 through December 31, 2018. The rate of return, CPI, and pay increase assumptions were updated in the 2020 valuation.

1. **Rate of Return**

   Assets are assumed to earn 7.00% net of investment expenses.

2. **Administrative Expenses**

   Administrative expenses are assumed to be $5,035,179 for the next year, to be split between employees and employers based on their share of the overall contributions. Expenses are expected to grow with the cost-of-living (by 2.75% per year.)

3. **Cost-of-Living**

   The cost-of-living as measured by the Consumer Price Index (CPI) will increase at the rate of 2.75% per year. This assumption is also used to project increases in the PEPRA wage cap.

4. **Post Retirement COLA**

   Benefits are assumed to increase after retirement at the rate of 2.6% per year.

5. **Increases in Pay**

   Assumed pay increases for active Members consist of increases due to base salary adjustments plus service-based increase due to longevity and promotion, as shown below:

| Pay Increases | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Years of Service | | | | | | | | | | |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8-9 | 10-14 | 15+ |
| **Base Increase** | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |
| **Longevity & Promotion** | | | | | | | | | | | |
| **General** | 8.00% | 7.00% | 4.00% | 4.00% | 2.00% | 2.00% | 2.00% | 2.00% | 1.25% | 1.00% | 0.50% |
| **Safety** | 10.00% | 10.00% | 5.00% | 5.00% | 5.00% | 2.25% | 1.25% | 1.25% | 1.25% | 1.25% | 1.25% |
| **Total (Compound)** | | | | | | | | | | | |
| **General** | 11.24% | 10.21% | 7.12% | 7.12% | 5.06% | 5.06% | 5.06% | 5.06% | 4.29% | 4.03% | 3.52% |
| **Safety** | 13.30% | 13.30% | 8.15% | 8.15% | 8.15% | 5.32% | 4.29% | 4.29% | 4.29% | 4.29% | 4.29% |

## APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

### 6. Family Composition

Percentage married for all active members who retire, become disabled, or die during active service is shown in the following table. Male members are assumed to be three years older than their spouses, and female members are assumed to be two years younger than their spouses.

| Percentage Married | |
|---|---|
| Gender | Percentage |
| Males | 75% |
| Females | 55% |

### 7. Rates of Termination

Sample rates of termination are shown in the following table. Termination rates do not apply once a member is eligible for retirement.

| Rates of Termination | | |
|---|---|---|
| Years of Service | General | Safety |
| 0 | 17.50% | 9.00% |
| 1 | 11.00% | 7.00% |
| 2 | 10.00% | 5.00% |
| 3 | 7.75% | 5.00% |
| 4 | 6.75% | 4.50% |
| 5 | 6.25% | 3.25% |
| 6 | 6.00% | 3.00% |
| 7 | 4.50% | 1.50% |
| 8 | 4.50% | 1.50% |
| 9 | 3.75% | 1.50% |
| 10 | 3.75% | 1.50% |
| 11-12 | 2.75% | 1.50% |
| 13-14 | 2.50% | 1.50% |
| 15-19 | 2.50% | 0.75% |
| 20-29 | 1.00% | 0.00% |
| 30+ | 0.00% | 0.00% |

### 8. Withdrawal

Rates of withdrawal apply to active Members who terminate their employment and withdraw their member contributions, forfeiting entitlement to future Plan benefits.

## APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

60% of all General Member terminations with less than five years of service, 30% of those with five to 14 years of service, and 10% of those with more than 15 years of service, are assumed to take a refund of contributions.

60% of all Safety Member terminations with less than five years of service, 30% of those with five to nine years of service, and 15% of those with more than 10 years of service, are assumed to take a refund of contributions.

### 9. Vested Termination and Reciprocal Transfers

Rates of vested termination apply to active Members who terminate their employment and leave their member contributions on deposit with the Plan.

40% of all General Member terminations with less than five years of service, 70% of those with five to 14 years of service, and 90% of those with 15 or more years of service, are assumed to leave their contributions on deposit.

40% of all Safety Member terminations with less than five years of service, 70% of those with five to nine years of service, and 85% of those with 10 or more years of service, are assumed to leave their contributions on deposit.

Vested terminated General Members are assumed to begin receiving benefits at age 58; vested terminated Safety Members are assumed to begin receiving benefits at age 50, unless they have outgoing reciprocity, in which case they are assumed to begin receiving benefits at age 53.

75% of vested terminated General Members with less than five years of service, 25% of those with five to 14 years of service, and 30% of those with 15 or more years of service, are assumed to be reciprocal.

67% of vested terminated Safety Members with less than five years of service, and 50% of those with five or more years of service, are assumed to be reciprocal.

Final average pay for General Members who terminate with reciprocity is assumed to increase by 3.52% per year until their assumed retirement date. Final average pay for Safety Members who terminate with reciprocity is assumed to increase by 4.29% per year until their assumed retirement date.

### 10. Rates of Service-Connected Disability

Sample service-connected disability rates of active participants are provided in the table on the next page.

## APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

| Rates of Svc Disability | | | | |
|---|---|---|---|---|
| Age | General Male | General Female | Safety Male | Safety Female |
| 22 | 0.094% | 0.019% | 0.048% | 0.048% |
| 27 | 0.107% | 0.024% | 0.086% | 0.089% |
| 32 | 0.122% | 0.033% | 0.161% | 0.166% |
| 37 | 0.139% | 0.044% | 0.296% | 0.305% |
| 42 | 0.414% | 0.058% | 0.565% | 0.592% |
| 47 | 0.446% | 0.080% | 1.023% | 1.101% |
| 52 | 0.361% | 0.106% | 1.425% | 1.425% |
| 57 | 0.410% | 0.135% | 1.425% | 1.425% |
| 62 | 0.470% | 0.164% | 1.425% | 1.425% |

### 11. Rates of Nonservice-Connected Disability

Sample nonservice-connected disability rates of active participants are provided in the table below.

| Rates of Non-Svc Disability | | | | |
|---|---|---|---|---|
| Age | General Male | General Female | Safety Male | Safety Female |
| 22 | 0.023% | 0.057% | 0.003% | 0.003% |
| 27 | 0.027% | 0.072% | 0.005% | 0.005% |
| 32 | 0.030% | 0.099% | 0.008% | 0.009% |
| 37 | 0.035% | 0.131% | 0.016% | 0.016% |
| 42 | 0.104% | 0.174% | 0.030% | 0.031% |
| 47 | 0.112% | 0.239% | 0.054% | 0.058% |
| 52 | 0.090% | 0.319% | 0.075% | 0.075% |
| 57 | 0.102% | 0.406% | 0.075% | 0.075% |
| 62 | 0.118% | 0.493% | 0.075% | 0.075% |

### 12. Rates of Mortality for Healthy Lives

Mortality rates for General active members are based on the sex distinct Public General 2010 Above-Median Income Mortality Table, with generational mortality improvements projected from 2010 using Projection Scale MP-2018, and a partial credibility adjustment of 1.05 for females and no adjustment for males.

## APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

Mortality rates for Safety active members are based on the sex distinct Public Safety 2010 Mortality Table, with generational mortality improvements projected from 2010 using Projection Scale MP-2018, and a partial credibility adjustment of 0.98 for males and 1.06 for females. 10% of Safety member active deaths are assumed to occur in the line of duty.

Mortality rates for healthy General annuitants and General beneficiaries are based on the sex distinct Public General 2010 Above-Median Income Mortality Table, with generational mortality improvements projected from 2010 using Projection Scale MP-2018, and a partial credibility adjustment of 1.04 for females and no adjustment for males.

Mortality rates for Safety annuitants and Safety beneficiaries are based on the sex distinct Public Safety 2010 Mortality Table, with generational mortality improvements projected from 2010 using Projection Scale MP-2018, and a partial credibility adjustment of 1.02 for males and 1.05 for females.

### 13. Rates of Mortality for Disabled Retirees

Mortality rates for General disabled annuitants are based on the sex distinct Public General Disabled Annuitant 2010 Mortality Table, with generational mortality improvements projected from 2010 using Projection Scale MP-2018, with a partial credibility adjustment of 1.04 for males and 1.07 for females.

Mortality rates for Safety disabled annuitants are based on the sex distinct Public Safety Disabled Annuitant 2010 Mortality Table, with generational mortality improvements projected from 2010 using Projection Scale MP-2018, with a partial credibility adjustment of 1.04 for males and 0.98 for females.

### 14. Mortality Improvement

The mortality assumptions employ a fully generational mortality improvement projection from the base year of the Society of Actuaries' new Public mortality tables (2010) using Scale MP-2018.

### 15. Adjustment for Service Purchases

SJCERA provides Cheiron with the amount of service that active employees are eligible to purchase. We include this service when calculating the employees' benefit eligibility. Half of eligible service purchases, which have not been purchased by the members, are included in the employees' Credited Service, as employees will pay approximately half of the normal cost for these benefits when purchasing this service.

# APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

## 16. Assumptions for Employee Contribution Rates

Mortality rates are the base mortality tables described above, projected using Scale MP-2018 from 2010 to 2040 for General and Safety Members. The projection periods are based on the duration of active liabilities for the respective groups, and the period during which the associated employee contribution rates will be in use. The employee contribution rates are also blended using a male/female weighting of 29%/71% for General Members and 75%/25% for Safety members.

## 17. Rates of Retirement

Rates of retirement are based on age and service according to the following table.

## APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

| Rates of Retirement | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | General Male Years of Service | | | General Female Years of Service | | | Safety Years of Service | |
| Age | 5-9 | 10-29 | 30+ | 5-9 | 10-29 | 30+ | 5-19 | 20+ |
| 45 | 0.00% | 0.00% | 5.00% | 0.00% | 0.00% | 4.50% | 0.00% | 5.00% |
| 46 | 0.00% | 0.00% | 5.00% | 0.00% | 0.00% | 4.50% | 0.00% | 5.00% |
| 47 | 0.00% | 0.00% | 5.00% | 0.00% | 0.00% | 4.50% | 0.00% | 5.00% |
| 48 | 0.00% | 0.00% | 5.00% | 0.00% | 0.00% | 4.50% | 0.00% | 5.00% |
| 49 | 0.00% | 0.00% | 5.00% | 0.00% | 0.00% | 4.50% | 0.00% | 5.00% |
| 50 | 3.00% | 3.00% | 5.00% | 1.00% | 3.50% | 4.50% | 5.00% | 15.00% |
| 51 | 3.00% | 3.00% | 5.00% | 1.00% | 3.50% | 4.50% | 5.00% | 10.00% |
| 52 | 3.00% | 3.00% | 5.00% | 1.00% | 3.50% | 4.50% | 5.00% | 10.00% |
| 53 | 3.00% | 3.00% | 5.00% | 1.00% | 3.50% | 4.50% | 5.00% | 20.00% |
| 54 | 3.00% | 3.00% | 10.00% | 5.75% | 3.50% | 4.50% | 5.00% | 20.00% |
| 55 | 3.00% | 6.50% | 10.00% | 2.50% | 3.50% | 4.50% | 5.00% | 20.00% |
| 56 | 3.00% | 4.00% | 10.00% | 1.50% | 7.00% | 15.00% | 10.00% | 20.00% |
| 57 | 3.00% | 4.00% | 10.00% | 1.50% | 7.00% | 15.00% | 10.00% | 20.00% |
| 58 | 3.00% | 4.00% | 10.00% | 1.50% | 7.00% | 15.00% | 10.00% | 20.00% |
| 59 | 7.00% | 9.00% | 27.50% | 2.00% | 7.00% | 15.00% | 10.00% | 15.00% |
| 60 | 7.00% | 9.00% | 27.50% | 6.25% | 12.50% | 25.00% | 10.00% | 30.00% |
| 61 | 7.00% | 15.00% | 27.50% | 6.25% | 12.50% | 25.00% | 10.00% | 30.00% |
| 62 | 7.00% | 30.00% | 40.00% | 18.50% | 25.00% | 35.00% | 20.00% | 30.00% |
| 63 | 7.00% | 25.00% | 40.00% | 5.00% | 25.00% | 35.00% | 20.00% | 30.00% |
| 64 | 15.00% | 25.00% | 40.00% | 9.00% | 25.00% | 35.00% | 20.00% | 50.00% |
| 65 | 25.00% | 25.00% | 40.00% | 12.50% | 25.00% | 35.00% | 100.00% | 100.00% |
| 66 | 10.00% | 35.00% | 50.00% | 25.00% | 25.00% | 30.00% | 100.00% | 100.00% |
| 67 | 15.00% | 30.00% | 40.00% | 25.00% | 25.00% | 30.00% | 100.00% | 100.00% |
| 68 | 15.00% | 30.00% | 30.00% | 25.00% | 25.00% | 30.00% | 100.00% | 100.00% |
| 69 | 30.00% | 40.00% | 30.00% | 25.00% | 25.00% | 30.00% | 100.00% | 100.00% |
| 70 | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |

**18. Changes in Assumptions**

None.

## APPENDIX C – SUMMARY OF PLAN PROVISIONS

### A. Definitions

**Compensation:** Compensation means the cash remuneration for services paid by the employer. It includes base pay and certain differential, incentive, and special pay allowances defined by the Board of Retirement. Overtime is excluded, with the exception of overtime paid under the Fair Labor Standards Act that is regular and recurring.

For members joining the Plan on and after January 1, 2013 (Tier 2 Members), only pensionable compensation up to the PEPRA compensation limit ($128,059 for 2021) will count for computing Plan benefits and employee contributions and employer contributions for those participating in Social Security. For those not participating in Social Security, the compensation cap is 120% of the PEPRA compensation limit ($153,671 for 2021.) In addition, it is possible that some sources of compensation, such as any payments deemed to be terminal or special pays, may be excluded from benefit and contribution computations for Tier 2 Members.

**Credited Service:** In general, Credited Service is earned for the period during which Member Contributions are paid.

Temporary service for which the Member was not credited, or service for which the Member withdrew his or her Member Contributions, may be purchased by paying or repaying the Member Contributions with interest. Credit for up to 12 months of a medical leave of absence and all military leaves of absence may also be purchased.

Public Service (see below) is part of Credited Service for the computation of benefits only, not for eligibility for benefits or for vesting.

**Final Compensation:** For Tier 1 Members, Final Compensation means the highest average Compensation earned during any 12 consecutive months of the Member's employment.

For Tier 2 Members, highest average Compensation will be based on the highest 36 consecutive months, rather than 12 months.

**General Member:** Any Member who is not a Safety Member is a General Member.

**Public Service:** The Member may elect to purchase Public Service for time spent while employed in another recognized public agency. The public agency must have a reciprocal agreement with the Plan or be one of several specified municipalities, counties, special districts, or State or Federal agencies.

## APPENDIX C – SUMMARY OF PLAN PROVISIONS

Public Service cannot be purchased if it is used for eligibility for another pension.

The cost to purchase Public Service is twice the Member Contributions and interest applicable for the period of time purchased. Public Service is used to compute benefits but does not count toward eligibility for benefits or vesting.

Safety Member: Any sworn Member engaged in law enforcement, probation, or fire suppression is a Safety Member.

### B. Membership

Eligibility: All full-time, permanent employees of San Joaquin County and other participating special districts become Members on their date of appointment. Membership is mandatory; only elected officials and members who are age 60 or older at the time of employment in a position requiring membership in SJCERA may choose not to participate.

A Tier 2 Member is any Member joining the Plan for the first time on or after January 1, 2013. Employees who transfer from and are eligible for reciprocity with another public employer will not be Tier 2 Members if their service in the reciprocal system was under a previous tier. Employees who were Members of SJCERA prior to January 1, 2013 and experienced a break in service of more than six months and then were reemployed by a *different* SJCERA-participating employer on or after January 1, 2013 will be considered Tier 2 Members for all subsequent service.

Member Contributions: Each Member contributes a percentage of Compensation to the Plan through payroll deduction. For Tier 1 members, the percentage contributed depends on the Member's age upon joining the Plan. Representative rates are shown in Table 1 on the next page.

Tier 1 members covered by Social Security have their contributions reduced by one-third on the first $161.54 of biweekly Compensation. General Members who joined the Plan prior to March 7, 1973 and who have earned 30 years of Credited Service do not contribute; Safety Members do not contribute after earning 30 years of Credited Service.

## APPENDIX C – SUMMARY OF PLAN PROVISIONS

**Table 1: Tier 1 Member Contribution Rates (Basic Rates)**

| | General Member Rate | | Safety Member Rate | |
|---|---|---|---|---|
| Entry Age | 1st $350/month | Over $350 | 1st $350/month | Over $350 |
| 20 | 1.97% | 2.95% | 2.97% | 4.45% |
| 25 | 2.18% | 3.27% | 3.20% | 4.80% |
| 30 | 2.41% | 3.62% | 3.45% | 5.18% |
| 35 | 2.68% | 4.02% | 3.74% | 5.61% |
| 40 | 2.97% | 4.46% | 4.09% | 6.14% |
| 45 | 3.26% | 4.89% | 4.48% | 6.72% |
| 50 | 3.54% | 5.31% | 4.27% | 6.41% |

*Rates include the employee share of the administrative expenses.*

Some Tier 1 members also contribute half of the normal cost associated with the post-retirement COLA benefits, also based on entry age. Many bargaining groups have also agreed to have their Tier 1 members pay additional basic rate contributions (14% of the current basic rates for General members, 33% for Safety). The complete rate tables for all groups are in the Appendix G.

Tier 2 Members contribute half of the normal cost of the Plan. Contributions for these Members are based on the Normal Cost associated with their benefits; General and Safety members pay different rates.

Tier 2 Members pay a single contribution rate, not a rate based on entry age. All Tier 2 Members continue contributing after earning 30 years of service. These rates are updated annually, to reflect changes in the Tier 2 demographics, as well as any changes in assumptions (such as the discount rate change).

**Table 2: Tier 2 Member Contribution Rates**

| General Member Rate | Safety Member Rate |
|---|---|
| 9.99% | 15.42% |

*Rates include the employee share of the administrative expenses.*

Interest is credited semiannually to each Member's accumulated contributions, based on the previous year's expected rate of return on assets. The crediting rate for 2021 is 3.4408%, for an effective annual rate of 7.00%.

## APPENDIX C – SUMMARY OF PLAN PROVISIONS

### C. Service Retirement

Eligibility: Tier 1 General Members are eligible to retire at age 50 if they have earned five years of Credited Service and have passed the tenth anniversary of their membership in the Plan. Alternatively, General Members are eligible to retire at any age after having earned 30 years of Credited Service, or upon reaching age 70 with no service requirement.

Tier 1 Safety Members are eligible to retire at age 50 if they have earned five years of Credited Service and have passed the tenth anniversary of their membership in the Plan. Alternatively, Safety Members are eligible to retire at any age after having earned 20 years of Credited Service.

Tier 2 General Members are eligible to retire upon attaining age 52 and completing five or more years of service. Tier 2 Safety Members are eligible to retire upon attaining age 50 and completing five or more years of service. Tier 2 Members are eligible to retire, regardless of service, after attaining age 70.

Benefit Amount: The Service Retirement Benefit payable to Tier 1 General Members is equal to the percentage in Table 3 on the next page multiplied by the Member's Final Compensation. The Service Retirement Benefit payable to Tier 1 Safety Members is equal to the percentage in the upcoming Table 4 multiplied by the Member's Final Compensation. The percentage of Final Compensation may not exceed 100%. For those Tier 1 members integrated with Social Security, Retirement Benefits based on the first $350 of monthly Final Average Compensation are reduced by one-third.

## APPENDIX C – SUMMARY OF PLAN PROVISIONS

### Table 3: Tier 1 General Members (CERL Section 31676.14)

| Service | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | | | | | 14.75 | 15.67 | 16.67 | 17.41 | 18.41 | 19.48 | 20.61 | 21.82 | 22.68 | 23.54 | 24.40 | 25.26 | 26.11 | 26.11 | 26.11 | 26.11 |
| 11 | | | | | 16.23 | 17.23 | 18.33 | 19.15 | 20.25 | 21.42 | 22.67 | 24.00 | 24.95 | 25.89 | 26.84 | 27.78 | 28.72 | 28.72 | 28.72 | 28.72 |
| 12 | | | | | 17.70 | 18.80 | 20.00 | 20.89 | 22.10 | 23.37 | 24.73 | 26.19 | 27.22 | 28.25 | 29.28 | 30.31 | 31.34 | 31.34 | 31.34 | 31.34 |
| 13 | | | | | 19.18 | 20.36 | 21.67 | 22.64 | 23.94 | 25.32 | 26.79 | 28.37 | 29.48 | 30.60 | 31.72 | 32.83 | 33.95 | 33.95 | 33.95 | 33.95 |
| 14 | | | | | 20.65 | 21.93 | 23.33 | 24.38 | 25.78 | 27.27 | 28.85 | 30.55 | 31.75 | 32.95 | 34.16 | 35.36 | 36.56 | 36.56 | 36.56 | 36.56 |
| 15 | | | | | 22.13 | 23.50 | 25.00 | 26.12 | 27.62 | 29.22 | 30.91 | 32.73 | 34.02 | 35.31 | 36.60 | 37.88 | 39.17 | 39.17 | 39.17 | 39.17 |
| 16 | | | | | 23.60 | 25.06 | 26.67 | 27.86 | 29.46 | 31.16 | 32.97 | 34.92 | 36.29 | 37.66 | 39.04 | 40.41 | 41.78 | 41.78 | 41.78 | 41.78 |
| 17 | | | | | 25.08 | 26.63 | 28.33 | 29.60 | 31.30 | 33.11 | 35.03 | 37.10 | 38.56 | 40.01 | 41.47 | 42.93 | 44.39 | 44.39 | 44.39 | 44.39 |
| 18 | | | | | 26.55 | 28.20 | 30.00 | 31.34 | 33.14 | 35.06 | 37.09 | 39.28 | 40.82 | 42.37 | 43.91 | 45.46 | 47.00 | 47.00 | 47.00 | 47.00 |
| 19 | | | | | 28.03 | 29.76 | 31.67 | 33.08 | 34.98 | 37.01 | 39.16 | 41.46 | 43.09 | 44.72 | 46.35 | 47.98 | 49.61 | 49.61 | 49.61 | 49.61 |
| 20 | | | | | 29.50 | 31.33 | 33.33 | 34.82 | 36.83 | 38.95 | 41.22 | 43.64 | 45.36 | 47.08 | 48.79 | 50.51 | 52.23 | 52.23 | 52.23 | 52.23 |
| 21 | | | | | 30.98 | 32.90 | 35.00 | 36.57 | 38.67 | 40.90 | 43.28 | 45.83 | 47.63 | 49.43 | 51.23 | 53.04 | 54.84 | 54.84 | 54.84 | 54.84 |
| 22 | | | | | 32.45 | 34.46 | 36.67 | 38.31 | 40.51 | 42.85 | 45.34 | 48.01 | 49.90 | 51.78 | 53.67 | 55.56 | 57.45 | 57.45 | 57.45 | 57.45 |
| 23 | | | | | 33.93 | 36.03 | 38.33 | 40.05 | 42.35 | 44.80 | 47.40 | 50.19 | 52.16 | 54.14 | 56.11 | 58.09 | 60.06 | 60.06 | 60.06 | 60.06 |
| 24 | | | | | 35.40 | 37.60 | 40.00 | 41.79 | 44.19 | 46.74 | 49.46 | 52.37 | 54.43 | 56.49 | 58.55 | 60.61 | 62.67 | 62.67 | 62.67 | 62.67 |
| 25 | | | | | 36.88 | 39.16 | 41.67 | 43.53 | 46.03 | 48.69 | 51.52 | 54.56 | 56.70 | 58.85 | 60.99 | 63.14 | 65.28 | 65.28 | 65.28 | 65.28 |
| 26 | | | | | 38.35 | 40.73 | 43.33 | 45.27 | 47.87 | 50.64 | 53.58 | 56.74 | 58.97 | 61.20 | 63.43 | 65.66 | 67.89 | 67.89 | 67.89 | 67.89 |
| 27 | | | | | 39.83 | 42.30 | 45.00 | 47.01 | 49.72 | 52.59 | 55.64 | 58.92 | 61.24 | 63.55 | 65.87 | 68.19 | 70.51 | 70.51 | 70.51 | 70.51 |
| 28 | | | | | 41.30 | 43.86 | 46.67 | 48.75 | 51.56 | 54.54 | 57.70 | 61.10 | 63.50 | 65.91 | 68.31 | 70.71 | 73.12 | 73.12 | 73.12 | 73.12 |
| 29 | | | | | 42.78 | 45.43 | 48.33 | 50.49 | 53.40 | 56.48 | 59.76 | 63.28 | 65.77 | 68.26 | 70.75 | 73.24 | 75.73 | 75.73 | 75.73 | 75.73 |
| 30 | 35.28 | 37.27 | 39.41 | 41.73 | 44.25 | 47.00 | 50.00 | 52.24 | 55.24 | 58.43 | 61.82 | 65.47 | 68.04 | 70.61 | 73.19 | 75.77 | 78.34 | 78.34 | 78.34 | 78.34 |
| 31 | | 38.51 | 40.72 | 43.12 | 45.73 | 48.56 | 51.67 | 53.98 | 57.08 | 60.38 | 63.88 | 67.65 | 70.31 | 72.97 | 75.63 | 78.29 | 80.95 | 80.95 | 80.95 | 80.95 |
| 32 | | | 42.04 | 44.51 | 47.20 | 50.13 | 53.33 | 55.72 | 58.92 | 62.33 | 65.95 | 69.83 | 72.58 | 75.32 | 78.07 | 80.82 | 83.56 | 83.56 | 83.56 | 83.56 |
| 33 | | | | 45.90 | 48.68 | 51.69 | 55.00 | 57.46 | 60.76 | 64.27 | 68.01 | 72.01 | 74.84 | 77.68 | 80.51 | 83.34 | 86.17 | 86.17 | 86.17 | 86.17 |
| 34 | | | | | 50.15 | 53.26 | 56.67 | 59.20 | 62.60 | 66.22 | 70.07 | 74.19 | 77.11 | 80.03 | 82.95 | 85.87 | 88.78 | 88.78 | 88.78 | 88.78 |
| 35 | | | | | | 54.83 | 58.33 | 60.94 | 64.45 | 68.17 | 72.13 | 76.38 | 79.38 | 82.38 | 85.39 | 88.39 | 91.40 | 91.40 | 91.40 | 91.40 |
| 36 | | | | | | | 60.00 | 62.68 | 66.29 | 70.12 | 74.19 | 78.56 | 81.65 | 84.74 | 87.83 | 90.92 | 94.01 | 94.01 | 94.01 | 94.01 |
| 37 | | | | | | | | 64.42 | 68.13 | 72.06 | 76.25 | 80.74 | 83.92 | 87.09 | 90.27 | 93.44 | 96.62 | 96.62 | 96.62 | 96.62 |
| 38 | | | | | | | | | 69.97 | 74.01 | 78.31 | 82.92 | 86.18 | 89.44 | 92.71 | 95.97 | 99.23 | 99.23 | 99.23 | 99.23 |
| 39 | | | | | | | | | | 75.96 | 80.37 | 85.11 | 88.45 | 91.80 | 95.15 | 98.49 | 100 | 100 | 100 | 100 |
| 40 | | | | | | | | | | | 82.43 | 87.29 | 90.72 | 94.15 | 97.59 | 100 | | | | |
| 41 | | | | | | | | | | | | 89.47 | 92.99 | 96.51 | 100 | | | | | |
| 42 | | | | | | | | | | | | | 95.26 | 98.86 | | | | | | |
| 43 | | | | | | | | | | | | | | 100 | | | | | | |

## APPENDIX C – SUMMARY OF PLAN PROVISIONS

### Table 4: Tier 1 Safety Members (CERL Section 31664.1)

| Service | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | | | | | | | | | | 30.00 | 30.00 | 30.00 | 30.00 | 30.00 | 30.00 |
| 11 | | | | | | | | | | 33.00 | 33.00 | 33.00 | 33.00 | 33.00 | 33.00 |
| 12 | | | | | | | | | | 36.00 | 36.00 | 36.00 | 36.00 | 36.00 | 36.00 |
| 13 | | | | | | | | | | 39.00 | 39.00 | 39.00 | 39.00 | 39.00 | 39.00 |
| 14 | | | | | | | | | | 42.00 | 42.00 | 42.00 | 42.00 | 42.00 | 42.00 |
| 15 | | | | | | | | | | 45.00 | 45.00 | 45.00 | 45.00 | 45.00 | 45.00 |
| 16 | | | | | | | | | | 48.00 | 48.00 | 48.00 | 48.00 | 48.00 | 48.00 |
| 17 | | | | | | | | | | 51.00 | 51.00 | 51.00 | 51.00 | 51.00 | 51.00 |
| 18 | | | | | | | | | | 54.00 | 54.00 | 54.00 | 54.00 | 54.00 | 54.00 |
| 19 | | | | | | | | | | 57.00 | 57.00 | 57.00 | 57.00 | 57.00 | 57.00 |
| 20 | 37.55 | 39.75 | 42.02 | 44.38 | 46.83 | 49.36 | 52.07 | 54.51 | 57.13 | 60.00 | 60.00 | 60.00 | 60.00 | 60.00 | 60.00 |
| 21 | | 41.74 | 44.13 | 46.6 | 49.17 | 51.82 | 54.67 | 57.24 | 59.99 | 63.00 | 63.00 | 63.00 | 63.00 | 63.00 | 63.00 |
| 22 | | | 46.23 | 48.82 | 51.51 | 54.29 | 57.27 | 59.96 | 62.85 | 66.00 | 66.00 | 66.00 | 66.00 | 66.00 | 66.00 |
| 23 | | | | 51.04 | 53.85 | 56.76 | 59.88 | 62.69 | 65.7 | 69.00 | 69.00 | 69.00 | 69.00 | 69.00 | 69.00 |
| 24 | | | | | 56.2 | 59.23 | 62.48 | 65.41 | 68.56 | 72.00 | 72.00 | 72.00 | 72.00 | 72.00 | 72.00 |
| 25 | | | | | | 61.7 | 65.09 | 68.14 | 71.42 | 75.00 | 75.00 | 75.00 | 75.00 | 75.00 | 75.00 |
| 26 | | | | | | | 67.69 | 70.86 | 74.27 | 78.00 | 78.00 | 78.00 | 78.00 | 78.00 | 78.00 |
| 27 | | | | | | | | 73.59 | 77.13 | 81.00 | 81.00 | 81.00 | 81.00 | 81.00 | 81.00 |
| 28 | | | | | | | | | 79.98 | 84.00 | 84.00 | 84.00 | 84.00 | 84.00 | 84.00 |
| 29 | | | | | | | | | | 87.00 | 87.00 | 87.00 | 87.00 | 87.00 | 87.00 |
| 30 | | | | | | | | | | 90.00 | 90.00 | 90.00 | 90.00 | 90.00 | 90.00 |
| 31 | | | | | | | | | | 93.00 | 93.00 | 93.00 | 93.00 | 93.00 | 93.00 |
| 32 | | | | | | | | | | 96.00 | 96.00 | 96.00 | 96.00 | 96.00 | 96.00 |
| 33 | | | | | | | | | | 99.00 | 99.00 | 99.00 | 99.00 | 99.00 | 99.00 |
| 34 | | | | | | | | | | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| 35 | | | | | | | | | | | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| 36 | | | | | | | | | | | | 100.00 | 100.00 | 100.00 | 100.00 |
| 37 | | | | | | | | | | | | | 100.00 | 100.00 | 100.00 |
| 38 | | | | | | | | | | | | | | 100.00 | 100.00 |
| 39 | | | | | | | | | | | | | | | 100.00 |

## APPENDIX C – SUMMARY OF PLAN PROVISIONS

**Table 5: Tier I Social Security Adjustment**

| Age at Retirement | General Member Reduction | Safety Member Reduction |
|---|---|---|
| 46 | $1.372 | $2.879 |
| 47 | $1.449 | $3.037 |
| 48 | $1.533 | $3.180 |
| 49 | $1.623 | $3.333 |
| 50 | $1.721 | $3.500 |
| 51 | $1.828 | $3.500 |
| 52 | $1.944 | $3.500 |
| 53 | $2.031 | $3.500 |
| 54 | $2.148 | $3.500 |
| 55 | $2.272 | $3.500 |
| 56 | $2.404 | $3.500 |
| 57 | $2.546 | $3.500 |
| 58 | $2.646 | $3.500 |
| 59 | $2.746 | $3.500 |
| 60 | $2.846 | $3.500 |
| 61 | $2.946 | $3.500 |
| 62 | $3.046 | $3.500 |
| 63 | $3.046 | $3.500 |
| 64 | $3.046 | $3.500 |
| 65 | $3.046 | $3.500 |

For Tier 2 General Members, the benefit multiplier is 1% at age 52, increasing by 0.1% for each year of age to 2.5% at 67. For Tier 2 Safety Members, the benefit multiplier is 2% at age 50, increasing by 0.1% for each year of age to 2.7% at age 57. In between exact ages, the multiplier increases by 0.025% for each quarter year increase in age.

Form of Benefit: The Service Retirement Benefit will be paid monthly beginning at retirement and for the life of the Member. If the member selects the unmodified benefit form, in the event of the Member's death, 60% of the benefit will continue for the life of the Member's spouse, or to the age of majority of dependent minor children if there is no spouse. In the event there is no surviving spouse or minor children, any unpaid remainder of the Member's accumulated contributions will be paid to the Member's designated beneficiary.

## APPENDIX C – SUMMARY OF PLAN PROVISIONS

Actuarially equivalent optional benefit forms are also available.

Annually on April 1, benefits are adjusted to reflect changes in the CPI for the San Francisco Bay Area. Annual adjustments may not exceed 3%, but changes in CPI in excess of 3% are "banked" and used for future adjustments when changes in CPI are less than 3%.

In addition, ad hoc cost-of-living adjustments have been granted in the past and may be granted in the future.

A lump sum benefit of $5,000 will be payable upon the death of a retired member.

### D. Service-Connected Disability

Eligibility: Members are eligible for Service-Connected Disability Retirement benefits at any age if they are permanently disabled as a result of injuries or illness sustained in the line of duty.

Benefit Amount: The Service-Connected Disability Retirement Benefit payable to Members is equal to the greater of 50% of their Final Compensation or – if the Member is eligible at disability for a Service Retirement Benefit – the Service Retirement Benefit accrued on the date of disability.

Members who return to work at a different position with lower pay may receive a Supplemental Disability Allowance that, when added to their new pay, may bring the Member's total income up to the current pay for his or her position at the time of disability. The Supplemental Disability Allowance may not exceed the Service-Connected Disability Retirement benefit.

Form of Benefit: The Service-Connected Disability Retirement Benefit will be paid monthly beginning at the effective date of disability retirement and for the life of the Member; in the event of the Member's death, 100% of the benefit will continue for the life of the Member's spouse, or to the age of majority of dependent minor children if there is no spouse. In the event there is no surviving spouse or minor children, any unpaid remainder of the Member's accumulated contributions will be paid to the Member's designated beneficiary.

Actuarially equivalent optional benefit forms are also available.

Annually on April 1, benefits are adjusted to reflect changes in the CPI for the San Francisco Bay Area. Annual adjustments may not exceed 3%, but changes in CPI in excess of 3% are "banked" and used for future adjustments when changes in CPI are less than 3%.

In addition, ad hoc cost-of-living adjustments have been granted in the past and may be granted in the future.

A lump sum benefit of $5,000 will be payable upon the death of a retired member.

**E. Nonservice-Connected Disability**

Eligibility: Members are eligible for Nonservice-Connected Disability Retirement benefits if they are permanently disabled at any age after earning five years of Credited Service or after becoming eligible for a deferred vested benefit.

Benefit Amount: The Nonservice-Connected Disability Retirement Benefit payable to General Members is equal to the greatest of:

- 1.5% of Final Compensation at disability multiplied by years of Credited Service at disability;
- 1.5% of Final Compensation at disability multiplied by years of Credited Service projected to age 65, but not to exceed one-third of Final Compensation; or
- If the Member is eligible at disability for a Service Retirement Benefit, the Service Retirement Benefit accrued on the date of disability.

The Nonservice-Connected Disability Retirement Benefit payable to Safety Members is equal to the greatest of:

- 1.8% of Final Compensation at disability multiplied by years of Credited Service at disability;
- 1.8% of Final Compensation at disability multiplied by years of Credited Service projected to age 55, but not to exceed one-third of Final Compensation; or
- If the Member is eligible at disability for a Service Retirement Benefit, the Service Retirement Benefit accrued on the date of disability.

Members who return to work at a different position with lower pay may receive a Supplemental Disability Allowance that, when added to their new pay, may bring the Member's total income up to the current pay for his or her position at the time of disability. The Supplemental Disability

## APPENDIX C – SUMMARY OF PLAN PROVISIONS

Allowance may not exceed the Nonservice-Connected Disability Retirement benefit.

Form of Benefit: The Nonservice-Connected Disability Retirement Benefit will be paid monthly beginning at the effective date of disability retirement, and for the life of the Member; in the event of the Member's death, 60% of the benefit will continue for the life of the Member's spouse or to the age of majority of dependent minor children if there is no spouse. In the event there is no surviving spouse or minor children, any unpaid remainder of the Member's accumulated contributions will be paid to the Member's designated beneficiary.

Actuarially equivalent optional benefit forms are also available.

Annually on April 1, benefits are adjusted to reflect changes in the CPI for the San Francisco Bay Area. Annual adjustments may not exceed 3%, but changes in CPI in excess of 3% are "banked" and used for future adjustments when changes in CPI are less than 3%.

In addition, ad hoc cost-of-living adjustments have been granted in the past and may be granted in the future.

A lump sum benefit of $5,000 will be payable upon the death of a retired member.

### F. Service-Connected Death

Eligibility: A Member's survivors are eligible to receive Service-Connected Death benefits if the Member's death resulted from injury or illness sustained in connection with the Member's duties.

Benefit Amount: The Service-Connected Death benefit payable to a surviving spouse or minor children will be 50% of the Member's Final Compensation.

In the event the Member's death was caused by external violence or physical force, an additional benefit of 25% of the above basic benefit will be paid for the first minor child, 15% for the second, and 10% for the third.

Furthermore, for Safety Members only, there will be an additional lump sum benefit of 12 months of pay at the time of death.

Form of Benefit: The Service-Connected Death Benefit will be paid monthly beginning at the Member's death and for the life of the surviving spouse or to the age of majority of dependent minor children if there is no spouse.

## APPENDIX C – SUMMARY OF PLAN PROVISIONS

Annually on April 1, benefits are adjusted to reflect changes in the CPI for the San Francisco Bay Area. Annual adjustments may not exceed 3%, but changes in CPI in excess of 3% are "banked" and used for future adjustments when changes in CPI are less than 3%.

In addition, ad hoc cost-of-living adjustments have been granted in the past and may be granted in the future.

### G. Nonservice-Connected Death

Eligibility: A Member's survivors are eligible to receive Nonservice-Connected Death benefits if the Member's death arose from causes unrelated to the Member's duties.

Benefit Amount: In the event the Member had earned fewer than five years of Credited Service and has no or insufficient reciprocity service from another system, the Nonservice-Connected Death benefit will be a refund of the Member's accumulated contributions with interest plus a payment of one month of Final Compensation for each year of Credited Service, not to exceed six months.

In the event the Member had earned five or more years of Credited Service, the Nonservice-Connected Death benefit payable to a surviving spouse or minor children will be 60% of the amount the Member would have received as a Nonservice-Connected Disability Retirement Benefit on the date of death.

Form of Benefit: For Members who had earned fewer than five years of Credited Service at death, the benefit will be paid as a lump sum.

For Members with five or more years of Credited Service, the Nonservice-Connected Death Benefit will be paid monthly beginning at the Member's death and for the life of the surviving spouse or to the age of majority of dependent minor children if there is no spouse.

Annually on April 1, benefits are adjusted to reflect changes in the CPI for the San Francisco Bay Area. Annual adjustments may not exceed 3%, but changes in CPI in excess of 3% are "banked" and used for future adjustments when changes in CPI are less than 3%.

In addition, ad hoc cost-of-living adjustments have been granted in the past and may be granted in the future.

## APPENDIX C – SUMMARY OF PLAN PROVISIONS

### H. Withdrawal Benefit

| | |
|---|---|
| Eligibility: | A Member is eligible for a Withdrawal Benefit upon termination of employment. |
| Benefit Amount: | The Withdrawal Benefit is a refund of the Member's accumulated contributions with interest. Upon receipt of the Withdrawal Benefit, the Member forfeits all Credited Service. |
| Form of Benefit: | The Withdrawal Benefit is paid in a lump sum upon election by the Member. |

### I. Deferred Vested Benefit

| | |
|---|---|
| Eligibility: | A Member is eligible for a Deferred Vested Benefit upon termination of employment after earning five years of Credited Service, including reciprocity service from another system. The Member must leave his or her Member Contributions with interest on deposit with the Plan. |
| Benefit Amount: | The Deferred Vested Benefit is computed in the same manner as the Service Retirement Benefit, but it is based on Credited Service and Final Compensation on the date of termination.<br><br>For Tier 1 Members, Tables 2 and 3 are extended for service under 10 years using benefit multipliers of one-sixtieth per year of Credited Service at age 52 (General) or 3% per year of Credited Service at age 50 (Safety), with adjustments for earlier or later retirement under Sections 31676.14 and 31664.1, respectively, of the County Employees Retirement Law of 1937. |
| Form of Benefit: | The Deferred Vested Benefit will be paid monthly beginning at retirement and for the life of the Member; in the event of the Member's death, 60% of the benefit will continue for the life of the Member's spouse or to the age of majority of dependent minor children if there is no spouse. In the event there is no surviving spouse or minor children, any unpaid remainder of the Member's accumulated contributions will be paid to the Member's designated beneficiary.<br><br>Actuarially equivalent optional benefit forms are also available.<br><br>Annually on April 1, benefits are adjusted to reflect changes in the CPI for the San Francisco Bay Area. Annual adjustments may not exceed 3%, but changes in CPI in excess of 3% are "banked" and used for future adjustments when changes in CPI are less than 3%. |

## APPENDIX C – SUMMARY OF PLAN PROVISIONS

In addition, ad hoc cost-of-living adjustments have been granted in the past and may be granted in the future.

A lump sum benefit of $5,000 will be payable upon the death of a retired member.

### J. Reciprocal Benefit

Eligibility: A Member is eligible for a Reciprocal Benefit upon termination of employment and entry, within a specified period of time, into another retirement system recognized as a reciprocal system by the Plan. In addition, the Member must leave his or her Member Contributions with interest on deposit with the Plan.

Benefit Amount: The Reciprocal Benefit is computed in the same manner as the Service Retirement Benefit, but it is based on Credited Service on the date of termination and Final Compensation on the date of retirement; Final Compensation is based on the highest of the Compensation earned under this Plan or the reciprocal plan.

Form of Benefit: The Reciprocal Benefit will be paid monthly beginning at retirement and for the life of the Member; in the event of the Member's death, 60% of the benefit will continue for the life of the Member's spouse or to the age of majority of dependent minor children if there is no spouse. In the event there is no surviving spouse or minor children, any unpaid remainder of the Member's accumulated contributions will be paid to the Member's designated beneficiary.

Actuarially equivalent optional benefit forms are also available.

Annually on April 1, benefits are adjusted to reflect changes in the CPI for the San Francisco Bay Area. Annual adjustments may not exceed 3%, but changes in CPI in excess of 3% are "banked" and used for future adjustments when changes in CPI are less than 3%.

A lump sum benefit may be payable upon the death of a retired Member by the last system under which the Member's service was covered.

Subsequent to the valuation date, the Board approved the creation of Tier 2B for new members hired after January 1, 2022, but the implementation of this Tier does not have any impact on the current valuation results. The only difference for this Tier is in the definition of pensionable compensation, which only includes base pay. There have been no other changes in plan provisions since the prior valuation.

## APPENDIX D – 401(H) REPAYMENT SCHEDULE

As of January 1, 2014, a separate amortization layer was established for the repayment of funds originally transferred to a retiree health reserve. This schedule was prepared in compliance with an approved Voluntary Correction Program that SJCERA submitted to the IRS. The original balance of the amortization layer ($48.0 million) is being amortized using the same methodology and assumptions as the UAL – as a level percentage of payroll over a 19-year period – after an initial payment of $19.8 million.

| Date | Outstanding Balance | Years Remaining | End of Year Payment |
|---|---|---|---|
| 1/1/2017 | $27,547,546 | 16 | $2,460,275 |
| 1/1/2018 | $27,125,789 | 15 | $2,512,141 |
| 1/1/2019 | $26,580,267 | 14 | $2,591,274 |
| 1/1/2020 | $25,916,063 | 13 | $2,653,902 |
| 1/1/2021 | $25,076,285 | 12 | $2,733,519 |
| 1/1/2022 | $24,098,107 | 11 | $2,815,524 |
| 1/1/2023 | $22,969,449 | 10 | $2,899,990 |
| 1/1/2024 | $21,677,321 | 9 | $2,986,990 |
| 1/1/2025 | $20,207,743 | 8 | $3,076,600 |
| 1/1/2026 | $18,545,686 | 7 | $3,168,898 |
| 1/1/2027 | $16,674,986 | 6 | $3,263,965 |
| 1/1/2028 | $14,578,270 | 5 | $3,361,883 |
| 1/1/2029 | $12,236,866 | 4 | $3,462,740 |
| 1/1/2030 | $9,630,706 | 3 | $3,566,622 |
| 1/1/2031 | $6,738,234 | 2 | $3,673,621 |
| 1/1/2032 | $3,536,289 | 1 | $3,783,829 |
| 1/1/2033 | $0 | 0 | $0 |

## APPENDIX E – GLOSSARY

1. **Actuarial Assumptions**

   Assumptions as to the occurrence of future events affecting pension costs such as mortality, withdrawal, disability, retirement, changes in compensation, and rates of investment return.

2. **Actuarial Cost Method**

   A procedure for determining the actuarial present value of pension plan benefits and expenses and for developing an allocation of such value to each year of service, usually in the form of a normal cost and an Actuarial Liability.

3. **Actuarial Gain (Loss)**

   The difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

4. **Actuarial Liability**

   The portion of the actuarial present value of projected benefits that will not be paid by future normal costs. It represents the value of the past normal costs with interest to the valuation date.

5. **Actuarial Present Value (Present Value)**

   The value as of a given date of a future amount or series of payments. The actuarial present value discounts the payments to the given date at the assumed investment return and includes the probability of the payment being made.

6. **Actuarial Valuation**

   The determination, as of a specified date, of the normal cost, Actuarial Liability, Actuarial Value of Assets, and related actuarial present values for a pension plan.

7. **Actuarial Value of Assets**

   The value of cash, investments, and other property belonging to a pension plan as used by the actuary for the purpose of an actuarial valuation. The purpose of an Actuarial Value of Assets is to smooth out fluctuations in market values.

8. **Actuarially Equivalent**

   Of equal actuarial present value, determined as of a given date, with each value based on the same set of actuarial assumptions.

## APPENDIX E – GLOSSARY

### 9. Amortization Payment

The portion of the pension plan contribution that is designed to pay interest and principal on the Unfunded Actuarial Liability in order to pay for that liability in a given number of years.

### 10. Entry Age Normal Actuarial Cost Method

A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages.

### 11. Funded Ratio

The ratio of the Actuarial Value of Assets to the Actuarial Liabilities. The funded ratio shown in this report is not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations, in the case of a plan termination or other similar action. However, it is an appropriate measure for assessing the need for or the amount of future contributions.

### 12. Inactive Funded Ratio

The ratio of the Inactive Actuarial Liabilities to the total Actuarial Liabilities. The inactive funded ratio is a measure that shows the minimum funded status needed to pay benefits for all inactive members.

### 13. Normal Cost

That portion of the actuarial present value of pension plan benefits and expenses, which is allocated to a valuation year by the actuarial cost method.

### 14. Projected Benefits

Those pension plan benefit amounts which are expected to be paid in the future under a particular set of actuarial assumptions, taking into account such items as increases in future compensation and service credits.

### 15. Unfunded Actuarial Liability

The excess of the Actuarial Liability over the Actuarial Value of Assets.

## APPENDIX F – GENERAL AND SAFETY EMPLOYER CONTRIBUTION RATES

### Tier 1: Contribution Rates for General and Safety (no COLA Cost-Sharing)

Separate rates for General and Safety members are shown below. These rates are applicable for employment groups that have not implemented equal sharing of the contributions required for post-retirement cost-of-living adjustments (COLA) in accordance with Government Code Section 31873.

| | As of January 1, 2020 | | | | As of January 1, 2021 | | |
|---|---|---|---|---|---|---|---|
| | General | Safety | Total | | General | Safety | Total |
| **Employer Normal Cost** | | | | **Employer Normal Cost** | | | |
| Basic | 13.85% | 22.31% | 15.47% | Basic | 13.82% | 22.23% | 15.46% |
| COL | 6.00% | 10.56% | 6.87% | COL | 6.00% | 10.54% | 6.89% |
| Total | 19.85% | 32.87% | 22.34% | Total | 19.82% | 32.77% | 22.35% |
| **UAL Amortization Cost** | | | | **UAL Amortization Cost** | | | |
| Basic | 20.85% | 44.44% | 25.30% | Basic | 20.94% | 45.40% | 25.65% |
| COL | 8.80% | 16.84% | 10.32% | COL | 9.66% | 18.33% | 11.33% |
| Total | 29.65% | 61.28% | 35.62% | Total | 30.60% | 63.73% | 36.98% |
| **Total Cost** | | | | **Total Cost** | | | |
| Basic | 34.70% | 66.75% | 40.77% | Basic | 34.76% | 67.63% | 41.11% |
| COL | 14.80% | 27.40% | 17.19% | COL | 15.66% | 28.87% | 18.22% |
| Total | 49.50% | 94.15% | 57.96% | Total | 50.42% | 96.50% | 59.33% |

*Rates include the employer share of the administrative expenses.*

## APPENDIX F – GENERAL AND SAFETY EMPLOYER CONTRIBUTION RATES

**Tier 1: Contribution Rates for General and Safety (Employer Cost with additional 14% / 33% Normal Rates by members without COLA Cost-sharing)**

Separate rates for General and Safety members contributing an additional 14% / 33% of Normal Rates are shown below.

| As of January 1, 2020 | | | | As of January 1, 2021 | | | |
|---|---|---|---|---|---|---|---|
| | General | Safety | Total | | General | Safety | Total |
| **Employer Normal Cost** | | | | **Employer Normal Cost** | | | |
| Basic | 13.29% | 20.69% | 14.71% | Basic | 13.26% | 20.61% | 14.70% |
| COL | 6.00% | 10.56% | 6.87% | COL | 6.00% | 10.54% | 6.88% |
| Total | 19.29% | 31.25% | 21.58% | Total | 19.26% | 31.15% | 21.58% |
| **UAL Amortization Cost** | | | | **UAL Amortization Cost** | | | |
| Basic | 20.85% | 44.44% | 25.30% | Basic | 20.94% | 45.40% | 25.65% |
| COL | 8.80% | 16.84% | 10.32% | COL | 9.66% | 18.33% | 11.33% |
| Total | 29.65% | 61.28% | 35.62% | Total | 30.60% | 63.73% | 36.98% |
| **Total Cost** | | | | **Total Cost** | | | |
| Basic | 34.14% | 65.13% | 40.01% | Basic | 34.20% | 66.01% | 40.35% |
| COL | 14.80% | 27.40% | 17.19% | COL | 15.66% | 28.87% | 18.21% |
| Total | 48.94% | 92.53% | 57.20% | Total | 49.86% | 94.88% | 58.56% |

*Rates include the employer share of the administrative expenses.*

## APPENDIX F – GENERAL AND SAFETY EMPLOYER CONTRIBUTION RATES

### Tier 1: Contribution Rates for General and Safety (with COLA Cost-sharing)

Separate rates for General and Safety members contributing Normal Rates plus COLA Cost-sharing are shown below.

| As of January 1, 2020 | | | | As of January 1, 2021 | | | |
|---|---|---|---|---|---|---|---|
| | General | Safety | Total | | General | Safety | Total |
| **Employer Normal Cost** | | | | **Employer Normal Cost** | | | |
| Basic | 13.85% | 22.31% | 15.47% | Basic | 13.82% | 22.23% | 15.46% |
| COL | 3.09% | 5.48% | 3.55% | COL | 3.11% | 5.46% | 3.57% |
| Total | 16.94% | 27.79% | 19.02% | Total | 16.93% | 27.69% | 19.03% |
| **UAL Amortization Cost** | | | | **UAL Amortization Cost** | | | |
| Basic | 20.85% | 44.44% | 25.30% | Basic | 20.94% | 45.40% | 25.65% |
| COL | 8.80% | 16.84% | 10.32% | COL | 9.66% | 18.33% | 11.33% |
| Total | 29.65% | 61.28% | 35.62% | Total | 30.60% | 63.73% | 36.98% |
| **Total Cost** | | | | **Total Cost** | | | |
| Basic | 34.70% | 66.75% | 40.77% | Basic | 34.76% | 67.63% | 41.11% |
| COL | 11.89% | 22.32% | 13.87% | COL | 12.77% | 23.79% | 14.90% |
| Total | 46.59% | 89.07% | 54.64% | Total | 47.53% | 91.42% | 56.01% |

*Rates include the employer share of the administrative expenses.*

## APPENDIX F – GENERAL AND SAFETY EMPLOYER CONTRIBUTION RATES

**Tier 1: Contribution Rates for General and Safety (Employer Cost with additional 14% / 33% Normal Rates by members and COLA Cost-sharing)**

Separate rates for General and Safety members contributing an additional 14% / 33% of Normal Rates and COLA Cost-sharing are shown below.

| | As of January 1, 2020 | | | | As of January 1, 2021 | | |
|---|---|---|---|---|---|---|---|
| | General | Safety | Total | | General | Safety | Total |
| **Employer Normal Cost** | | | | **Employer Normal Cost** | | | |
| Basic | 13.29% | 20.69% | 14.71% | Basic | 13.26% | 20.61% | 14.70% |
| COL | 3.09% | 5.48% | 3.55% | COL | 3.11% | 5.46% | 3.56% |
| Total | 16.38% | 26.17% | 18.26% | Total | 16.37% | 26.07% | 18.26% |
| **UAL Amortization Cost** | | | | **UAL Amortization Cost** | | | |
| Basic | 20.85% | 44.44% | 25.30% | Basic | 20.94% | 45.40% | 25.65% |
| COL | 8.80% | 16.84% | 10.32% | COL | 9.66% | 18.33% | 11.33% |
| Total | 29.65% | 61.28% | 35.62% | Total | 30.60% | 63.73% | 36.98% |
| **Total Cost** | | | | **Total Cost** | | | |
| Basic | 34.14% | 65.13% | 40.01% | Basic | 34.20% | 66.01% | 40.35% |
| COL | 11.89% | 22.32% | 13.87% | COL | 12.77% | 23.79% | 14.89% |
| Total | 46.03% | 87.45% | 53.88% | Total | 46.97% | 89.80% | 55.24% |

*Rates include the employer share of the administrative expenses.*

## APPENDIX F – GENERAL AND SAFETY EMPLOYER CONTRIBUTION RATES

### Tier 2: Contribution Rates for General and Safety (PEPRA Members)

Separate rates for General and Safety members are shown below. These rates are applicable for employment groups that are subject to Government Code Section 7522.30.

| As of January 1, 2020 | | | | As of January 1, 2021 | | | |
|---|---|---|---|---|---|---|---|
| | General | Safety | Total | | General | Safety | Total |
| **Employer Normal Cost** | | | | **Employer Normal Cost** | | | |
| Basic | 7.52% | 11.05% | 7.92% | Basic | 7.53% | 10.98% | 7.92% |
| COL | 2.45% | 4.41% | 2.67% | COL | 2.46% | 4.44% | 2.69% |
| Total | 9.97% | 15.46% | 10.59% | Total | 9.99% | 15.42% | 10.61% |
| **UAL Amortization Cost** | | | | **UAL Amortization Cost** | | | |
| Basic | 20.85% | 44.44% | 23.42% | Basic | 20.94% | 45.40% | 23.66% |
| COL | 8.80% | 16.84% | 9.68% | COL | 9.66% | 18.33% | 10.62% |
| Total | 29.65% | 61.28% | 33.10% | Total | 30.60% | 63.73% | 34.28% |
| **Total Cost** | | | | **Total Cost** | | | |
| Basic | 28.37% | 55.49% | 31.34% | Basic | 28.47% | 56.38% | 31.58% |
| COL | 11.25% | 21.25% | 12.35% | COL | 12.12% | 22.77% | 13.31% |
| Total | 39.62% | 76.74% | 43.69% | Total | 40.59% | 79.15% | 44.89% |

*Rates include the employer share of the administrative expenses.*

## APPENDIX F – GENERAL AND SAFETY EMPLOYER CONTRIBUTION RATES

**Total Normal Cost Rates for General and Safety**

| As of January 1, 2020 | | | | As of January 1, 2021 | | | |
|---|---|---|---|---|---|---|---|
| | General | Safety | Total | | General | Safety | Total |
| **Total Normal Cost** | | | | **Total Normal Cost** | | | |
| Tier 1 | 23.82% | 37.80% | 26.50% | Tier 1 | 23.77% | 37.71% | 26.49% |
| Tier 2 | 19.94% | 30.92% | 21.18% | Tier 2 | 19.98% | 30.84% | 21.22% |

## APPENDIX G – MEMBER CONTRIBUTION RATES

**General Member Contribution Rates**
**Basic Half Rate (Government Code Section 31621.3)**

| | Basic Rate | | COLA Cost-Sharing Rate[1] | |
|---|---|---|---|---|
| Entry Age | 1st $350/month | Over $350 | 1st $350/month | Over $350 |
| 16 | 1.97% | 2.95% | 1.37% | 2.06% |
| 17 | 1.97% | 2.95% | 1.37% | 2.06% |
| 18 | 1.97% | 2.95% | 1.37% | 2.06% |
| 19 | 1.97% | 2.95% | 1.37% | 2.06% |
| 20 | 1.97% | 2.95% | 1.37% | 2.06% |
| 21 | 2.01% | 3.01% | 1.41% | 2.12% |
| 22 | 2.05% | 3.07% | 1.45% | 2.18% |
| 23 | 2.09% | 3.14% | 1.50% | 2.25% |
| 24 | 2.13% | 3.20% | 1.54% | 2.31% |
| 25 | 2.18% | 3.27% | 1.58% | 2.37% |
| 26 | 2.23% | 3.34% | 1.62% | 2.43% |
| 27 | 2.27% | 3.41% | 1.66% | 2.49% |
| 28 | 2.32% | 3.48% | 1.69% | 2.54% |
| 29 | 2.37% | 3.55% | 1.73% | 2.60% |
| 30 | 2.41% | 3.62% | 1.77% | 2.65% |
| 31 | 2.47% | 3.70% | 1.80% | 2.70% |
| 32 | 2.51% | 3.77% | 1.83% | 2.75% |
| 33 | 2.57% | 3.85% | 1.87% | 2.81% |
| 34 | 2.62% | 3.93% | 1.91% | 2.87% |
| 35 | 2.68% | 4.02% | 1.96% | 2.94% |
| 36 | 2.73% | 4.10% | 2.01% | 3.01% |
| 37 | 2.79% | 4.19% | 2.06% | 3.09% |
| 38 | 2.85% | 4.28% | 2.12% | 3.18% |
| 39 | 2.92% | 4.38% | 2.18% | 3.27% |
| 40 | 2.97% | 4.46% | 2.25% | 3.37% |
| 41 | 3.03% | 4.54% | 2.31% | 3.46% |
| 42 | 3.08% | 4.62% | 2.37% | 3.55% |
| 43 | 3.14% | 4.71% | 2.43% | 3.64% |
| 44 | 3.21% | 4.81% | 2.49% | 3.73% |
| 45 | 3.26% | 4.89% | 2.55% | 3.83% |
| 46 | 3.33% | 4.99% | 2.63% | 3.94% |
| 47 | 3.37% | 5.05% | 2.65% | 3.97% |
| 48 | 3.42% | 5.13% | 2.67% | 4.01% |
| 49 | 3.47% | 5.21% | 2.69% | 4.03% |
| 50 | 3.54% | 5.31% | 2.70% | 4.05% |
| 51 | 3.55% | 5.33% | 2.71% | 4.07% |
| 52 | 3.58% | 5.37% | 2.72% | 4.08% |
| 53 | 3.53% | 5.30% | 2.71% | 4.06% |
| 54+ | 3.47% | 5.20% | 2.66% | 3.99% |

[1] Some members and employers share equally the contributions required for post-retirement cost-of-living adjustments (COLA) in accordance with Government Code Section 31873. For other members, the employers pay all of the contributions required for post-retirement COLA.

*Rates include the employee share of the administrative expenses.*

# APPENDIX G – MEMBER CONTRIBUTION RATES

**General Member Contribution Rates**

**Basic Half Rate (Government Code Section 31621.3) + 14%, not greater than 1/2 Normal Cost**

| | Basic Rate | | COLA Cost-Sharing Rate[1] | |
|---|---|---|---|---|
| Entry Age | 1st $350/month | Over $350 | 1st $350/month | Over $350 |
| 16 | 2.24% | 3.36% | 1.38% | 2.07% |
| 17 | 2.24% | 3.36% | 1.38% | 2.07% |
| 18 | 2.24% | 3.36% | 1.38% | 2.07% |
| 19 | 2.24% | 3.36% | 1.38% | 2.07% |
| 20 | 2.24% | 3.36% | 1.38% | 2.07% |
| 21 | 2.29% | 3.43% | 1.41% | 2.12% |
| 22 | 2.33% | 3.50% | 1.45% | 2.18% |
| 23 | 2.39% | 3.58% | 1.50% | 2.25% |
| 24 | 2.43% | 3.65% | 1.55% | 2.32% |
| 25 | 2.49% | 3.73% | 1.58% | 2.37% |
| 26 | 2.54% | 3.81% | 1.62% | 2.43% |
| 27 | 2.59% | 3.89% | 1.66% | 2.49% |
| 28 | 2.65% | 3.97% | 1.69% | 2.54% |
| 29 | 2.70% | 4.05% | 1.73% | 2.60% |
| 30 | 2.75% | 4.13% | 1.77% | 2.65% |
| 31 | 2.81% | 4.22% | 1.80% | 2.70% |
| 32 | 2.87% | 4.30% | 1.84% | 2.76% |
| 33 | 2.93% | 4.39% | 1.87% | 2.81% |
| 34 | 2.99% | 4.48% | 1.91% | 2.87% |
| 35 | 3.05% | 4.58% | 1.96% | 2.94% |
| 36 | 3.11% | 4.67% | 2.01% | 3.01% |
| 37 | 3.19% | 4.78% | 2.07% | 3.10% |
| 38 | 3.25% | 4.88% | 2.12% | 3.18% |
| 39 | 3.33% | 4.99% | 2.19% | 3.28% |
| 40 | 3.39% | 5.08% | 2.25% | 3.37% |
| 41 | 3.45% | 5.18% | 2.31% | 3.46% |
| 42 | 3.51% | 5.27% | 2.37% | 3.55% |
| 43 | 3.58% | 5.37% | 2.43% | 3.64% |
| 44 | 3.65% | 5.48% | 2.49% | 3.73% |
| 45 | 3.71% | 5.57% | 2.56% | 3.84% |
| 46 | 3.79% | 5.69% | 2.63% | 3.94% |
| 47 | 3.84% | 5.76% | 2.65% | 3.97% |
| 48 | 3.90% | 5.85% | 2.67% | 4.01% |
| 49 | 3.96% | 5.94% | 2.69% | 4.03% |
| 50 | 4.03% | 6.05% | 2.71% | 4.06% |
| 51 | 4.05% | 6.08% | 2.71% | 4.07% |
| 52 | 4.08% | 6.12% | 2.72% | 4.08% |
| 53 | 4.03% | 6.04% | 2.71% | 4.06% |
| 54+ | 3.95% | 5.93% | 2.67% | 4.00% |

[1] Some members and employers share equally the contributions required for post-retirement cost-of-living adjustments (COLA) in accordance with Government Code Section 31873. For other members, the employers pay all of the contributions required for post-retirement COLA.

*Rates include the employee share of the administrative expenses.*

# APPENDIX G – MEMBER CONTRIBUTION RATES

**Safety Member Contribution Rates**
**Basic Half Rate (Government Code Section 31639.5)**

| | Basic Rate | | COLA Cost-Sharing Rate[1] | |
|---|---|---|---|---|
| Entry Age | 1st $350/month | Over $350 | 1st $350/month | Over $350 |
| 16 | 2.97% | 4.45% | 3.12% | 4.68% |
| 17 | 2.97% | 4.45% | 3.12% | 4.68% |
| 18 | 2.97% | 4.45% | 3.12% | 4.68% |
| 19 | 2.97% | 4.45% | 3.12% | 4.68% |
| 20 | 2.97% | 4.45% | 3.12% | 4.68% |
| 21 | 3.01% | 4.51% | 3.23% | 4.84% |
| 22 | 3.05% | 4.58% | 3.28% | 4.92% |
| 23 | 3.10% | 4.65% | 3.33% | 4.99% |
| 24 | 3.15% | 4.72% | 3.37% | 5.06% |
| 25 | 3.20% | 4.80% | 3.42% | 5.13% |
| 26 | 3.25% | 4.87% | 3.46% | 5.19% |
| 27 | 3.30% | 4.95% | 3.51% | 5.26% |
| 28 | 3.35% | 5.02% | 3.54% | 5.31% |
| 29 | 3.40% | 5.10% | 3.58% | 5.37% |
| 30 | 3.45% | 5.18% | 3.62% | 5.43% |
| 31 | 3.51% | 5.26% | 3.62% | 5.43% |
| 32 | 3.57% | 5.35% | 3.67% | 5.50% |
| 33 | 3.62% | 5.43% | 3.72% | 5.58% |
| 34 | 3.68% | 5.52% | 3.73% | 5.59% |
| 35 | 3.74% | 5.61% | 3.74% | 5.61% |
| 36 | 3.81% | 5.71% | 3.76% | 5.64% |
| 37 | 3.87% | 5.81% | 3.80% | 5.70% |
| 38 | 3.94% | 5.91% | 3.85% | 5.77% |
| 39 | 4.01% | 6.02% | 3.90% | 5.85% |
| 40 | 4.09% | 6.14% | 3.97% | 5.96% |
| 41 | 4.18% | 6.27% | 4.03% | 6.04% |
| 42 | 4.28% | 6.42% | 4.08% | 6.12% |
| 43 | 4.39% | 6.59% | 4.15% | 6.23% |
| 44 | 4.49% | 6.73% | 4.23% | 6.35% |
| 45 | 4.48% | 6.72% | 4.31% | 6.46% |
| 46 | 4.49% | 6.73% | 4.36% | 6.54% |
| 47 | 4.52% | 6.78% | 4.39% | 6.59% |
| 48 | 4.39% | 6.59% | 4.42% | 6.63% |
| 49+ | 4.27% | 6.41% | 4.45% | 6.67% |

[1] Some members and employers share equally the contributions required for post-retirement cost-of-living adjustments (COLA) in accordance with Government Code Section 31873. For other members, the employers pay all of the contributions required for post-retirement COLA.

*Rates include the employee share of the administrative expenses.*

# APPENDIX G – MEMBER CONTRIBUTION RATES

**Safety Member Contribution Rates**

**Basic Half Rate (Government Code Section 31639.5) + 33% , not greater than 1/2 Normal Cost**

| | Basic Rate | | COLA Cost-Sharing Rate[1] | |
|---|---|---|---|---|
| Entry Age | 1st $350/month | Over $350 | 1st $350/month | Over $350 |
| 16 | 3.95% | 5.92% | 3.12% | 4.68% |
| 17 | 3.95% | 5.92% | 3.12% | 4.68% |
| 18 | 3.95% | 5.92% | 3.12% | 4.68% |
| 19 | 3.95% | 5.92% | 3.12% | 4.68% |
| 20 | 3.95% | 5.92% | 3.12% | 4.68% |
| 21 | 4.00% | 6.00% | 3.23% | 4.84% |
| 22 | 4.06% | 6.09% | 3.28% | 4.92% |
| 23 | 4.12% | 6.18% | 3.33% | 5.00% |
| 24 | 4.19% | 6.28% | 3.37% | 5.06% |
| 25 | 4.25% | 6.38% | 3.42% | 5.13% |
| 26 | 4.32% | 6.48% | 3.46% | 5.19% |
| 27 | 4.39% | 6.58% | 3.51% | 5.26% |
| 28 | 4.45% | 6.68% | 3.55% | 5.32% |
| 29 | 4.52% | 6.78% | 3.58% | 5.37% |
| 30 | 4.59% | 6.89% | 3.62% | 5.43% |
| 31 | 4.67% | 7.00% | 3.63% | 5.44% |
| 32 | 4.75% | 7.12% | 3.67% | 5.50% |
| 33 | 4.81% | 7.22% | 3.72% | 5.58% |
| 34 | 4.89% | 7.34% | 3.73% | 5.59% |
| 35 | 4.97% | 7.46% | 3.74% | 5.61% |
| 36 | 5.06% | 7.59% | 3.76% | 5.64% |
| 37 | 5.15% | 7.73% | 3.80% | 5.70% |
| 38 | 5.24% | 7.86% | 3.85% | 5.78% |
| 39 | 5.34% | 8.01% | 3.90% | 5.85% |
| 40 | 5.45% | 8.17% | 3.98% | 5.97% |
| 41 | 5.56% | 8.34% | 4.03% | 6.05% |
| 42 | 5.69% | 8.54% | 4.08% | 6.12% |
| 43 | 5.84% | 8.76% | 4.15% | 6.23% |
| 44 | 5.97% | 8.95% | 4.24% | 6.36% |
| 45 | 5.96% | 8.94% | 4.31% | 6.46% |
| 46 | 5.97% | 8.95% | 4.36% | 6.54% |
| 47 | 6.01% | 9.02% | 4.39% | 6.59% |
| 48 | 5.84% | 8.76% | 4.42% | 6.63% |
| 49+ | 5.69% | 8.53% | 4.45% | 6.67% |

[1] Some members and employers share equally the contributions required for post-retirement cost-of-living adjustments (COLA) in accordance with Government Code Section 31873. For other members, the employers pay all of the contributions required for post-retirement COLA.

*Rates include the employee share of the administrative expenses.*

CHEIRON

*Classic Values, Innovative Advice*

**RESOLUTION TITLE:** **Actuarial Report and 2022 Retirement Contribution Rates**

**RESOLUTION NO.** **2021-08-01**

WHEREAS, in compliance with Government Code Section 31453, the Board of Retirement requested its consulting actuary, Cheiron, to conduct an actuarial valuation as of January 1, 2021; and

WHEREAS, the Board of Retirement elected to maintain the 7.0 percent assumed rate of return; and

WHEREAS, the actuary has determined the recommended employer and member contribution rates for calendar year 2022 for Tiers 1 and 2.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Retirement approves the recommended retirement contribution rates for 2022 expressed as a percentage of active member payroll to be effective the first payday after January 1, 2022 as shown in the following attachments, which are hereby incorporated into and made a part of this Resolution:

Attachment 1 SJCERA – Retirement Contribution Rates – 2022
Attachment 2 Table 1A – General Member Contribution Rates
Attachment 3 Table 1B – General Member Contribution Rates
Attachment 4 Table 2A – Safety Member Contribution Rates
Attachment 5 Table 2B – Safety Member Contribution Rates

PASSED AND APPROVED by the Board of Retirement of the San Joaquin County Employees' Retirement Association on the 13th day of August 2021.

AYES:

NOES:

MICHAEL RESTUCCIA, Chair

ABSENT:

Attest:

ABSTAIN:

RAYMOND McCRAY, Secretary

Resolution 2021-08-01
Attachment 1

# SJCERA - RETIREMENT CONTRIBUTION RATES - 2022

As determined by annual actuarial valuation as of January 1, 2021

Expressed as a Percentage of Active Member Payroll

| | TIER 1 | | | TIER 1 w/COLA Cost Sharing | | | TIER 1 w/COLA Cost Sharing Plus | | | TIER 2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **EMPLOYER CONTRIBUTIONS:** | GENERAL | SAFETY | COMPOSITE TOTAL | GENERAL | SAFETY | COMPOSITE TOTAL | GENERAL | SAFETY | COMPOSITE TOTAL | GENERAL | SAFETY | COMPOSITE TOTAL |
| **Normal Cost** | | | | | | | | | | | | |
| Basic | 13.82% | 22.23% | 15.46% | 13.82% | 22.23% | 15.46% | 13.26% | 20.61% | 14.70% | 7.53% | 10.98% | 7.92% |
| Post-retirement COLA | 6.00% | 10.54% | 6.89% | 3.11% | 5.46% | 3.57% | 3.11% | 5.46% | 3.56% | 2.46% | 4.44% | 2.69% |
| Total | 19.82% | 32.77% | 22.35% | 16.93% | 27.69% | 19.03% | 16.37% | 26.07% | 18.26% | 9.99% | 15.42% | 10.61% |
| **UAL Amortization Cost** | | | | | | | | | | | | |
| Basic | 20.94% | 45.40% | 25.65% | 20.94% | 45.40% | 25.65% | 20.94% | 45.40% | 25.65% | 20.94% | 45.40% | 23.66% |
| Post-retirement COLA | 9.66% | 18.33% | 11.33% | 9.66% | 18.33% | 11.33% | 9.66% | 18.33% | 11.33% | 9.66% | 18.33% | 10.62% |
| Total | 30.60% | 63.73% | 36.98% | 30.60% | 63.73% | 36.98% | 30.60% | 63.73% | 36.98% | 30.60% | 63.73% | 34.28% |
| **Total Plan Cost** | | | | | | | | | | | | |
| Basic | 34.76% | 67.63% | 41.11% | 34.76% | 67.63% | 41.11% | 34.20% | 66.01% | 40.35% | 28.47% | 56.38% | 31.58% |
| Post-Retirement COLA | 15.66% | 28.87% | 18.22% | 12.77% | 23.79% | 14.90% | 12.77% | 23.79% | 14.89% | 12.12% | 22.77% | 13.31% |
| **Total** | **50.42%** | **96.50%** | **59.33%** | **47.53%** | **91.42%** | **56.01%** | **46.97%** | **89.80%** | **55.24%** | **40.59%** | **79.15%** | **44.89%** |
| Total Plan Normal Cost | 23.77% | 37.71% | 26.49% | 23.77% | 37.71% | 26.49% | 23.77% | 37.71% | 26.49% | 19.98% | 30.84% | 21.22% |
| **MEMBER CONTRIBUTIONS:** | Table 1A "Basic Rate" from 1/1/21 Valuation Report | Table 2A "Basic Rate" from 1/1/21 Valuation Report | | Table 1A "Basic Rate" + "COLA Cost Share Rate" from 1/1/21 Valuation Report | Table 2A "Basic Rate" + "COLA Cost Share Rate" from 1/1/21 Valuation Report | | Table 1B "114% of Basic Rate" + "COLA Cost Share Rate" from 1/1/21 Valuation Report | Table 2B "133% of Basic Rate" + "COLA Cost Share Rate" from 1/1/21 Valuation Report | | **9.99%** | **15.42%** | |

Printed 8/5/21 4:34 PM

# APPENDIX G – MEMBER CONTRIBUTION RATES

**General Member Contribution Rates**
**Basic Half Rate (Government Code Section 31621.3)**

| | Basic Rate | | COLA Cost-Sharing Rate[1] | |
|---|---|---|---|---|
| Entry Age | 1st $350/month | Over $350 | 1st $350/month | Over $350 |
| 16 | 1.97% | 2.95% | 1.37% | 2.06% |
| 17 | 1.97% | 2.95% | 1.37% | 2.06% |
| 18 | 1.97% | 2.95% | 1.37% | 2.06% |
| 19 | 1.97% | 2.95% | 1.37% | 2.06% |
| 20 | 1.97% | 2.95% | 1.37% | 2.06% |
| 21 | 2.01% | 3.01% | 1.41% | 2.12% |
| 22 | 2.05% | 3.07% | 1.45% | 2.18% |
| 23 | 2.09% | 3.14% | 1.50% | 2.25% |
| 24 | 2.13% | 3.20% | 1.54% | 2.31% |
| 25 | 2.18% | 3.27% | 1.58% | 2.37% |
| 26 | 2.23% | 3.34% | 1.62% | 2.43% |
| 27 | 2.27% | 3.41% | 1.66% | 2.49% |
| 28 | 2.32% | 3.48% | 1.69% | 2.54% |
| 29 | 2.37% | 3.55% | 1.73% | 2.60% |
| 30 | 2.41% | 3.62% | 1.77% | 2.65% |
| 31 | 2.47% | 3.70% | 1.80% | 2.70% |
| 32 | 2.51% | 3.77% | 1.83% | 2.75% |
| 33 | 2.57% | 3.85% | 1.87% | 2.81% |
| 34 | 2.62% | 3.93% | 1.91% | 2.87% |
| 35 | 2.68% | 4.02% | 1.96% | 2.94% |
| 36 | 2.73% | 4.10% | 2.01% | 3.01% |
| 37 | 2.79% | 4.19% | 2.06% | 3.09% |
| 38 | 2.85% | 4.28% | 2.12% | 3.18% |
| 39 | 2.92% | 4.38% | 2.18% | 3.27% |
| 40 | 2.97% | 4.46% | 2.25% | 3.37% |
| 41 | 3.03% | 4.54% | 2.31% | 3.46% |
| 42 | 3.08% | 4.62% | 2.37% | 3.55% |
| 43 | 3.14% | 4.71% | 2.43% | 3.64% |
| 44 | 3.21% | 4.81% | 2.49% | 3.73% |
| 45 | 3.26% | 4.89% | 2.55% | 3.83% |
| 46 | 3.33% | 4.99% | 2.63% | 3.94% |
| 47 | 3.37% | 5.05% | 2.65% | 3.97% |
| 48 | 3.42% | 5.13% | 2.67% | 4.01% |
| 49 | 3.47% | 5.21% | 2.69% | 4.03% |
| 50 | 3.54% | 5.31% | 2.70% | 4.05% |
| 51 | 3.55% | 5.33% | 2.71% | 4.07% |
| 52 | 3.58% | 5.37% | 2.72% | 4.08% |
| 53 | 3.53% | 5.30% | 2.71% | 4.06% |
| 54+ | 3.47% | 5.20% | 2.66% | 3.99% |

[1] Some members and employers share equally the contributions required for post-retirement cost-of-living adjustments (COLA) in accordance with Government Code Section 31873. For other members, the employers pay all of the contributions required for post-retirement COLA.

*Rates include the employee share of the administrative expenses.*

# APPENDIX G – MEMBER CONTRIBUTION RATES

**General Member Contribution Rates**

**Basic Half Rate (Government Code Section 31621.3) + 14%, not greater than 1/2 Normal Cost**

| | Basic Rate | | COLA Cost-Sharing Rate[1] | |
|---|---|---|---|---|
| Entry Age | 1st $350/month | Over $350 | 1st $350/month | Over $350 |
| 16 | 2.24% | 3.36% | 1.38% | 2.07% |
| 17 | 2.24% | 3.36% | 1.38% | 2.07% |
| 18 | 2.24% | 3.36% | 1.38% | 2.07% |
| 19 | 2.24% | 3.36% | 1.38% | 2.07% |
| 20 | 2.24% | 3.36% | 1.38% | 2.07% |
| 21 | 2.29% | 3.43% | 1.41% | 2.12% |
| 22 | 2.33% | 3.50% | 1.45% | 2.18% |
| 23 | 2.39% | 3.58% | 1.50% | 2.25% |
| 24 | 2.43% | 3.65% | 1.55% | 2.32% |
| 25 | 2.49% | 3.73% | 1.58% | 2.37% |
| 26 | 2.54% | 3.81% | 1.62% | 2.43% |
| 27 | 2.59% | 3.89% | 1.66% | 2.49% |
| 28 | 2.65% | 3.97% | 1.69% | 2.54% |
| 29 | 2.70% | 4.05% | 1.73% | 2.60% |
| 30 | 2.75% | 4.13% | 1.77% | 2.65% |
| 31 | 2.81% | 4.22% | 1.80% | 2.70% |
| 32 | 2.87% | 4.30% | 1.84% | 2.76% |
| 33 | 2.93% | 4.39% | 1.87% | 2.81% |
| 34 | 2.99% | 4.48% | 1.91% | 2.87% |
| 35 | 3.05% | 4.58% | 1.96% | 2.94% |
| 36 | 3.11% | 4.67% | 2.01% | 3.01% |
| 37 | 3.19% | 4.78% | 2.07% | 3.10% |
| 38 | 3.25% | 4.88% | 2.12% | 3.18% |
| 39 | 3.33% | 4.99% | 2.19% | 3.28% |
| 40 | 3.39% | 5.08% | 2.25% | 3.37% |
| 41 | 3.45% | 5.18% | 2.31% | 3.46% |
| 42 | 3.51% | 5.27% | 2.37% | 3.55% |
| 43 | 3.58% | 5.37% | 2.43% | 3.64% |
| 44 | 3.65% | 5.48% | 2.49% | 3.73% |
| 45 | 3.71% | 5.57% | 2.56% | 3.84% |
| 46 | 3.79% | 5.69% | 2.63% | 3.94% |
| 47 | 3.84% | 5.76% | 2.65% | 3.97% |
| 48 | 3.90% | 5.85% | 2.67% | 4.01% |
| 49 | 3.96% | 5.94% | 2.69% | 4.03% |
| 50 | 4.03% | 6.05% | 2.71% | 4.06% |
| 51 | 4.05% | 6.08% | 2.71% | 4.07% |
| 52 | 4.08% | 6.12% | 2.72% | 4.08% |
| 53 | 4.03% | 6.04% | 2.71% | 4.06% |
| 54+ | 3.95% | 5.93% | 2.67% | 4.00% |

[1] Some members and employers share equally the contributions required for post-retirement cost-of-living adjustments (COLA) in accordance with Government Code Section 31873. For other members, the employers pay all of the contributions required for post-retirement COLA.

*Rates include the employee share of the administrative expenses.*

## APPENDIX G – MEMBER CONTRIBUTION RATES

**Safety Member Contribution Rates**
**Basic Half Rate (Government Code Section 31639.5)**

| | Basic Rate | | COLA Cost-Sharing Rate[1] | |
|---|---|---|---|---|
| Entry Age | 1st $350/month | Over $350 | 1st $350/month | Over $350 |
| 16 | 2.97% | 4.45% | 3.12% | 4.68% |
| 17 | 2.97% | 4.45% | 3.12% | 4.68% |
| 18 | 2.97% | 4.45% | 3.12% | 4.68% |
| 19 | 2.97% | 4.45% | 3.12% | 4.68% |
| 20 | 2.97% | 4.45% | 3.12% | 4.68% |
| 21 | 3.01% | 4.51% | 3.23% | 4.84% |
| 22 | 3.05% | 4.58% | 3.28% | 4.92% |
| 23 | 3.10% | 4.65% | 3.33% | 4.99% |
| 24 | 3.15% | 4.72% | 3.37% | 5.06% |
| 25 | 3.20% | 4.80% | 3.42% | 5.13% |
| 26 | 3.25% | 4.87% | 3.46% | 5.19% |
| 27 | 3.30% | 4.95% | 3.51% | 5.26% |
| 28 | 3.35% | 5.02% | 3.54% | 5.31% |
| 29 | 3.40% | 5.10% | 3.58% | 5.37% |
| 30 | 3.45% | 5.18% | 3.62% | 5.43% |
| 31 | 3.51% | 5.26% | 3.62% | 5.43% |
| 32 | 3.57% | 5.35% | 3.67% | 5.50% |
| 33 | 3.62% | 5.43% | 3.72% | 5.58% |
| 34 | 3.68% | 5.52% | 3.73% | 5.59% |
| 35 | 3.74% | 5.61% | 3.74% | 5.61% |
| 36 | 3.81% | 5.71% | 3.76% | 5.64% |
| 37 | 3.87% | 5.81% | 3.80% | 5.70% |
| 38 | 3.94% | 5.91% | 3.85% | 5.77% |
| 39 | 4.01% | 6.02% | 3.90% | 5.85% |
| 40 | 4.09% | 6.14% | 3.97% | 5.96% |
| 41 | 4.18% | 6.27% | 4.03% | 6.04% |
| 42 | 4.28% | 6.42% | 4.08% | 6.12% |
| 43 | 4.39% | 6.59% | 4.15% | 6.23% |
| 44 | 4.49% | 6.73% | 4.23% | 6.35% |
| 45 | 4.48% | 6.72% | 4.31% | 6.46% |
| 46 | 4.49% | 6.73% | 4.36% | 6.54% |
| 47 | 4.52% | 6.78% | 4.39% | 6.59% |
| 48 | 4.39% | 6.59% | 4.42% | 6.63% |
| 49+ | 4.27% | 6.41% | 4.45% | 6.67% |

[1] Some members and employers share equally the contributions required for post-retirement cost-of-living adjustments (COLA) in accordance with Government Code Section 31873. For other members, the employers pay all of the contributions required for post-retirement COLA.

*Rates include the employee share of the administrative expenses.*

# APPENDIX G – MEMBER CONTRIBUTION RATES

**Safety Member Contribution Rates**
**Basic Half Rate (Government Code Section 31639.5) + 33% , not greater than 1/2 Normal Cost**

| | Basic Rate | | COLA Cost-Sharing Rate[1] | |
|---|---|---|---|---|
| Entry Age | 1st $350/month | Over $350 | 1st $350/month | Over $350 |
| 16 | 3.95% | 5.92% | 3.12% | 4.68% |
| 17 | 3.95% | 5.92% | 3.12% | 4.68% |
| 18 | 3.95% | 5.92% | 3.12% | 4.68% |
| 19 | 3.95% | 5.92% | 3.12% | 4.68% |
| 20 | 3.95% | 5.92% | 3.12% | 4.68% |
| 21 | 4.00% | 6.00% | 3.23% | 4.84% |
| 22 | 4.06% | 6.09% | 3.28% | 4.92% |
| 23 | 4.12% | 6.18% | 3.33% | 5.00% |
| 24 | 4.19% | 6.28% | 3.37% | 5.06% |
| 25 | 4.25% | 6.38% | 3.42% | 5.13% |
| 26 | 4.32% | 6.48% | 3.46% | 5.19% |
| 27 | 4.39% | 6.58% | 3.51% | 5.26% |
| 28 | 4.45% | 6.68% | 3.55% | 5.32% |
| 29 | 4.52% | 6.78% | 3.58% | 5.37% |
| 30 | 4.59% | 6.89% | 3.62% | 5.43% |
| 31 | 4.67% | 7.00% | 3.63% | 5.44% |
| 32 | 4.75% | 7.12% | 3.67% | 5.50% |
| 33 | 4.81% | 7.22% | 3.72% | 5.58% |
| 34 | 4.89% | 7.34% | 3.73% | 5.59% |
| 35 | 4.97% | 7.46% | 3.74% | 5.61% |
| 36 | 5.06% | 7.59% | 3.76% | 5.64% |
| 37 | 5.15% | 7.73% | 3.80% | 5.70% |
| 38 | 5.24% | 7.86% | 3.85% | 5.78% |
| 39 | 5.34% | 8.01% | 3.90% | 5.85% |
| 40 | 5.45% | 8.17% | 3.98% | 5.97% |
| 41 | 5.56% | 8.34% | 4.03% | 6.05% |
| 42 | 5.69% | 8.54% | 4.08% | 6.12% |
| 43 | 5.84% | 8.76% | 4.15% | 6.23% |
| 44 | 5.97% | 8.95% | 4.24% | 6.36% |
| 45 | 5.96% | 8.94% | 4.31% | 6.46% |
| 46 | 5.97% | 8.95% | 4.36% | 6.54% |
| 47 | 6.01% | 9.02% | 4.39% | 6.59% |
| 48 | 5.84% | 8.76% | 4.42% | 6.63% |
| 49+ | 5.69% | 8.53% | 4.45% | 6.67% |

[1] Some members and employers share equally the contributions required for post-retirement cost-of-living adjustments (COLA) in accordance with Government Code Section 31873. For other members, the employers pay all of the contributions required for post-retirement COLA.

*Rates include the employee share of the administrative expenses.*

# San Joaquin County Employees Retirement Association (SJCERA)

## Preliminary Monthly Flash Report (Net)[1] — June 2021

| | Commitment ($000) | Sub-Segment | Market Value | Physical % of Total | Policy Target % | 1-Mo | 3-Mos | YTD | 1-Yr | 3-Yrs | 5-Yrs | SI Return | SI Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL PLAN[1] | | | $ 3,799,450,556 | 100.0% | 100.0% | 1.4 | 5.3 | 7.9 | 19.3 | 9.0 | 8.4 | 8.0 | Apr-90 |
| *Policy Benchmark [4]* | | | | | | *1.2* | *4.1* | *6.9* | *21.0* | *9.8* | *9.3* | *7.8* | |
| Difference: | | | | | | 0.2 | 1.2 | 1.0 | -1.7 | -0.8 | -0.9 | 0.2 | |
| *75/25 Portfolio [5]* | | | | | | *0.8* | *6.0* | *8.4* | *29.7* | *13.5* | *11.6* | *7.8* | |
| Difference: | | | | | | 0.6 | -0.7 | -0.5 | -10.4 | -4.5 | -3.2 | 0.2 | |
| Broad Growth | | | $ 2,876,453,417 | 75.7% | 75.0% | 1.6 | 6.0 | 10.1 | 24.8 | 10.3 | 10.4 | 8.7 | Jan-95 |
| Aggressive Growth Lag[2] | | | $ 278,633,360 | 7.3% | 10.0% | 10.1 | 10.1 | 10.1 | 12.4 | 9.9 | 10.2 | -4.8 | Feb-05 |
| *MSCI ACWI +2%Lag* | | | | | | *3.0* | *8.3* | *8.3* | *11.9* | *10.8* | *10.1* | *0.0* | |
| Difference: | | | | | | 7.1 | 1.8 | 1.8 | 0.5 | -0.9 | 0.1 | -4.8 | |
| BlackRock Global Energy&Power Lag[3] | *$50,000* | *Global Infrastructure* | $ 18,135,143 | 0.5% | | 1.3 | 1.3 | 1.3 | -- | -- | -- | 10.3 | Jul-19 |
| *MSCI ACWI +2%Lag* | | | | | | *4.8* | *15.3* | *15.3* | *--* | *--* | *--* | *19.7* | |
| Difference: | | | | | | -3.5 | -14.0 | -14.0 | -- | -- | -- | -9.4 | |
| Ocean Avenue II Lag[3] | *$40,000* | *PE Buyout FOF* | $ 35,066,163 | 0.9% | | 25.0 | 25.0 | 25.0 | 39.4 | 18.9 | 21.9 | 13.3 | May-13 |
| *MSCI ACWI +2% Lag* | | | | | | *4.8* | *15.3* | *15.3* | *19.1* | *13.1* | *11.4* | *10.6* | |
| Difference: | | | | | | 20.2 | 9.7 | 9.7 | 20.3 | 5.8 | 10.5 | 2.7 | |
| Ocean Avenue III Lag[3] | *$50,000* | *PE Buyout FOF* | $ 55,271,738 | 1.5% | | 11.7 | 11.7 | 11.7 | 9.0 | 19.5 | -- | 21.0 | Apr-16 |
| *MSCI ACWI +2% Lag* | | | | | | *4.8* | *15.3* | *15.3* | *19.1* | *13.1* | *--* | *11.6* | |
| Difference: | | | | | | 6.9 | -3.6 | -3.6 | -10.1 | 6.4 | -- | 9.4 | |
| Ocean Avenue IV Lag[3] | *$50,000* | *PE Buyout* | $ 28,272,300 | 0.7% | | 20.9 | 20.9 | 20.9 | -- | -- | -- | 38.3 | Dec-19 |
| *MSCI ACWI +2% Lag* | | | | | | *4.8* | *15.3* | *15.3* | *--* | *--* | *--* | *24.3* | |
| Difference: | | | | | | 16.1 | 5.6 | 5.6 | -- | -- | -- | 14.0 | |
| Morgan Creek III Lag[3] | *$10,000* | *Multi-Strat FOF* | $ 6,099,653 | 0.2% | | 8.3 | 8.3 | 8.3 | 3.1 | -5.1 | 0.6 | -1.6 | Feb-15 |
| *MSCI ACWI +2% Lag* | | | | | | *4.8* | *15.3* | *15.3* | *19.1* | *13.1* | *11.4* | *11.1* | |
| Difference: | | | | | | 3.5 | -7.0 | -7.0 | -16.0 | -18.2 | -10.8 | -12.7 | |
| Morgan Creek V Lag[3] | *$12,000* | *Multi-Strat FOF* | $ 9,497,816 | 0.2% | | 0.0 | 0.0 | 0.0 | 1.7 | 7.9 | 9.0 | 12.1 | Jun-13 |
| *MSCI ACWI +2% Lag* | | | | | | *4.8* | *15.3* | *15.3* | *19.1* | *13.1* | *11.4* | *10.6* | |
| Difference: | | | | | | -4.8 | -15.3 | -15.3 | -17.4 | -5.2 | -2.4 | 1.5 | |
| Morgan Creek VI Lag[3] | *$20,000* | *Multi-Strat FOF* | $ 25,332,027 | 0.7% | | 9.6 | 9.6 | 9.6 | 17.8 | 15.1 | 12.7 | 7.5 | Feb-15 |
| *MSCI ACWI +2% Lag* | | | | | | *4.8* | *15.3* | *15.3* | *19.1* | *13.1* | *11.4* | *11.1* | |
| Difference: | | | | | | 4.8 | -5.7 | -5.7 | -1.3 | 2.0 | 1.3 | -3.6 | |
| Opportunistic Private Real Estate | | | | | | | | | | | | | |
| Greenfield V[3] | *$30,000* | *Opportunistic Pvt. RE* | $ 227,471 | 0.0% | | -2.0 | -2.0 | -2.0 | -26.0 | -11.0 | -4.8 | -3.2 | Jul-08 |
| *NCREIF ODCE + 1% Lag Blend* | | | | | | *2.1* | *2.1* | *2.1* | *4.4* | *8.2* | *9.5* | *8.2* | |
| Difference: | | | | | | -4.1 | -4.1 | -4.1 | -30.4 | -19.2 | -14.3 | -11.4 | |
| Greenfield VI[3] | *$20,000* | *Opportunistic Pvt. RE* | $ 172,521 | 0.0% | | -24.9 | -24.9 | -24.9 | -37.4 | -35.5 | -24.2 | -9.9 | Apr-12 |
| *NCREIF ODCE + 1% Lag Blend* | | | | | | *2.1* | *2.1* | *2.1* | *4.4* | *8.2* | *9.5* | *12.5* | |
| Difference: | | | | | | -27.0 | -27.0 | -27.0 | -41.8 | -43.7 | -33.7 | -22.4 | |
| Greenfield VII[3] | *$19,100* | *Opportunistic Pvt. RE* | $ 9,627,532 | 0.3% | | 11.2 | 11.2 | 11.2 | 8.5 | 11.9 | 12.7 | 12.6 | Oct-14 |
| *NCREIF ODCE + 1% Lag Blend* | | | | | | *2.1* | *2.1* | *2.1* | *4.4* | *8.2* | *9.5* | *11.4* | |
| Difference: | | | | | | 9.1 | 9.1 | 9.1 | 4.1 | 3.7 | 3.2 | 1.2 | |
| Grandview[3] | *$30,000* | *Opportunistic Pvt. RE* | $ 19,232,146 | 0.5% | | 4.5 | 4.5 | 4.5 | 20.9 | 6.7 | -- | 6.7 | Apr-18 |
| *NCREIF ODCE + 1% Lag Blend* | | | | | | *2.1* | *2.1* | *2.1* | *4.4* | *8.2* | *9.5* | *8.5* | |
| Difference: | | | | | | 2.4 | 2.4 | 2.4 | 16.5 | -- | -- | -1.8 | |
| Miller Global Fund VI[3] | *$30,000* | *Opportunistic Pvt. RE* | $ 392,542 | 0.0% | | 9.4 | 9.4 | 9.4 | -67.1 | -29.5 | -15.2 | -6.5 | May-08 |
| *NCREIF ODCE + 1% Lag Blend* | | | | | | *2.1* | *2.1* | *2.1* | *4.4* | *8.2* | *9.5* | *8.2* | |
| Difference: | | | | | | 7.3 | 7.3 | 7.3 | -71.5 | -37.7 | -24.7 | -14.7 | |
| Miller Global Fund VII[3] | *$15,000* | *Opportunistic Pvt. RE* | $ 273,461 | 0.0% | | 16.1 | 16.1 | 16.1 | 15.1 | -5.3 | 0.3 | 24.8 | Dec-12 |
| *NCREIF ODCE + 1% Lag Blend* | | | | | | *2.1* | *2.1* | *2.1* | *4.4* | *8.2* | *9.5* | *11.8* | |
| Difference: | | | | | | 14.0 | 14.0 | 14.0 | 10.7 | -13.5 | -9.2 | 13.0 | |

[1] Returns are preliminary and are finalized during each quarterly reporting cycle. Monthly returns since previous quarter are provided by the managers. Market values are provided by Northern Trust.

[2] Total class returns are as of 3/31/21, and lagged 1 quarter.

[3] Manager returns are as of 3/31/21, and lagged 1 quarter. Since Inception date reflects one quarter lag.

[4] 4/1/20 to present benchmark is **32%** MSCI ACWI IMI, **10%** BB Aggregate Bond Index, **17%** *50%* BB High Yield/*50%* S&P Leveraged Loans, 6% NCREIF ODCE +1% lag; **10%** T-Bill +4%, **10%** MSCI ACWI +2%, **15%** CRO Custom Benchmark. Prior to 4/1/20 benchmark is legacy policy benchmark.

[5] 4/1/20 to present **75%** MSCI ACWI, **25%** BB Global Aggregate. Prior to 4/1/20 60% MSCI ACWI, 40% BB Global Aggregate.

# San Joaquin County Employees Retirement Association (SJCERA)

## Preliminary Monthly Flash Report (Net)[1] June 2021

| | Commitment ($000) | Sub-Segment | Market Value | Physical % of Total | Policy Target % | 1-Mo | 3-Mos | YTD | 1-Yr | 3-Yrs | 5-Yrs | SI Return | SI Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [6] Manager returns are as of 6/30/20, and lagged 1 quarter. | | | | | | | | | | | | | |
| Opportunistic Private Real Estate (continued) | | | | | | | | | | | | | |
| Walton Street V[3] | *$30,000* | *Opportunistic Pvt. RE* | $ 2,060,130 | 0.1% | | 0.8 | 0.8 | 0.8 | -8.7 | -15.0 | -8.6 | -4.3 | Nov-06 |
| *NCREIF ODCE + 1% Lag Blend* | | | | | | *2.1* | *2.1* | *2.1* | *4.4* | *8.2* | *9.5* | *9.3* | |
| Difference: | | | | | | -1.3 | -1.3 | -1.3 | -13.1 | -23.2 | -18.1 | -13.6 | |
| Walton Street VI[3] | *$15,000* | *Opportunistic Pvt. RE* | $ 4,695,403 | 0.1% | | -0.8 | -0.8 | -0.8 | -11.0 | -2.5 | -1.4 | 6.8 | Jul-09 |
| *NCREIF ODCE + 1% Lag Blend* | | | | | | *2.1* | *2.1* | *2.1* | *4.4* | *8.2* | *9.5* | *11.1* | |
| Difference: | | | | | | -2.9 | -2.9 | -2.9 | -15.4 | -10.7 | -10.9 | -4.3 | |
| Value-Added Private Real Estate | | | | | | | | | | | | | |
| AG Core Plus IV[3] | *$20,000* | *Value-Added Pvt. RE* | $ 19,412,416 | 0.5% | | 3.8 | 3.8 | 3.8 | 6.1 | 8.9 | 7.6 | 4.6 | Sep-15 |
| *NCREIF ODCE + 1% Lag Blend* | | | | | | *2.1* | *2.1* | *2.1* | *4.4* | *8.2* | *9.5* | *10.6* | |
| Difference: | | | | | | 1.7 | 1.7 | 1.7 | 1.7 | 0.7 | -1.9 | -6.0 | |
| Almanac Realty VI[3] | *$30,000* | *Value-Added Pvt. RE* | $ 3,574,816 | 0.1% | | -6.5 | -6.5 | -6.5 | -32.9 | -13.0 | -5.5 | 22.5 | Feb-13 |
| *NCREIF ODCE + 1% Lag Blend* | | | | | | *2.1* | *2.1* | *2.1* | *4.4* | *8.2* | *9.5* | *12.5* | |
| Difference: | | | | | | -8.6 | -8.6 | -8.6 | -37.3 | -21.2 | -15.0 | 10.0 | |
| Berkeley Partners Fund V, LP | *$40,000* | *Value-Added Pvt. RE* | $ 3,742,531 | 0.1% | | 6.7 | 6.7 | 6.7 | -- | -- | -- | 0.0 | Aug-20 |
| *NCREIF ODCE + 1% Lag Blend* | | | | | | *2.1* | *2.1* | *2.1* | *--* | *--* | *--* | *0.0* | |
| Difference: | | | | | | 4.6 | 4.6 | 4.6 | -- | -- | -- | 0.0 | |
| Stockbridge RE III[3] | *$45,000* | *Value-Added Pvt. RE* | $ 35,878,361 | 0.9% | | 4.4 | 4.4 | 4.4 | 8.1 | -- | -- | 2.8 | Jul-18 |
| *NCREIF ODCE + 1% Lag Blend* | | | | | | *2.1* | *2.1* | *2.1* | *4.4* | *--* | *--* | *7.8* | |
| Difference: | | | | | | 2.3 | 2.3 | 2.3 | 3.7 | -- | -- | -5.0 | |
| **Traditional Growth[2]** | | | **$ 1,453,244,088** | **38.2%** | **32.0%** | **1.1** | **7.6** | **13.6** | **38.1** | **11.9** | **13.3** | **9.7** | **Jan-95** |
| *MSCI ACWI IMI Net* | | | | | | *1.2* | *7.2* | *12.7* | *40.9* | *15.6* | *15.5* | *8.4* | |
| Difference: | | | | | | -0.1 | 0.4 | 0.9 | -2.8 | -3.7 | -2.2 | 1.3 | |
| Global Equity | | | $ 1,405,775,134 | 37.0% | | | | | | | | | |
| Northern Trust MSCI World IMI | | *All Cap Global* | $ 1,255,022,635 | 33.0% | | 1.2 | 7.5 | 13.5 | -- | -- | -- | 26.5 | Sep-20 |
| *MSCI World IMI Net* | | | | | | *1.3* | *7.4* | *13.3* | *--* | *--* | *--* | *26.1* | |
| Difference: | | | | | | -0.1 | 0.1 | 0.2 | -- | -- | -- | 0.4 | |
| SJCERA Transition | | *All Cap Global* | $ 3,402 | 0.0% | | NM | NM | NM | -- | -- | -- | NM | Jul-20 |
| Emerging Markets | | | $ 150,749,097 | | | | | | | | | | |
| GQG Active Emerging Markets | | *Emerging Markets* | $ 68,790,339 | 1.8% | | -0.6 | 5.4 | 4.2 | -- | -- | -- | 23.6 | Aug-20 |
| *MSCI Emerging Markets Index Net* | | | | | | *0.2* | *5.0* | *7.4* | *--* | *--* | *--* | *29.3* | |
| Difference: | | | | | | -0.8 | 0.4 | -3.2 | -- | -- | -- | -5.7 | |
| PIMCO RAE Fundamental Emerging Markets | | *Emerging Markets* | $ 81,958,758 | 2.2% | | 0.1 | 8.3 | 20.7 | 57.2 | 9.5 | 12.5 | 5.9 | Apr-07 |
| *MSCI Emerging Markets Index* | | | | | | *0.2* | *5.1* | *7.6* | *41.4* | *11.7* | *13.4* | *5.6* | |
| Difference: | | | | | | -0.1 | 3.2 | 13.1 | 15.8 | -2.2 | -0.9 | 0.3 | |
| REITS | | | $ 47,468,954 | 1.2% | | | | | | | | | |
| Invesco All Equity REIT | | *Core US REIT* | $ 47,468,954 | 1.2% | | 2.9 | 12.4 | 22.0 | 27.5 | 9.8 | 7.0 | 9.4 | Aug-04 |
| *FTSE NAREIT Equity Index* | | | | | | *2.6* | *12.0* | *22.0* | *38.0* | *10.1* | *6.3* | *9.1* | |
| Difference: | | | | | | 0.3 | 0.4 | 0.0 | -10.5 | -0.3 | 0.7 | 0.3 | |

[1] Returns are preliminary and are finalized during each quarterly reporting cycle. Monthly returns since previous quarter are provided by the managers. Market values are provided by Northern Trust.

[2] MSCI ACWI IMI Net as of 4/1/2020, MSCI ACWI Gross prior.

[3] Manager returns are as of 3/31/21, and lagged 1 quarter. Since Inception date reflects one quarter lag.

NM = Returns not meaningful

# San Joaquin County Employees Retirement Association (SJCERA)

## Preliminary Monthly Flash Report (Net)[1] June 2021

| | Commitment ($000) | Sub-Segment | Market Value | Physical % of Total | Policy Target % | 1-Mo | 3-Mos | YTD | 1-Yr | 3-Yrs | 5-Yrs | SI Return | SI Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Stabilized Growth** | | | $ 1,144,575,969 | 30.1% | 33.0% | 1.3 | 4.2 | 4.3 | 11.8 | 7.7 | 7.0 | 4.1 | Jan-05 |
| **Risk Parity** | | | $ 432,362,434 | 11.4% | | 1.2 | 8.4 | 5.7 | 20.3 | 10.0 | 8.1 | 5.3 | |
| *T-Bill +4%* | | | | | | *0.3* | *1.0* | *2.0* | *4.1* | *5.4* | *5.2* | *4.6* | |
| Difference: | | | | | | 0.9 | 7.4 | 3.7 | 16.2 | 4.6 | 2.9 | 0.7 | |
| Bridgewater All Weather | | *Risk Parity* | $ 210,874,915 | 5.6% | | 0.8 | 9.0 | 5.9 | 19.3 | 8.8 | 7.8 | 5.8 | Mar-12 |
| *T-Bill +4%* | | | | | | *0.3* | *1.0* | *2.0* | *4.1* | *5.4* | *5.2* | *5.5* | |
| Difference: | | | | | | 0.5 | 8.0 | 3.9 | 15.2 | 3.4 | 2.6 | 0.3 | |
| PanAgora Diversified Risk Multi-Asset | | *Risk Parity* | $ 221,487,519 | 5.8% | | 1.6 | 7.8 | 5.4 | 21.2 | 11.2 | -- | 9.3 | Apr-16 |
| *T-Bill +4%* | | | | | | *0.3* | *1.0* | *2.0* | *4.1* | *5.4* | -- | *5.2* | |
| Difference: | | | | | | 1.3 | 6.8 | 3.4 | 17.1 | 5.8 | -- | 4.1 | |
| **Liquid Credit** | | | $ 236,460,537 | 6.2% | | 0.6 | 2.0 | 2.3 | 10.5 | 4.7 | 4.6 | 2.3 | Oct-06 |
| *50% BB High Yield, 50% S&P/LSTA Leveraged Loans* | | | | | | *0.9* | *2.1* | *3.5* | *13.5* | *5.9* | *6.2* | *6.0* | |
| Difference: | | | | | | -0.3 | -0.1 | -1.2 | -3.0 | -1.2 | -1.6 | -3.7 | |
| Neuberger Berman | | *Global Credit* | $ 106,127,352 | 2.8% | | 0.7 | 2.5 | 2.2 | 12.0 | -- | -- | 6.4 | Feb-19 |
| *33% ICE BofA HY Constrained, 33% S&P/LSTA LL, 33% JPM EMBI Glbl Div.* | | | | | | *0.8* | *2.7* | *2.1* | *11.5* | -- | -- | *6.4* | |
| Difference: | | | | | | -0.1 | -0.2 | 0.1 | 0.5 | -- | -- | 0.0 | |
| Stone Harbor Absolute Return | | *Absolute Return* | $ 130,333,185 | 3.4% | | 0.6 | 1.5 | 2.3 | 9.4 | 4.2 | 4.1 | 3.0 | Oct-06 |
| *3-Month Libor Total Return* | | | | | | *0.0* | *0.1* | *0.1* | *0.3* | *1.6* | *1.5* | *1.4* | |
| Difference: | | | | | | 0.6 | 1.4 | 2.2 | 9.1 | 2.6 | 2.6 | 1.6 | |
| **Private Credit Lag[2]** | | | $ 312,839,916 | 8.2% | | 2.0 | 2.0 | 2.0 | 2.6 | 2.7 | 2.8 | 3.3 | |
| *50% BB High Yield, 50% S&P/LSTA Leveraged Loans* | | | | | | *1.6* | *5.1* | *5.1* | *5.1* | *5.1* | *6.9* | *6.0* | |
| Difference: | | | | | | 0.4 | -3.1 | -3.1 | -2.5 | -2.4 | -4.1 | -2.7 | |
| BlackRock Direct Lending Lag[3] | *$100,000* | *Direct Lending* | $ 28,964,813 | 0.8% | | 2.5 | 2.5 | 2.5 | | --- | --- | 9.9 | May-20 |
| *CPI +6% Annual Blend[5]* | | | | | | *0.6* | *1.5* | *1.5* | | --- | --- | *17.2* | |
| Difference: | | | | | | 1.9 | 1.0 | 1.0 | | --- | --- | -7.3 | |
| Mesa West RE Income III Lag[3] | *$45,000* | *Comm. Mortgage* | $ 1,647,839 | 0.0% | | -11.0 | -11.0 | -11.0 | -14.7 | -0.1 | 3.6 | 3.1 | Sep-13 |
| *CPI +6% Annual Blend[4]* | | | | | | *0.6* | *1.5* | *1.5* | *7.4* | *7.8* | *8.3* | *5.6* | |
| Difference: | | | | | | -11.6 | -12.5 | -12.5 | -22.1 | -7.9 | -4.7 | -2.5 | |
| Mesa West RE Income IV Lag[3] | *$75,000* | *Comm. Mortgage* | $ 44,370,217 | 1.2% | | 1.0 | 1.0 | 1.0 | 6.6 | 7.6 | -- | 7.3 | Mar-17 |
| *CPI +6% Annual Blend[4]* | | | | | | *0.6* | *1.5* | *1.5* | *7.4* | *7.8* | -- | *8.6* | |
| Difference: | | | | | | 0.4 | -0.5 | -0.5 | -0.8 | -0.2 | -- | -1.3 | |
| Crestline Opportunity II Lag[3] | *$45,000* | *Opportunistic* | $ 21,371,840 | 0.6% | | 0.6 | 0.6 | 0.6 | -4.4 | -2.3 | 2.2 | 3.9 | Nov-13 |
| *CPI +6% Annual Blend[4]* | | | | | | *0.6* | *1.5* | *1.5* | *7.4* | *7.8* | *8.3* | *8.5* | |
| Difference: | | | | | | 0.0 | -0.9 | -0.9 | -11.8 | -10.1 | -6.1 | -4.6 | |
| Davidson Kempner Distr Opp V Lag[3] | *$50,000* | *Opportunistic* | $ 15,788,095 | 0.0% | | 8.3 | -- | -- | -- | -- | -- | 31.1 | Oct-20 |
| *CPI +6% Annual Blend[4]* | | | | | | *0.6* | -- | -- | -- | -- | -- | *4.0* | |
| Difference: | | | | | | 7.7 | -- | -- | -- | -- | -- | 27.1 | |
| Oaktree Lag | *$50,000* | *Leveraged Direct* | $ 28,553,995 | 0.8% | | 3.7 | 3.7 | 3.7 | 16.0 | -- | -- | 9.6 | Mar-18 |
| *CPI +6% Annual Blend[6]* | | | | | | *0.6* | *1.5* | *1.5* | *4.9* | -- | -- | *8.0* | |
| Difference: | | | | | | 3.1 | 2.2 | 2.2 | 11.1 | -- | -- | 1.6 | |
| HPS EU Asset Value II Lag[3] | *$50,000* | *Direct Lending* | $ 5,676,507 | 0.1% | | 3.0 | 3.0 | -- | -- | -- | -- | -4.1 | Aug-20 |
| *CPI +6% Annual Blend[4]* | | | | | | *0.6* | *1.5* | -- | -- | -- | -- | *5.6* | |
| Difference: | | | | | | 2.4 | 1.5 | -- | -- | -- | -- | -9.7 | |
| Raven Opportunity II Lag[3] | *$45,000* | *Direct Lending* | $ 11,908,063 | 0.3% | | -0.4 | -0.4 | -0.4 | -13.1 | -3.2 | -3.2 | -4.6 | Aug-14 |
| *CPI +6% Annual Blend[4]* | | | | | | *0.6* | *1.5* | *1.5* | *7.4* | *7.8* | *8.3* | *8.4* | |
| Difference: | | | | | | -1.0 | -1.9 | -1.9 | -20.5 | -11.0 | -11.5 | -13.0 | |
| Raven Opportunity III Lag[3] | *$50,000* | *Direct Lending* | $ 48,837,036 | 1.3% | | 2.8 | 2.8 | 2.8 | 1.1 | 6.8 | -- | 2.2 | Nov-15 |
| *CPI +6% Annual Blend[4]* | | | | | | *0.6* | *1.5* | *1.5* | *7.4* | *7.8* | -- | *8.3* | |
| Difference: | | | | | | 2.2 | 1.3 | 1.3 | -6.3 | -1.0 | -- | -6.1 | |

[1] Returns are preliminary and are finalized during each quarterly reporting cycle. Monthly returns since previous quarter are provided by the managers. Market values are provided by Northern Trust.
[2] Total class returns are as of 3/31/21, and lagged 1 quarter.
[3] Manager returns are as of 3/31/21, and lagged 1 quarter. Since Inception date reflects one quarter lag.
[4] 9% Annual until 7/1/2018 then CPI +6% Annual thereafter.
[5] 50% BBgBC High Yield/50% S&P Leveraged Loan until 12/31/20 then CPI +6% Annual thereafter. Benchmark lagged one quarter.
[6] MSCI ACWI + 2% until 12/31/20 then CPI +6% Annual thereafter. Benchmark lagged one quarter

San Joaquin County Employees Retirement Association (SJCERA)

Preliminary Monthly Flash Report (Net)[1] June 2021

| | Commitment ($000) | Sub-Segment | Market Value | Physical % of Total | Policy Target % | 1-Mo | 3-Mos | YTD | 1-Yr | 3-Yrs | 5-Yrs | SI Return | SI Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Private Credit Lag (continued) | | | | | | | | | | | | | |
| **Medley Opportunity II Lag[3]** | *$50,000* | *Direct Lending* | $ 10,216,331 | 0.3% | | 4.1 | 4.1 | 4.1 | -14.2 | -13.3 | -7.7 | -1.9 | Jul-12 |
| *CPI +6% Annual Blend [4]* | | | | | | *0.6* | *1.5* | *1.5* | *7.4* | *7.8* | *8.3* | *8.6* | |
| Difference: | | | | | | 3.5 | 2.6 | 2.6 | -21.6 | -21.1 | -16.0 | -10.5 | |
| **White Oak Summit Peer Fund Lag[3]** | *$50,000* | *Direct Lending* | $ 46,281,870 | 1.2% | | 1.8 | 1.8 | 1.8 | 4.1 | 6.3 | -- | 7.1 | Mar-16 |
| *CPI +6% Annual Blend [4]* | | | | | | *0.6* | *1.5* | *1.5* | *7.4* | *7.8* | -- | *8.2* | |
| Difference: | | | | | | 1.2 | 0.3 | 0.3 | -3.3 | -1.5 | -- | -1.1 | |
| **White Oak Yield Spectrum Master V Lag[3]** | *$50,000* | *Direct Lending* | $ 49,223,310 | 1.3% | | 1.5 | 1.5 | --- | --- | --- | -- | -0.3 | Mar-20 |
| *CPI +6% Annual Blend [4]* | | | | | | *0.6* | *1.5* | --- | --- | --- | -- | *7.2* | |
| Difference: | | | | | | 0.9 | 0.0 | --- | --- | --- | -- | -7.5 | |
| **Principal US[3]** | *$25,000* | *Core Pvt. RE* | $ 34,326,840 | 0.9% | | 1.7 | 1.7 | 1.7 | 0.6 | 4.9 | 6.3 | 7.0 | Jan-16 |
| *NCREIF ODCE + 1% Lag Blend* | | | | | | *2.1* | *2.1* | *2.1* | *4.4* | *8.2* | *9.5* | *9.9* | |
| Difference: | | | | | | -0.4 | -0.4 | -0.4 | -3.8 | -3.3 | -3.2 | -2.9 | |
| **Prologis Logistics[3]** | *$35,000* | *Core Pvt. RE* | $ 78,473,587 | 2.1% | | 6.6 | 6.6 | 6.6 | 10.6 | 14.6 | 15.7 | 6.7 | Dec-07 |
| *NCREIF ODCE + 1% Lag Blend* | | | | | | *2.1* | *2.1* | *2.1* | *4.4* | *8.2* | *9.5* | *8.5* | |
| Difference: | | | | | | 4.5 | 4.5 | 4.5 | 6.2 | 6.4 | 6.2 | -1.8 | |
| **RREEF America II[3]** | *$45,000* | *Core Pvt. RE* | $ 50,112,656 | 1.3% | | 0.8 | 0.8 | 0.8 | 1.7 | 5.1 | -- | 6.5 | Jul-16 |
| *NCREIF ODCE + 1% Lag Blend* | | | | | | *2.1* | *2.1* | *2.1* | *4.4* | *8.2* | *9.5* | *9.3* | |
| Difference: | | | | | | -1.3 | -1.3 | -1.3 | -2.7 | -3.1 | -- | -2.8 | |
| **Diversifying Strategies** | | | **$ 795,153,507** | **20.9%** | **25.0%** | **0.9** | **2.9** | **1.1** | **1.5** | **4.3** | **2.5** | **6.4** | **Oct-90** |
| **Principal Protection** | | | **$ 329,953,201** | **8.7%** | **10.0%** | **0.7** | **1.9** | **0.2** | **4.1** | **4.2** | **3.6** | **6.4** | Oct-90 |
| *BB Aggregate Bond Index* | | | | | | *0.7* | *1.8* | *-1.6* | *-0.3* | *5.3* | *3.0* | *6.0* | |
| Difference: | | | | | | 0.0 | 0.1 | 1.8 | 4.4 | -1.1 | 0.6 | 0.4 | |
| **Dodge & Cox** | | *Core Fixed Income* | $ 167,519,774 | 4.4% | | 0.8 | 2.2 | -0.5 | 3.5 | 6.6 | 4.7 | 7.2 | Oct-90 |
| *BB Aggregate Bond Index* | | | | | | *0.7* | *1.8* | *-1.6* | *-0.3* | *5.3* | *3.0* | *6.0* | |
| Difference: | | | | | | 0.1 | 0.4 | 1.1 | 3.8 | 1.3 | 1.7 | 1.2 | |
| **DoubleLine Capital** | | *MBS* | $ 113,072,959 | 3.0% | | 0.3 | 1.5 | 1.6 | 4.6 | 4.6 | 3.8 | 5.1 | Feb-12 |
| *BB Aggregate Bond Index* | | | | | | *0.7* | *1.8* | *-1.6* | *-0.3* | *5.3* | *3.0* | *3.0* | |
| Difference: | | | | | | -0.4 | -0.3 | 3.2 | 4.9 | -0.7 | 0.8 | 2.1 | |
| **SJ Principal Protection** | | *Int Core Bond ETF* | $ 49,360,468 | 1.3% | | 0.9 | 1.9 | --- | --- | --- | --- | --- | Jan-21 |
| *BB Aggregate Bond Index* | | | | | | *0.7* | *1.8* | --- | --- | --- | --- | --- | |
| Difference: | | | | | | 0.2 | 0.1 | --- | --- | --- | --- | --- | |

[1] Returns are preliminary and are finalized during each quarterly reporting cycle. Monthly returns since previous quarter are provided by the managers. Market values are provided by Northern Trust.

[2] Total class returns are as of 3/31/21, and lagged 1 quarter.

[3] Manager returns are as of 3/31/21, and lagged 1 quarter. Since Inception date reflects one quarter lag.

[4] 9% Annual until 7/1/2018 then CPI +6% Annual thereafter.

San Joaquin County Employees Retirement Association (SJCERA)

Preliminary Monthly Flash Report (Net)[1] June 2021

| | Commitment ($000) | Sub-Segment | Market Value | Physical % of Total | Policy Target % | 1-Mo | 3-Mos | YTD | 1-Yr | 3-Yrs | 5-Yrs | SI Return | SI Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Crisis Risk Offset** | | | **$ 465,200,306** | **12.2%** | **15.0%** | **1.1** | **3.6** | **1.8** | **-0.2** | **4.3** | **1.7** | **6.6** | **Jan-05** |
| *CRO Custom Benchmark[2]* | | | | | | *0.9* | *3.7* | *0.2* | *2.7* | *6.4* | *3.4* | *5.4* | |
| Difference: | | | | | | 0.2 | -0.1 | 1.6 | -2.9 | -2.1 | -1.7 | 1.2 | |
| Long Duration | | | $ 151,372,783 | 4.0% | | 3.9 | 6.3 | -7.1 | -9.4 | 7.7 | -- | 3.8 | |
| *BB US Long Duration Treasuries* | | | | | | *3.6* | *6.5* | *-7.9* | *-10.6* | *8.0* | -- | *4.6* | |
| Difference: | | | | | | 0.3 | -0.2 | 0.8 | 1.2 | -0.3 | -- | -0.8 | |
| Dodge & Cox Long Duration | | *Long Duration* | $ 151,372,783 | 4.0% | | 3.9 | 6.3 | -7.1 | -9.4 | 7.7 | -- | 3.8 | Feb-16 |
| *BB US Long Duration Treasuries* | | | | | | *3.6* | *6.5* | *-7.9* | *-10.6* | *8.0* | -- | *4.6* | |
| Difference: | | | | | | 0.3 | -0.2 | 0.8 | 1.2 | -0.3 | -- | -0.8 | |
| Systematic Trend Following | | | $ 191,335,534 | 5.0% | | -1.3 | 4.8 | 12.0 | 25.8 | 6.1 | -0.3 | 8.5 | |
| *BTOP50 Index* | | | | | | *-1.2* | *3.3* | *6.1* | *14.6* | *5.6* | *1.4* | *4.5* | |
| Difference: | | | | | | -0.1 | 1.5 | 5.9 | 11.2 | 0.5 | -1.7 | 4.0 | |
| Mt. Lucas Managed Futures - Cash | | *Systematic Trend Following* | $ 99,143,463 | 2.6% | | -0.4 | 7.9 | 17.7 | 32.7 | 5.9 | -1.7 | 8.1 | Jan-05 |
| *BTOP50 Index* | | | | | | *-1.2* | *3.3* | *6.1* | *14.6* | *5.6* | *1.4* | *4.5* | |
| Difference: | | | | | | 0.8 | 4.6 | 11.6 | 18.1 | 0.3 | -3.1 | 3.6 | |
| Graham Tactical Trend | | *Systematic Trend Following* | $ 92,192,071 | 2.4% | | -2.3 | 1.6 | 6.5 | 19.1 | 6.0 | -- | 1.2 | Apr-16 |
| *SG Trend Index* | | | | | | *-2.2* | *3.3* | *7.4* | *15.1* | *6.9* | -- | *1.4* | |
| Difference: | | | | | | -0.1 | -1.7 | -0.9 | 4.0 | -0.9 | -- | -0.2 | |
| Alternative Risk Premia | | | $ 122,491,989 | 3.2% | | 1.8 | -1.3 | -0.5 | -16.6 | -2.9 | 0.4 | 7.0 | |
| *5% Annual* | | | | | | *0.4* | *1.2* | *2.5* | *5.0* | *5.0* | *5.0* | *6.3* | |
| Difference: | | | | | | 1.4 | -2.5 | -3.0 | -21.6 | -7.9 | -4.6 | 0.7 | |
| AQR Style Premia | | *Alternative Risk Premia* | $ 28,694,807 | 0.8% | | -2.8 | -3.2 | 17.8 | 12.7 | -10.3 | -- | -5.2 | May-16 |
| *5% Annual* | | | | | | *0.4* | *1.2* | *2.5* | *5.0* | *5.0* | -- | *5.0* | |
| Difference: | | | | | | -3.2 | -4.4 | 15.3 | 7.7 | -15.3 | -- | -10.2 | |
| PE Diversified Global Macro | | *Alternative Risk Premia* | $ 33,838,339 | 0.9% | | 4.4 | -8.0 | -9.2 | -35.5 | -6.0 | -- | -3.9 | Jun-16 |
| *5% Annual* | | | | | | *0.4* | *1.2* | *2.5* | *5.0* | *5.0* | -- | *5.0* | |
| Difference: | | | | | | 4.0 | -9.2 | -11.7 | -40.5 | -11.0 | -- | -8.9 | |
| Lombard Odier | | *Alternative Risk Premia* | $ 59,958,843 | 1.6% | | 2.7 | 4.0 | -2.4 | -12.9 | -- | -- | -3.8 | Jan-19 |
| *5% Annual* | | | | | | *0.4* | *1.2* | *2.5* | *5.0* | -- | -- | *5.0* | |
| Difference: | | | | | | 2.3 | 2.8 | -4.9 | -17.9 | -- | -- | -8.8 | |
| **Cash[3]** | | | **$ 77,976,761** | **2.1%** | **0.0%** | **0.0** | **0.0** | **0.1** | **0.1** | **0.9** | **0.9** | **2.4** | **Sep-94** |
| *US T-Bills* | | | | | | *0.0* | *0.0* | *0.0* | *0.1* | *1.3* | *1.2* | *2.4* | |
| Difference: | | | | | | 0.0 | 0.0 | 0.1 | 0.0 | -0.4 | -0.3 | 0.0 | |
| Northern Trust STIF | | *Collective Govt. Short Term* | $ 70,917,848 | 1.9% | | 0.0 | 0.0 | 0.1 | 0.2 | 1.0 | 0.9 | 2.6 | Jan-95 |
| *US T-Bills* | | | | | | 0.0 | 0.0 | 0.0 | 0.1 | 1.3 | 1.2 | *2.4* | |
| Difference: | | | | | | 0.0 | 0.0 | 0.1 | 0.1 | -0.3 | -0.3 | 0.2 | |
| **Parametric Overlay[4]** | | *Cash Overlay* | **$ 49,866,871** | **1.3%** | | **0.0** | **0.0** | **0.0** | **--** | **--** | **--** | **0.0** | **Jan-20** |

[1] Returns are preliminary and are finalized during each quarterly reporting cycle. Monthly returns since previous quarter are provided by the managers. Market values are provided by Northern Trust.

[2] Benchmark is (1/3) BB Long Duration Treasuries, (1/3) BTOP50 Index, (1/3) 5% Annual.

[3] Includes lagged cash.

[5] **60%** MSCI ACWI, **40%** BB Universal

[4] Given daily cash movement returns may vary from those shown above.

MEKETA

INVESTMENT GROUP

# Economic and Market Update

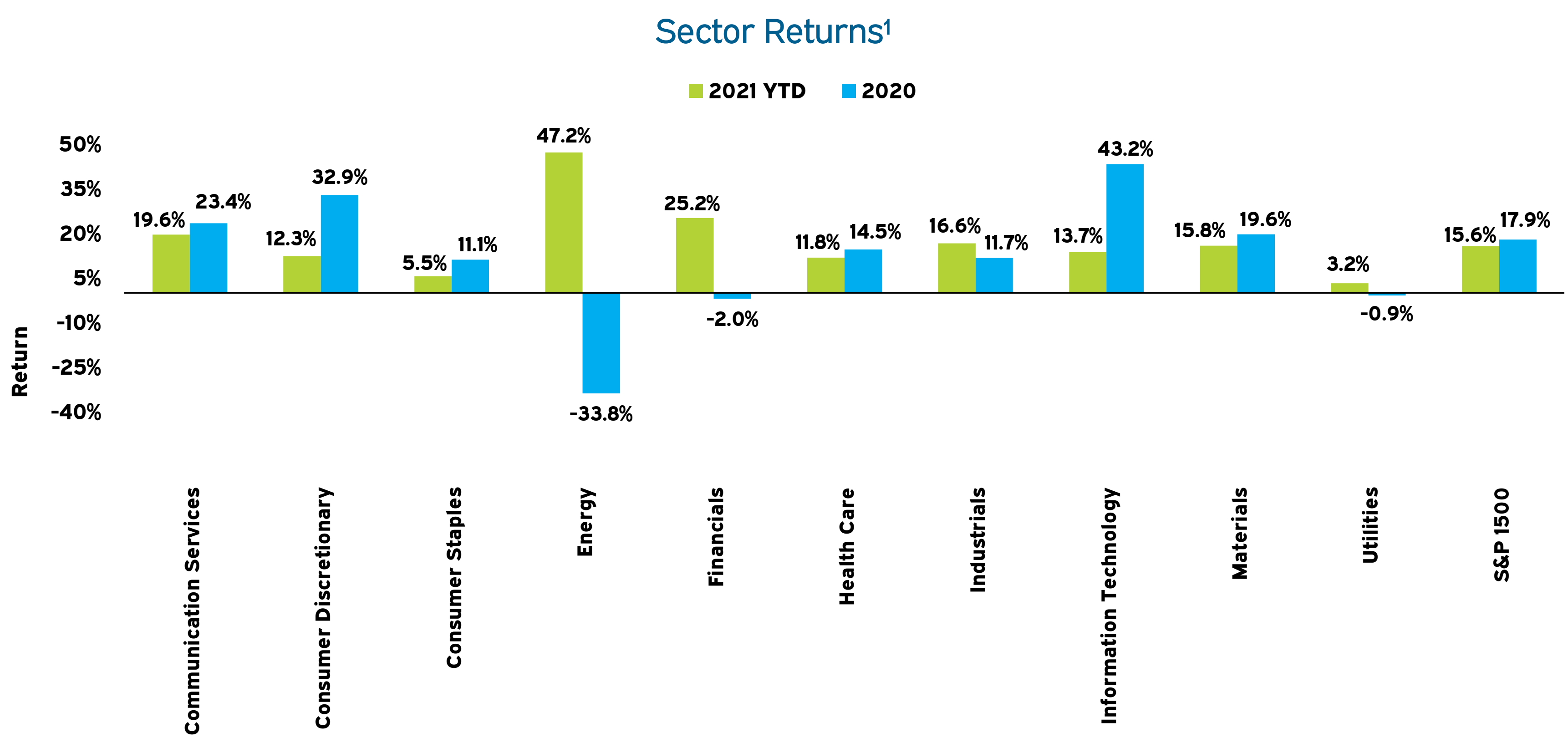
Data as of June 30, 2021

## Market Returns[1]

| Indices | June | YTD | 1 Year | 3 Year | 5 Year | 10 Year |
|---|---|---|---|---|---|---|
| S&P 500 | 2.3% | 15.3% | 40.8% | 18.7% | 17.7% | 14.8% |
| MSCI EAFE | -1.1% | 8.8% | 32.4% | 8.3% | 10.3% | 5.9% |
| MSCI Emerging Markets | 0.2% | 7.5% | 40.9% | 11.3% | 13.0% | 4.3% |
| MSCI China | 0.1% | 1.8% | 27.4% | 10.4% | 16.6% | 7.7% |
| Bloomberg Barclays Aggregate | 0.7% | -1.6% | -0.3% | 5.3% | 3.0% | 3.4% |
| Bloomberg Barclays TIPS | 0.6% | 1.7% | 6.5% | 6.5% | 4.2% | 3.4% |
| Bloomberg Barclays High Yield | 1.3% | 3.6% | 15.4% | 7.5% | 7.5% | 6.7% |
| 10-year US Treasury | 1.3% | -4.2% | -7.1% | 5.9% | 1.8% | 3.7% |
| 30-year US Treasury | 4.3% | -13.0% | -13.8% | 8.2% | 2.9% | 7.0% |

- So far this year, global risk assets continue to appreciate, leading to significant gains over the trailing year. This has largely been driven by record fiscal and monetary policy stimulus and positive developments with the COVID-19 vaccine.
- In June, Treasuries continued to recover, particularly longer dated issues, as inflation concerns declined.
- Equity markets had mixed results in June with the US leading the way.  A stronger US dollar and continued vaccine rollout struggles weighed on international equity markets.

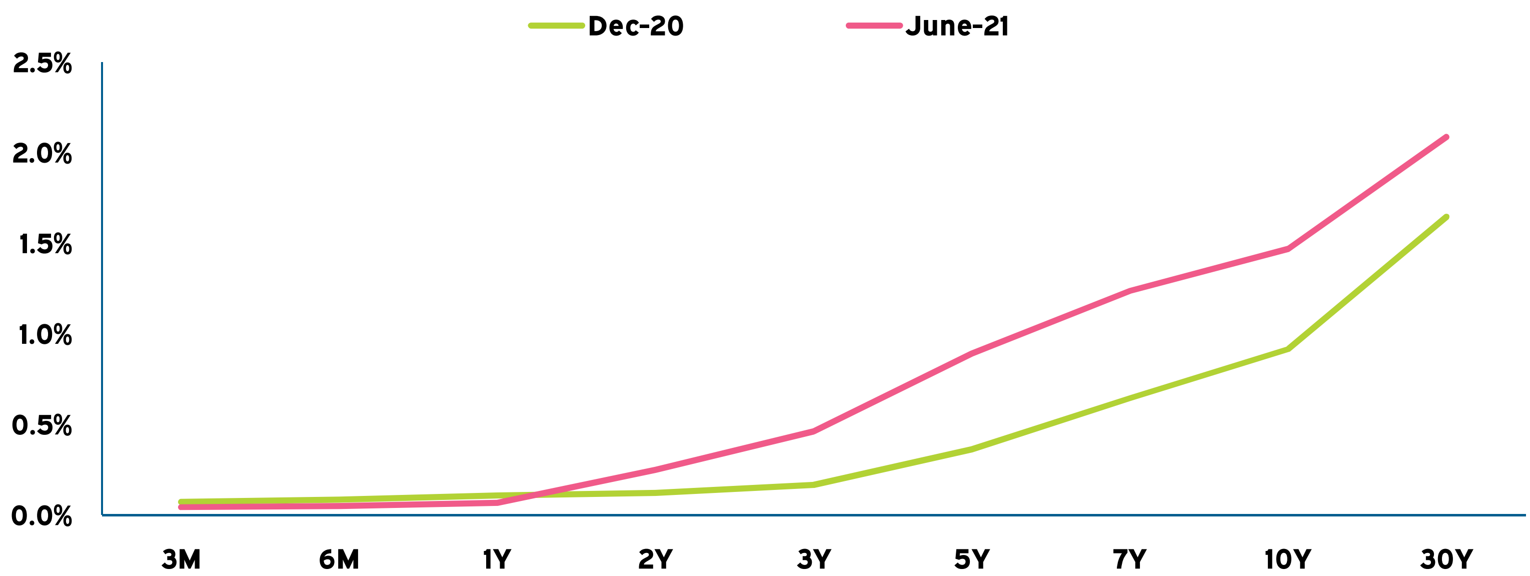
[1] Source: Investment Metrics and Bloomberg.  Data is as of June 30, 2021.




- Despite growth's recovery in June, cyclical sectors like energy and financials continue to lead the way in 2021, as some investors rotate out of stay-at-home focused companies in the technology sector as the economy reopens.

[1] Source: Bloomberg. Data is as of June 30, 2021.

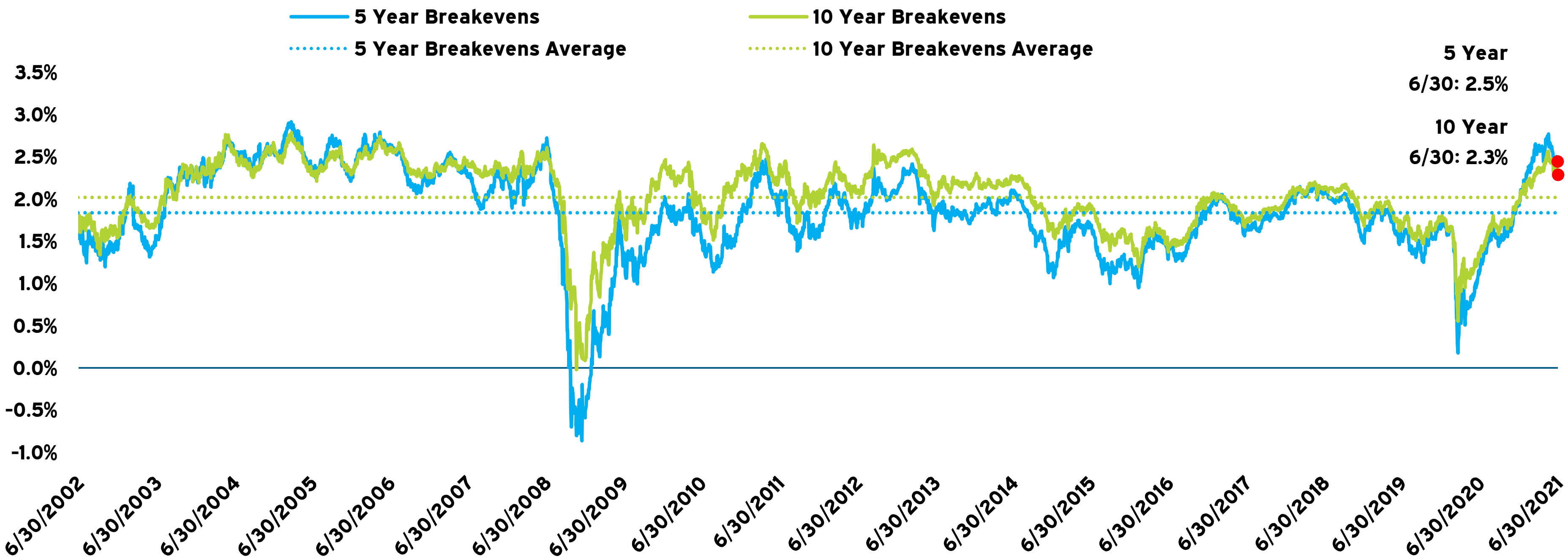
## US Yield Curve Steepens[1]




- Overall for 2021, the yield curve steepened on inflation fears related to gradual signs of economic improvement given the vaccine rollout.
- Shorter-dated rates have been largely unmoved given Fed policy, while longer-dated rates recently declined from their peak as investors consider whether inflationary pressures have topped.
- Looking ahead, the yield curve could resume its steepening if growth and inflation pressures build beyond current expectations. Alternatively, if the economy weakens, or if economic progress is simply accelerated versus the prior expectations, the flattening trend could continue.

[1] Source: Bloomberg. Data is as of June 30, 2021.

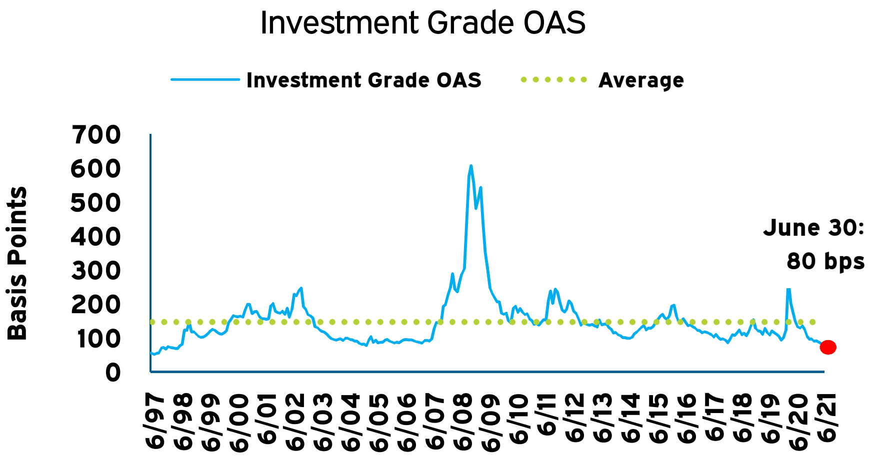
## Breakeven Inflation[1]

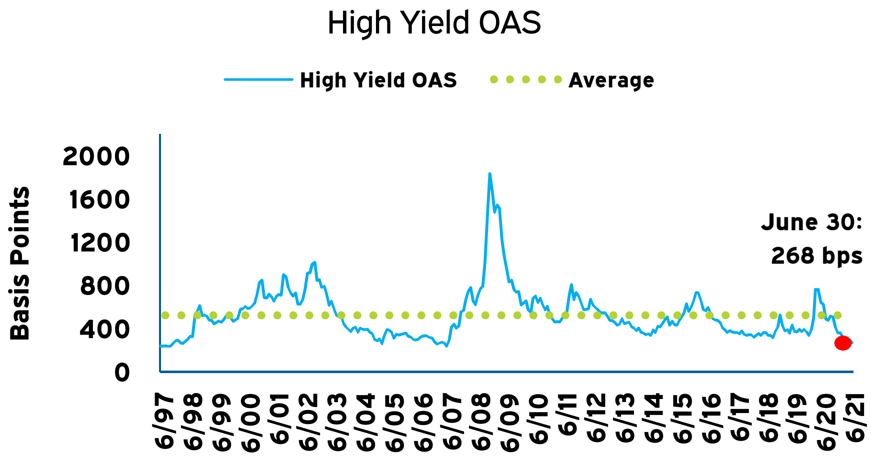



- In 2021, inflation expectations remain well above long-term averages, with the vaccine roll-out, high raw material prices, and expected additional fiscal stimulus as key drivers.
- Recently though, inflation expectations declined from their highs as base effects wane, growth forecasts moderate, and cost pressures slow.
- Looking forward, the track of economic growth and the inflationary effects of the unprecedented US fiscal response will be key issues. Additionally, changes to Fed policy focused on an average inflation target may play a role in the inflation market dynamics.

[1] Source: Bloomberg. Data is as of June 30, 2021.

## Credit Spreads (High Yield & Investment Grade)[1]

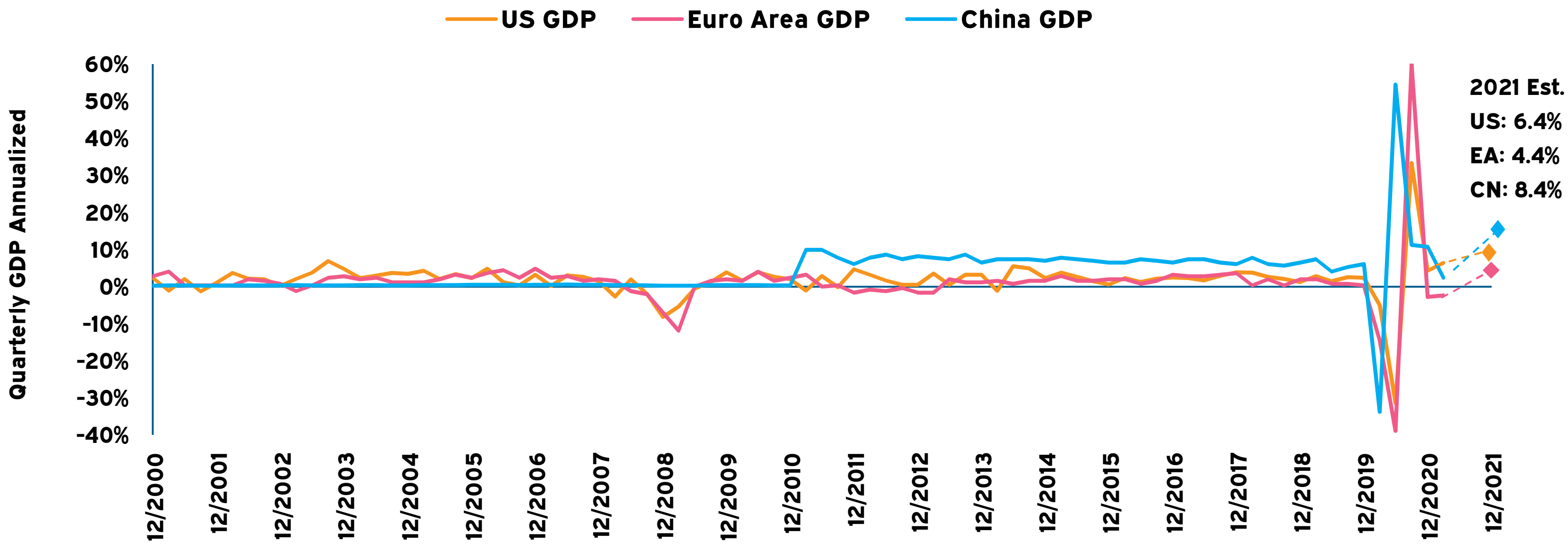



- Credit spreads (the spread above a comparable maturity Treasury) for investment-grade and high yield corporate debt continued to compress in June.
- Policy support and the search for yield in a low, and in some cases negative, rate environment have been key drivers in the decline in US credit spreads to below long-term averages, particularly for high yield.

[1] Source: Barclays Live. Data represents OAS and is as of June 30, 2021.

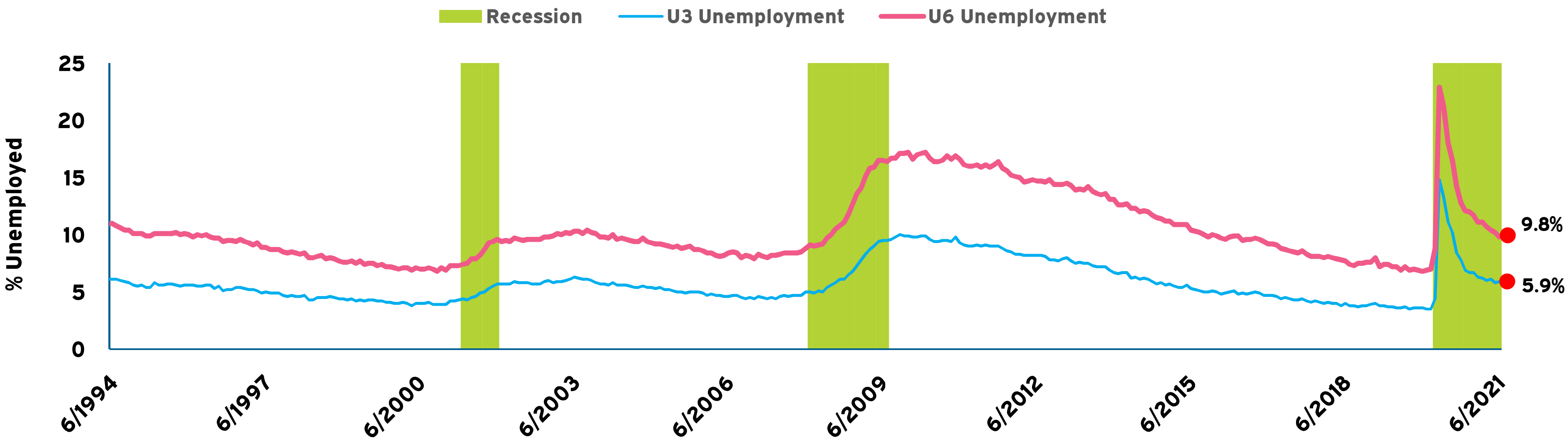
## GDP Data Shows Projected Improvements in 2021[1]




- Major economies experienced historic declines in growth during the second quarter of 2020, followed by record increases in the third quarter driven by pent-up demand from the lockdown measures earlier in the year.
- Looking forward, strong growth is expected in 2021 particularly for China, projected to grow at an impressive 8.4%, due in part to their ability to quickly control the virus and reopen their economy.
- The US is expected to grow faster than the euro area this year, with some growth pulled forward due to the success in distributing the vaccine.

[1] Source: Bloomberg, and IMF; Euro Area and China figures annualized by Meketa. Projections via April 2021 IMF World Economic Outlook and represent annual numbers.

## US Unemployment[1]




- The unemployment rate (U3) rose slightly in June from 5.8% to 5.9% and remains well above pre-pandemic levels, but far below the pandemic peak.
- The broader measure of unemployment (U6) that includes discouraged and underemployed workers continues to decline, but remains much higher at 9.8%.
- Pandemic related concerns, childcare issues, and a mismatch of skills and available jobs have all contributed to slack in the labor market.

[1] Source: Bloomberg. Data is as of June 30, 2021. Bars represent recessions as observed by the National Bureau of Economic Research.

## Disclaimers

These materials are intended solely for the recipient and may contain information that is not suitable for all investors. This presentation is provided by Meketa Investment Group ("Meketa") for informational purposes only and no statement is to be construed as a solicitation or offer to buy or sell a security, or the rendering of personalized investment advice. There is no agreement or understanding that Meketa will provide individual advice to any advisory client in receipt of this document. There can be no assurance the views and opinions expressed herein will come to pass. Any data and/or graphics presented herein is obtained from what are considered reliable sources; however, its delivery does not warrant that the information contained is correct. Any reference to a market index is included for illustrative purposes only, as an index is not a security in which an investment can be made and are provided for informational purposes only. For additional information about Meketa, please consult the Firm's Form ADV disclosure documents, the most recent versions of which are available on the SEC's Investment Adviser Public Disclosure website (www.adviserinfo.sec.gov) and may otherwise be made available upon written request.

MEKETA
INVESTMENT GROUP

# San Joaquin County Employees' Retirement Association (SJCERA)

## Core Fixed Income Finalists

## Table of Contents

# Background

## Background

- In the first quarter of 2021, an RFP was issued on behalf of SJCERA. As a result of the RFP, Meketa received a total of 47 responses for the Core Fixed Income mandate. Meketa evaluated the RFPs and analyzed performance, risk data, and other qualitative factors from each of the responding firms.
- Following the July 9, 2021 SJCERA board meeting, Meketa narrowed the field to finalist candidates to present to the SJCERA Investment Committee.
- This document provides a summary of the search process and highlights three strategies, listed in alphabetical order, for the Board's consideration.
  - Income Research and Management: Core Bond
  - Loomis Sayles: Core Disciplined Alpha
  - Wellington: Core Bond

## Introduction

Selecting strong and appropriate investment managers is a key determinant of the overall success of the Plan. Investment managers are expected to operate within a client's investment guidelines and are given a large degree of latitude to achieve the investment objective.

Manager selection is a nuanced process and requires extensive due diligence, When selecting prospective active managers, Meketa evaluates the following areas:

- Organization
- Investment Team
- Investment Philosophy
- Investment Process
- Investment Performance
- Management Fees

In addition, all managers are evaluated within the context of the Plan's overall investment policy.

# Manager Candidates

## Manager Overviews
## as of December 31, 2020

| | Income Research & Management | Loomis Sayles | Wellington Management Company |
|---|---|---|---|
| **Firm Location** | Boston, MA | Boston, MA | Boston, MA |
| **Firm Inception** | 1987 | 1926 | 1928 |
| **Ownership Structure** | Employee Owned | Wholly owned by Natixis | Limited Liability Partnership |
| **Strategy Name** | Core Bond | Core Disciplined Alpha | Core Bond |
| **Strategy Inception** | February 2010 | July 2010 | December 1984 |
| **AUM (Firm)** | \$88.3 billion | \$347.8 billion | \$1.3 trillion |
| **AUM (Strategy)** | \$14.3 billion | \$8.0 billion | \$48.2 billion |

# Income Research & Management

## Organization

- IR&M manages $88.3 billion in fixed income assets, mostly in separately managed accounts. The firm manages $14.3 billion in Core Fixed Income.
- As of January 5, 2021, the firm is approximately 90.2% employee owned, held across 64 employees. Two non-employee members of the Sommers family hold the remaining 9.8% of firm ownership. For estate planning purposes, John Sommers (Co-Founder, Chairperson Emeritus, and Board Member), transferred a majority of his shares to his son Jack Sommers (Co-Founder, Executive Chairperson, and Board Member) and his other two sons not involved in the business.
- The succession plan is to continue selling shares each year at a rate of about 2-3% of the firm but the shares are not coming from the founders - they are being issued as new shares in a process where all current shareholders (founders and everyone) get diluted in the process equally.

## Investment Team

- The investment team consists of 41 professionals, of which 14 are portfolio managers. Portfolio managers' involvement in the strategy varies depending on the extent that their sector expertise is utilized within portfolio guidelines. Since portfolio managers are not assigned specific portfolios or mandates, they have buy and sell authority within the bounds of their respective sectors. The team is supported by 18 analysts, who are responsible for credit analysis within their respective sectors.

## Income Research & Management (Continued)

### Investment Philosophy

- IR&M follows a team-oriented duration-neutral and key rate neutral approach focused on relative value emphasizing bottom-up security selection to drive sector selection. The team is benchmark aware with low tracking error.
- Security selection and relative value drive exposures and excess returns. IR&M uses no leverage, no derivatives, and no currency risk.

### Investment Process

- New ideas are sourced from new issues, secondary market activity, management meetings, conferences, or team conversations. Securities are then evaluated on an issue by issue basis, placing heavy emphasis on credit fundamentals, structural features, volatility, and liquidity.
- Analysts layer top-down analysis by going through different testing methodologies, giving special attention to downside risk under extreme scenarios. The team opts to maintain a duration and yield curve neutral stance, while setting overall sector exposure targets. Portfolio managers, who act as sector specialists, are responsible for determining sub-sector exposure that must fall within limit bands.
- Portfolio managers are ultimately responsible for buy and sell decisions within their respective areas of expertise.

# Loomis Sayles

## Organization

- Longfellow Loomis, Sayles & Company, L.P. (Loomis Sayles) is structured as a limited partnership. It is a wholly-owned subsidiary of Natixis Investment Managers, LLC. Natixis is headquartered in Boston, MA and has several investment management affiliates and other securities-related firms both in the US and around the world.
- Firm assets as of December 2020 were $347.8 billion with $8.0 billion in Core Disciplined Alpha.

## Investment Team

- Lynne Royer and Seth Timen co-head the Disciplined Alpha team. The team is run out of Orinda, CA and came over from Montgomery in 2009. The team is run more independently within Loomis and with a much more defensive style than other fixed income strategies.
- They are supported by 16 analysts and traders that cover specific investment grade sectors. Sector specialists on the Disciplined Alpha team are responsible for accessing the research of the Loomis Sayles credit research and securitized sector teams to help generate investment ideas.

## Investment Philosophy

- The investment philosophy of the Disciplined Alpha team is that artfully marrying proprietary fundamental and quantitative analysis with market intelligence can generate relative value insights that, when adjusted for risk, help identify compelling investment opportunities across the investment grade fixed income universe.

## Loomis Sayles (Continued)

### Investment Process

- The Disciplined Alpha team benefits from the robust research efforts across Loomis Sayles. The Disciplined Alpha team overlays its relative value decision-making and risk management system onto the firm's extensive research in pursuit of its objective of outperforming its benchmark while maintaining portfolio risk at levels that are comparable to the benchmark.
- The Disciplined Alpha team seeks to harvest value through continuous rotation into best opportunities. The team manages diversified portfolios by selecting primarily benchmark-like securities, taking little duration or yield curve risk.
- Security selection is expected to be the primary source of excess returns and analysis and measurement of risk are important components of the investment strategy. The Disciplined Alpha risk management tools are embedded throughout the security selection process.

## Wellington Management Company

### Organization

- Wellington Management, headquartered in Boston, MA, traces its history back to the founding of Wellington Fund in 1928.
- Wellington Management Group (WMG) is a limited liability partnership, privately held by 177 partners who are all fully active in the business of the firm with no external entities with any ownership interest in the firm.
- Wellington had $1.3 trillion in assets under management as of December 31, 2020, of which $48.2 billion are in Core Bond strategies.

### Investment Team

- Core Bond is run by two partners of the firm, Joe Marvan and Campe Goodman, who are also members of this Broad Markets team of PMs. Sector specialists manage each sector based on fundamental bottom-up research in each sector (Governments, MBS, CMBS, IG Credit, rates, inflation). The Core Bond PMs work with the Sector Specialist PM and all analysts to construct and monitor the portfolio.
- There is no CIO. The Broad Markets team decides upon the broad strategy such as allocating risk to sector and duration. Broad Markets has four PMs and an Investment Director that make broad top down macro decisions based on the economy, central bank policy, rates, etc. Portfolio managers that run other strategies usually are in agreement with their views but they do not have to take direction from them and may run independently.

## Wellington Management Company (Continued)

### Investment Team (Continued)

- There are 40 credit analysts and the fixed income team leverages the 51 industry equity analysts, often sitting in on company meetings together to get a management team to address both the equity and balance sheet concerns. This large pool of analysts work on various strategies across the firm.

### Investment Philosophy and Process

- The Core Bond strategy is managed in a benchmark-relative style that invests across the major sectors of the domestic, investment grade bond market. The strategy seeks excess returns of 25-75 bps with tracking error of 50-150 bps through AA/A quality within +/- 1.0 year of the benchmark duration. Historic portfolio exposures to the different sectors have been in ranges of: US Treasuries and Agencies 0-50% (vs BM of 40%); IG credit 10-50% (vs. BM of 30%), Agency MBS 20-70% (vs. BM of 30%); Structured credit 20-40% (vs. BM of below 5%).
- Wellington runs a well-diversified portfolio such that no one source of alpha overwhelms returns and only invest in investment grade US-dollar denominated securities that do not make allocations to the high yield or non-US dollar denominated sectors.
- While individual security analysis is the cornerstone to their research effort, the Broad Markets team maintains its own top-down sector relative value analysis as well as views on interest rates, yield curve shape and inflation. The Broad Markets Team meets formally bi-monthly to discuss and develop top-down strategy that includes an interdisciplinary team of internal analysts, macro strategists, portfolio managers and traders.

# Historical Performance, Portfolio Characteristics, and Management Fees

## Historical Performance (Gross of Fees)
## as of December 31, 2020

| | Dodge & Cox | Income Research & Management | Loomis Sayles | Wellington | *BBG Barclays U.S. Aggregate Index* |
|---|---|---|---|---|---|
| Trailing Period Returns (%): | | | | | |
| MRQ | 2.5 | 1.1 | 1.0 | 1.2 | *0.7* |
| 1 year | 9.5 | 9.6 | 9.3 | 9.4 | *7.5* |
| 3 years | 6.5 | 6.2 | 6.1 | 6.2 | *5.3* |
| 5 years | 6.0 | 5.2 | 5.2 | 5.5 | *4.4* |
| 10 years | 5.3 | 4.7 | 4.7 | 4.9 | *3.8* |
| Calendar Year Returns (%): | | | | | |
| 2020 | 9.5 | 9.6 | 9.3 | 9.4 | *7.5* |
| 2019 | 10.0 | 9.3 | 9.2 | 9.8 | *8.7* |
| 2018 | 0.2 | 0.1 | 0.2 | -0.3 | *0.0* |
| 2017 | 5.1 | 4.0 | 3.9 | 4.7 | *3.5* |
| 2016 | 5.3 | 3.6 | 3.7 | 4.3 | *2.6* |
| 2015 | 0.2 | 0.6 | 1.1 | 0.7 | *0.5* |
| 2014 | 6.4 | 7.1 | 6.5 | 6.6 | *6.0* |
| 2013 | 1.0 | -1.3 | -1.3 | -1.0 | *-2.0* |
| 2012 | 9.8 | 7.4 | 6.6 | 7.0 | *4.2* |
| 2011 | 5.7 | 7.3 | 8.8 | 8.6 | *7.8* |

## Historical Performance Excess Returns (Gross of Fees)
### as of December 31, 2020

| | Dodge & Cox | Income Research & Management | Loomis Sayles | Wellington | *BBG Barclays U.S. Aggregate Index* |
|---|---|---|---|---|---|
| Trailing Period Returns (%): | | | | | |
| MRQ | 1.9 | 0.4 | 0.3 | 0.5 | *0.7* |
| 1 year | 2.0 | 2.1 | 1.8 | 1.9 | *7.5* |
| 3 years | 1.1 | 0.9 | 0.8 | 0.8 | *5.3* |
| 5 years | 1.5 | 0.8 | 0.8 | 1.1 | *4.4* |
| 10 years | 1.4 | 0.8 | 0.9 | 1.1 | *3.8* |
| Calendar Year Returns (%): | | | | | |
| 2020 | 2.0 | 2.1 | 1.8 | 1.9 | *7.5* |
| 2019 | 1.3 | 0.6 | 0.5 | 1.0 | *8.7* |
| 2018 | 0.2 | 0.1 | 0.2 | -0.3 | *0.0* |
| 2017 | 1.6 | 0.4 | 0.4 | 1.1 | *3.5* |
| 2016 | 2.7 | 0.9 | 1.0 | 1.6 | *2.6* |
| 2015 | -0.4 | 0.0 | 0.6 | 0.2 | *0.5* |
| 2014 | 0.5 | 1.1 | 0.6 | 0.6 | *6.0* |
| 2013 | 3.1 | 0.7 | 0.7 | 1.0 | *-2.0* |
| 2012 | 5.6 | 3.2 | 2.4 | 2.8 | *4.2* |
| 2011 | -2.2 | -0.5 | 0.9 | 0.8 | *7.8* |

## Portfolio Characteristics
## as of December 31, 2020

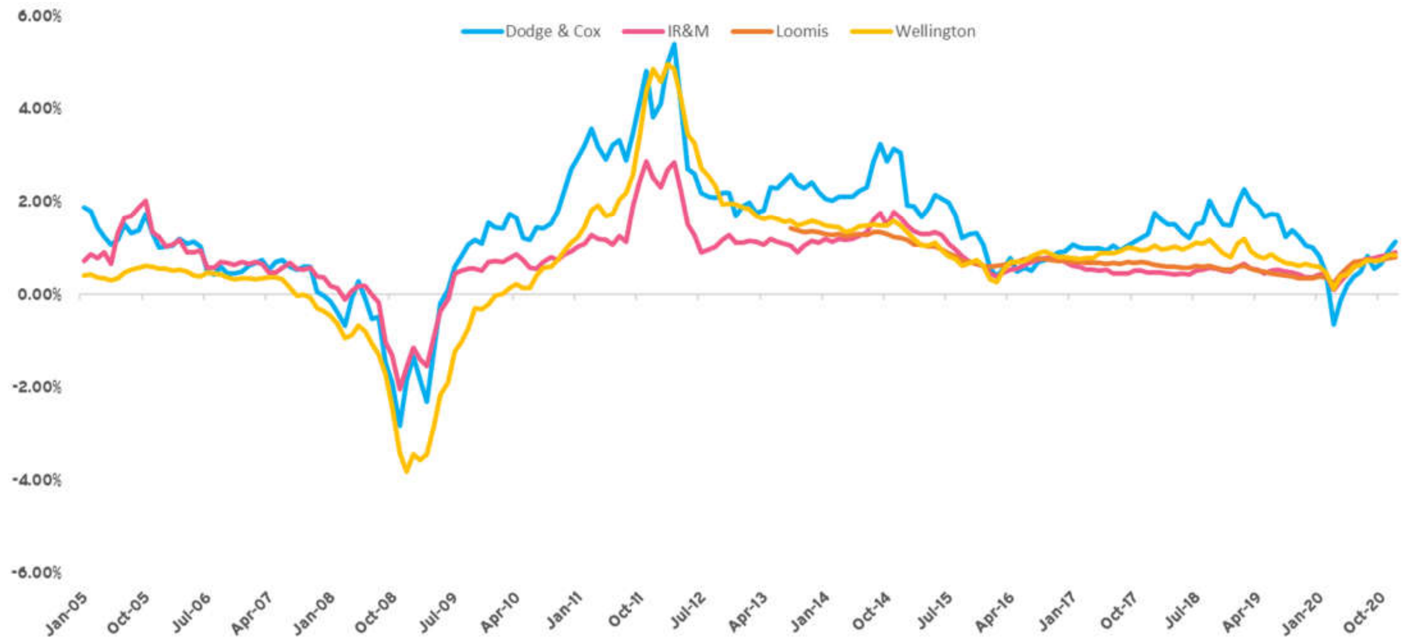
| | Dodge & Cox | Income Research & Management | Loomis | Wellington | *BBG Barclays U.S. Aggregate Index* |
|---|---|---|---|---|---|
| Portfolio Profile: | | | | | |
| Average Duration (years) | 5.0 | 6.1 | 6.1 | 6.2 | *6.1* |
| Yield to Maturity (%) | 1.6 | 1.4 | 1.3 | 1.4 | *1.1* |
| Number of Holdings | 218 | 283 | 630 | 340 | *11984* |
| Average Credit Quality | A+ | A+ | Aa3 | Aa3 | *AA-* |
| Credit Quality Breakdown (%): | | | | | |
| AAA | 54 | 57 | 67 | 62 | *70* |
| AA | 2 | 4 | 5 | 4 | *3* |
| A | 8 | 15 | 13 | 13 | *12* |
| BBB | 24 | 24 | 16 | 21 | *15* |
| Below BBB | 11 | 1 | 0 | 0 | - |
| Non-rated | - | - | 2 | 3 | - |
| Cash | 3 | 0 | -4 | -3 | - |
| Sector Allocation: | | | | | |
| Treasury | 17 | 12 | 26 | 14 | *37* |
| Agency | 3 | 4 | 1 | - | *2* |
| Corporate | 39 | 39 | 34 | 32 | *27* |
| Municipal | 2 | 3 | - | 3 | *1* |
| MBS | 32 | 25 | 26 | 36 | *27* |
| CMBS | 0 | 10 | 4 | 4 | *2* |
| ABS | 6 | 7 | 13 | 5 | *0* |
| Other | - | - | - | 10 | *4* |
| Cash and Equivalents | 2 | 0 | -4 | -3 | - |

## Common Period Returns and Risk Statistics [1]
## (September 2010–December 2020)

| | Dodge & Cox | Income Research & Management | Loomis | Wellington | *BBG Barclays U.S. Aggregate Index* |
|---|---|---|---|---|---|
| Common Period Perf (%): | | | | | |
| Trailing Period Return | 5.2 | 4.4 | 4.5 | 4.7 | *3.6* |
| Up Period Percent | 57 | 67 | 80 | 67 | *NA* |
| Down Period Percent | 82 | 78 | 82 | 71 | *NA* |
| Risk: | | | | | |
| Standard Deviation (%) | 3.1 | 3.0 | 3.0 | 3.0 | *2.9* |
| Tracking Error (%) | 2.1 | 0.8 | 0.4 | 0.8 | *NA* |
| Beta | 0.79 | 0.99 | 1.02 | 0.99 | *NA* |
| Correlation to Benchmark | 0.76 | 0.97 | 0.99 | 0.97 | *NA* |
| Downside Deviation (%) | 3.0 | 3.0 | 2.9 | 2.9 | *2.8* |
| Upside Capture (%) | 112 | 112 | 113 | 114 | *NA* |
| Downside Capture (%) | 63 | 93 | 92 | 87 | *NA* |
| Risk-Adjusted Return: | | | | | |
| Sharpe Ratio | 1.51 | 1.28 | 1.31 | 1.36 | *1.02* |
| Information Ratio | 0.77 | 1.08 | 2.44 | 1.41 | *NA* |

[1] Data shown is calculated using gross of fees performance.
Risk statistics calculated against the primary benchmark: Bloomberg Barclays U.S. Aggregate Index.

## Rolling Three-Year Excess Returns (Gross of Fees) [1]
## (January 2005 - December 2020)




| As of 12/31/2020 | Total Periods | Periods Outperformed | Percentage (%) | Average Excess Return (%) | Median Excess Return (%) | Max (%) | Min (%) | Range (%) |
|---|---|---|---|---|---|---|---|---|
| Dodge & Cox | 192 | 173 | 90 | 1.3 | 1.3 | 5.4 | -2.8 | 8.2 |
| IR&M | 192 | 179 | 93 | 0.8 | 0.7 | 2.9 | -2.1 | 4.9 |
| Loomis | 89 | 89 | 100 | 0.8 | 0.7 | 1.4 | 0.2 | 1.2 |
| Wellington | 192 | 162 | 84 | 0.7 | 0.8 | 5.0 | -3.8 | 8.8 |

[1] Benchmark: Bloomberg Barclays US Aggregate.

## Historical Trailing Risk (Gross of Fees)
## as of December 31, 2020

| | Dodge & Cox | | | IR&M | | | Loomis | | | Wellington | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 3 Yr. | 5 Yr. | 10 Yr. | 3 Yr. | 5 Yr. | 10 Yr. | 3 Yr. | 5 Yr. | 10 Yr. | 3 Yr. | 5 Yr. | 10 Yr. |
| Information Ratio | 0.43 | 0.70 | 0.68 | 1.09 | 1.17 | 1.07 | 1.53 | 1.82 | 2.37 | 0.84 | 1.12 | 1.33 |
| Tracking Error (%) | 2.6 | 2.2 | 2.1 | 0.8 | 0.7 | 0.8 | 0.5 | 0.4 | 0.4 | 1.0 | 0.9 | 0.8 |
| Sharpe Ratio | 1.25 | 1.43 | 1.51 | 1.30 | 1.27 | 1.35 | 1.29 | 1.24 | 1.37 | 1.28 | 1.31 | 1.42 |
| *Sharpe Ratio Index* | *1.11* | *1.04* | *1.10* | *1.11* | *1.04* | *1.10* | *1.11* | *1.04* | *1.10* | *1.11* | *1.04* | *1.10* |
| Standard Deviation (%) | 3.9 | 3.4 | 3.1 | 3.6 | 3.2 | 3.0 | 3.5 | 3.3 | 3.0 | 3.6 | 3.3 | 3.0 |
| *S.D. Index (%)* | *3.4* | *3.2* | *2.9* | *3.4* | *3.2* | *2.9* | *3.4* | *3.2* | *2.9* | *3.4* | *3.2* | *2.9* |
| Jensen's Alpha (%) | 1.6 | 2.1 | 2.0 | 0.8 | 0.8 | 0.8 | 0.6 | 0.7 | 0.8 | 0.7 | 1.0 | 1.0 |
| Beta | 0.86 | 0.82 | 0.80 | 1.03 | 1.00 | 0.99 | 1.03 | 1.02 | 1.02 | 1.02 | 1.00 | 1.00 |
| Correlation Coefficient | 0.75 | 0.77 | 0.76 | 0.97 | 0.98 | 0.97 | 0.99 | 0.99 | 0.99 | 0.96 | 0.96 | 0.97 |
| Upside Market Capture (%) | 109 | 110 | 110 | 111 | 110 | 112 | 110 | 110 | 112 | 111 | 113 | 113 |
| Downside Market Capture (%) | 84 | 64 | 66 | 99 | 93 | 93 | 97 | 94 | 92 | 99 | 92 | 88 |

- IR&M, Loomis and Wellington have similar, high upside capture however Wellington has been able to capture less downside with 88% over the trailing 10-year trailing period. The Dodge & Cox existing portfolio has historically had an impressive 66% downside capture and 110% upside capture over the 10-year trailing period.
- Loomis Sayles Core Disciplined Alpha strategy stands out for risk adjusted excess returns, as measured by Information Ratio, over all trailing periods.

## Peer Rankings (net of fees)[1 2]
## as of December 31, 2020

| | Dodge & Cox | | | IR&M | | | Loomis Sayles | | | Wellington | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 3 Yr. | 5 Yr. | 10 Yr. | 3 Yr. | 5 Yr. | 10 Yr. | 3 Yr. | 5 Yr. | 10 Yr. | 3 Yr. | 5 Yr. | 10 Yr. |
| Excess Return | 14 | 5 | 5 | 24 | 30 | 26 | 31 | 32 | 24 | 26 | 18 | 15 |
| Standard Deviation | 62 | 50 | 50 | 38 | 30 | 39 | 35 | 37 | 36 | 39 | 43 | 43 |
| Sharpe Ratio | 20 | 3 | 3 | 10 | 16 | 15 | 13 | 19 | 12 | 14 | 8 | 7 |
| Jensen's Alpha | 2 | 2 | 3 | 19 | 25 | 26 | 26 | 32 | 29 | 20 | 14 | 16 |
| Tracking Error | 91 | 91 | 94 | 27 | 24 | 33 | 7 | 5 | 3 | 37 | 43 | 34 |
| Information Ratio | 50 | 37 | 45 | 12 | 8 | 11 | 3 | 1 | 1 | 21 | 9 | 5 |

- IR&M and Wellington's trailing period excess returns rank in the top quartile for almost all trailing periods among the US Core Fixed Income peer universe. Wellington has produced the highest excess returns compared with the other three managers over all trailing periods.
- Loomis Sayles has exhibited both the lowest tracking error and highest risk adjusted excess returns over the 3-, 5- and 10-year trailing periods, ranking in the top decile across the Core universe.
- Overall, Wellington has the most consistently strong risk-adjusted returns, as measured by information and Sharpe ratio and Jensen's Alpha rankings. IR&M is, on average, slightly below Wellington, with Loomis still ranking in the top third of the universe.

[1] All characteristics are ranked high to low. A 1st percentile ranking corresponds to the highest absolute number in the peer group with the exception of tracking error that ranks values from low to high.
[2] Based on gross of fees returns. Excess Return rankings are based on excess returns of each manager compared to the Bloomberg Barclays US Aggregate.

## Excess Return Correlation Matrix
### Longest Common Period[1]

| *As of December 2020* | *Dodge & Cox* |
|---|---|
| Income Research & Management | *0.74* |
| Loomis Sayles | *0.64* |
| Wellington | *0.76* |

- The table above shows the monthly excess return correlation of SJCERA's existing exposure in Dodge & Cox Core Fixed Income SMA and the candidate strategies versus the Bloomberg Barclays US Aggregate. The common period for the strategies listed is September 2010 to December 2020.
- A critical consideration when considering pairing investment managers in the same asset class is the co-movement or correlation of their excess returns over time. In order for the pairing of managers to be beneficial to an overall allocation, the managers should have low or negative correlation of excess returns. Put another way, their returns relative to the index should be complementary in order to smooth the overall return profile of the portfolio.

[1] Longest common period is September 2010 to December 2020.

## Fees and Terms

| Manager | Fee Schedule | Vehicle Type | Effective Fee on $150M | Minimum Account Size | Liquidity |
|---|---|---|---|---|---|
| Income Research & Management | 0.30% on first $50M, 0.25% on next $50M, 0.20% on next $100M, 0.15% thereafter | Separate Account | 25bps | $50M | Daily |
| | 0.39% on first $10M, 0.35% on next $10M, 0.30% on next $10M, 0.25% on next $20M, 0.225% on next $50M | Private Investment Fund | 24bps | $5M | Daily |
| | 0.35% on all assets | Collective Fund | 35bps | NA | Daily |
| Loomis | 0.25% on first $100M, 0.20% on next $100M, 0.18% thereafter | Separate Account | 23bps | $50M | Daily |
| | 0.25% on first $100M 0.15% thereafter | Collective Trust | 21bps | $50M | Daily |
| Wellington | 0.25% on first $100m, 0.15% thereafter | Separate Account | 22bps | $150M | Daily |
| | 0.12% on all assets (3bp capped operating expenses) | Commingled Fund | 15bps | $1M | Daily |

- Fee schedules may be client specific and separate account fee schedules are eligible for negotiation with managers.

# Appendix

**Information Ratio:** This statistic is a measure of the consistency of a portfolio's performance relative to a benchmark. It is calculated by subtracting the benchmark return from the portfolio return (excess return), and dividing the resulting excess return by the standard deviation (volatility) of this excess return. A positive information ratio indicates outperformance versus the benchmark, and the higher the information ratio, the more consistent the outperformance.

**Sharpe Ratio:** A commonly used measure of risk-adjusted return. It is calculated by subtracting the risk free return (usually three-month Treasury bill) from the portfolio return and dividing the resulting excess return by the portfolio's total risk level (standard deviation). The result is a measure of return per unit of total risk taken. The higher the Sharpe ratio, the better the fund's historical risk adjusted performance.

**Standard Deviation**: A measure of the total risk of an asset or a portfolio. Standard deviation measures the dispersion of a set of numbers around a central point (e.g., the average return). If the standard deviation is small, the distribution is concentrated within a narrow range of values. For a normal distribution, about two thirds of the observations will fall within one standard deviation of the mean, and 95% of the observations will fall within two standard deviations of the mean.

**Tracking Error:** This statistic measures the standard deviation of excess returns relative to a benchmark. Tracking error is calculated by multiplying the standard deviation of the monthly excess returns of a portfolio relative to a benchmark by the square root of twelve in order to annualize. The higher the tracking error, the greater the volatility of excess returns relative to a benchmark.

Sources:

- www.businessdictionary.com
- www.liabilityinsurance.org
- Investment Terminology, International Foundation of Employee Benefit Plans, 1999.
- Modern Investment Management, Litterman, Bob, 2003.
- The Handbook of Fixed Income Securities, Fabozzi, Frank J., 1991.
- Investment Manager Analysis, Travers, Frank J., 2004

WE HAVE PREPARED THIS REPORT (THIS “REPORT”) FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE “RECIPIENT”).

SIGNIFICANT EVENTS MAY OCCUR (OR HAVE OCCURRED) AFTER THE DATE OF THIS REPORT AND THAT IT IS NOT OUR FUNCTION OR RESPONSIBILITY TO UPDATE THIS REPORT. ANY OPINIONS OR RECOMMENDATIONS PRESENTED HEREIN REPRESENT OUR GOOD FAITH VIEWS AS OF THE DATE OF THIS REPORT AND ARE SUBJECT TO CHANGE AT ANY TIME. ALL INVESTMENTS INVOLVE RISK. THERE CAN BE NO GUARANTEE THAT THE STRATEGIES, TACTICS, AND METHODS DISCUSSED HERE WILL BE SUCCESSFUL.

INFORMATION USED TO PREPARE THIS REPORT WAS OBTAINED FROM INVESTMENT MANAGERS, CUSTODIANS, AND OTHER EXTERNAL SOURCES. WHILE WE HAVE EXERCISED REASONABLE CARE IN PREPARING THIS REPORT, WE CANNOT GUARANTEE THE ACCURACY OF ALL SOURCE INFORMATION CONTAINED HEREIN.

CERTAIN INFORMATION CONTAINED IN THIS REPORT MAY CONSTITUTE “FORWARD - LOOKING STATEMENTS,” WHICH CAN BE IDENTIFIED BY THE USE OF TERMINOLOGY SUCH AS “MAY,” “WILL,” “SHOULD,” “EXPECT,” “AIM”, “ANTICIPATE,” “TARGET,” “PROJECT,” “ESTIMATE,” “INTEND,” “CONTINUE” OR “BELIEVE,” OR THE NEGATIVES THEREOF OR OTHER VARIATIONS THEREON OR COMPARABLE TERMINOLOGY. ANY FORWARD-LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION ARE BASED UPON CURRENT ASSUMPTIONS. CHANGES TO ANY ASSUMPTIONS MAY HAVE A MATERIAL IMPACT ON FORWARD - LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS. ACTUAL RESULTS MAY THEREFORE BE MATERIALLY DIFFERENT FROM ANY FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION.

PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

**2021 Annual SJCERA Investment Roundtable**

**October 7, 2021**

**7:15 a.m. – 5:00 p.m.**

**Wine & Roses**
2505 Turner Road
Lodi, CA 95242
(209)334-6988

## AGENDA - DRAFT

| Thursday, October 7, 2021 | | Duration (Minutes) |
|---|---|---|
| 7:45 a.m. | Roundtable Check-in | :15 |
| 8:00 a.m. | Roll Call<br>Pledge of Allegiance<br>Welcome and Introduction of Participants | :15 |
| 8:15 a.m. | Overview of SJCERA – Asset Allocation, return and risk<br>(David Sancewich, Ryan Lobdell - Meketa) | :30 |
| 8:45 a.m. | Keynote Speaker – Investing after COVID<br>(Neuberger Berman) | 1h:30 |
| 10:15 a.m. | Break | :30 |
| 10:45 a.m. | Private assets (Real Estate, Private Equity, Infrastructure, Credit) – What's next and where are the markets today.<br>(Managers: Ocean Avenue, Stellex, Davidson Kempner, Berkeley Partners) | 1h:00 |
| 11:45 a.m. | Inflation – What is it? How is it measured? What can SJCERA do to protect its portfolio<br>(Manager: PIMCO, Mt Lucas) | :45 |
| 12:30 p.m. | Lunch | 1h:15 |

| | | |
|---|---|---|
| 1:45 p.m. | Game of Family Feud: Educational and interactive discussion on all things Investing and SJCERA<br>(David Sancewich and Ryan Lobdell - Meketa) | :45 |
| 2:30 p.m. | Interest Rates and Global Growth – Can the Fed control rates? Is the U.S. the next Japan?<br>(Dodge & Cox, Stone Harbor) | :45 |
| 3:15 p.m. | Open Discussion – Where do we go from here?”<br>(All in attendance) | :30 |
| 3:45 p.m. | Break | :30 |
| 4:15 p.m. | Open Discussion and Re-Cap<br>(David Sancewich - Meketa)<br>Comments from the Board<br>Comments from the Public | :45 |
| 5:00 p.m. | Adjournment | |

# Board of Retirement Meeting

**San Joaquin County Employees' Retirement Association**

**Agenda Item 8.01**

**August 13, 2021**

**SUBJECT: In-Person Board Meeting Update**

**SUBMITTED FOR: ___ CONSENT ___ ACTION __X_ INFORMATION**

**PURPOSE**

To update the Board on staff's preparation to resume in-person meetings in October with an option for trustees and the public to continue to participate remotely.

**DISCUSSION**

The Governor's Executive Order suspending certain provisions of the Brown Act in order to allow virtual public meetings is set to expire on September 30, 2021. Unless the State of Emergency Order is extended prior to September 30, 2021, SJCERA will be required to have in-person Board meetings beginning with the October meeting.

At its May 7, 2021 meeting, the Board requested staff to research a hybrid approach to meetings whereby meetings would be held in-person; however, individual trustees, consultants, presenters, and/or the public could attend meetings virtually according to their needs or preferences.

**Brown Act Requirements for Trustees Participating Remotely**

Meetings of a local legislative body, such as the Board of Retirement, must comply with the Ralph M. Brown Act, which requires meetings to be held in open forum (with limited exceptions for closed session), and guarantees the public's right to attend and participate in meetings of local legislative bodies.

The Brown Act allows teleconferencing provided specified requirements are met. Under the Brown Act, "teleconference" means a Board meeting where trustees are in different locations, connected by electronic means (either audio, video or both). Should any trustee desire to utilize teleconferencing of any kind, the following requirements must be fulfilled:

- Each teleconference location must be identified in the notice and agenda of the meeting
- The agenda must be posted at each teleconference location (main entrances and specific locations)
- Each teleconference location must be accessible to the public (including the requirements for ADA accessibility)
- The agenda must provide the opportunity for members of the public to address the Board at each teleconference location
- Teleconferencing may be used for all purposes during the meeting
- All votes must be taken by roll call
- At least a quorum of the Board must participate from teleconference locations within the County
- Teleconferenced meetings must be conducted in a manner that protects the statutory and constitutional rights of anyone appearing before the Board

**Facility Improvements: Install Partitions, Screen Attendees**

A County-approved vendor has inspected SJCERA's Board room, and submitted a proposal to decrease the risk of COVID infection in SJCERA's Board room, to include partitions between Trustees' seats. The estimated cost is $7500 and work is anticipated to be completed by mid-September.

In addition, staff will screen each member of the public who attends in-person, including:

- Ask if they have COVID or have been exposed to someone with COVID
- Ask if they have experienced a cough, fever or chills in the past 48 hours
- Conduct temperature check
- Require mask wearing and social distancing

**Technology Enhancements to Sound Equipment**

To implement a hybrid solution, SJCERA must install enhanced audio, in order to avoid audio echos. The upgrade consists of deploying new hardware which will allow for the integration of existing Board room cameras and microphones into a feed, which can be used in Zoom meetings. This integration will allow for Zoom meeting attendees (both the public and any trustees participating remotely) to hear and see Board members who are present in the SJCERA Board room, view presentations projected on screen, and allow for the Zoom attendees to participate in the discussion. The cost of this equipment upgrade is $15,000 and will be absorbed into the existing budget.

The goal is for the upgrade to be installed and tested by the end of September. However, the ongoing global shortage of electronic parts and equipment could result in delaying full implementation. Should the implementation be delayed, staff recommends resuming fully in-person Board meetings until the upgrade is complete. The other options explored would require expenditure of funds on temporary solutions or would be of substandard quality.

J Shick

JOHANNA SHICK
Chief Executive Officer

Greg Frank

GREG FRANK
Management Analyst III

**Board of Retirement Meeting**
**San Joaquin County Employees' Retirement Association**

**Agenda Item 8.02**

**DATE: August 13, 2021**

**SUBJECT: Strategic Plan Impact on 2022 Action Plan**

**SUBMITTED FOR: ___ CONSENT ___ ACTION _X_ INFORMATION**

## RECOMMENDATION

Accept a draft 2022 Action Plan in October that staff will adjust, if necessary, upon the Board's approval of the Strategic Plan.

## PURPOSE

To harmonize the timing of the action plan and budget deliverables specified in the *CEO Performance Review* policy, with the timing of the development of the multi-year Strategic Plan.

## DISCUSSION

The *CEO Performance Review* policy requires the CEO to present "to the Board of Retirement for their approval written goals for the upcoming calendar year" in October. These goals are presented in the form of SJCERA's annual Action Plan at the October meeting and are then used to develop the budget, which is presented for review at the November Administrative Committee meeting and for approval at the December Board meeting.

SJCERA is currently developing a three- to five-year Strategic Plan. The draft Strategic Plan is scheduled to be presented to the Board in December 2021.

An organization's Strategic Plan should be the guiding, cornerstone document and the foundation for all other goals (such as annual action plans). Thus, ordinarily, the Strategic Plan should be developed first, and the annual Action Plan goals should be developed based on that Strategic Plan.

This year's timeline for the development of SJCERA's Strategic Plan cannot reasonably be compressed to be completed before the Action Plan is due in October. Further, the timing of events described in the CEO Performance Review policy (including the Action Plan and budget) is carefully structured to support our calendar year budgeting process and works well in most years. The issue this year, is simply the timing of the Strategic Plan development: timelines for future strategic plans should target Board approval in July so that staff can develop the Action Plan in August and September, and submit the final Action Plan in October, as usual.

In order to resolve this apparent timing conflict, staff proposes the following:

- October — Submit draft 2022 Action Plan to the Board.
- November — Board Strategic Planning meeting on November 4.

  Administrative Committee meets (tentatively planned for the week of November 15-19). Staff submits proposed budget to the committee for review, incorporating any budget-related items from the draft action plan and the Board's November 4 strategic planning session.

- December — Submit draft Strategic Plan to Board for consideration and/or adoption. (The plan may be adopted "as is", or the Board may request changes, and the final will be brought back to the January meeting.)

  Administrative Committee and staff submit 2022 budget to Board for approval. If any significant changes are made to the Strategic Plan that would affect the budget, they can be handled as part of the mid-year budget adjustment process.

- January — Submit final Strategic Plan to Board (if the draft plan was not adopted in December).

  If the Strategic Plan necessitates any changes to the 2022 Action Plan, submit final 2022 Action Plan to the Board; otherwise, note that no changes were indicated, and the draft plan becomes the final plan.

## ATTACHMENT

Attachment A. Strategic Planning Process Timeline
CEO Performance Review policy

JShick
Johanna Shick, CEO

# Attachment A. Strategic Planning Process Timeline
# SJCERA - 2021

## Input (Jul./Aug.)

- Inform the Board of the process
- Gather input from SJCERA Leadership Team
- Develop and administer survey of Leadership Team and Board Consultants
- Interview Board Trustees
- Analyze and compile survey results

Phase I

## Leadership Team Session (September)

- Conduct visioning exercise
- Discuss core values
- Review survey results/input
- Conduct analysis of strengths, weaknesses, opportunities, threats (SWOT)
- Identify critical issues to address

## Board Planning Session Prep (Oct./Nov.)

- Summarize and document Leadership Team Session outcomes
- Work with Leadership Team to prepare pre-read materials for the Board planning session

## Board Planning Session (November)

- Facilitate Board Strategic Planning Session:
  - Discuss Mission
  - Discuss Vision
  - Discuss Core Values
- Review SWOT results and discuss Board input
- Discuss and prioritize critical issues

Phase II

## Present Strategic Plan (December)

- Summarize consensus meeting outcomes
- Work with Leadership Team to develop draft Strategic Plan
- Present the draft for Board consideration

Phase III



MOSAIC Governance Advisors

## I. Purpose

A. To provide guidelines and procedures for the systematic assessment of Chief Executive Officer (CEO) performance.

B. To enhance CEO and organizational effectiveness, by ensuring that:

1. SJCERA's mandates are being carried out appropriately,
2. The working relationship between the Board and the CEO is effective and strong, and
3. The CEO is provided with specific expectations and feedback regarding his/her performance.

## II. Frequency and Content

A. CEO performance is evaluated annually against clearly defined objectives and expectations, which are developed jointly by the CEO and trustees.

1. Objectives and expectations may include SJCERA's achievement of financial and organizational goals, and service targets, as well as effective human resource management, progress on implementing SJCERA strategy, and other Board directives.

## III. Objectives

A. The CEO Performance Review includes two objectives: assessment of performance during the past fiscal year and development of goals for the upcoming year. The evaluation should document past successes and targeted achievements, future objectives and goals, and also the CEO's ability, vision, strategy and resources to achieve those aims.

## IV. Process and Timeline

A. The CEO Performance Review will proceed according to the following process and timeline:

1. <u>October</u>

   a. The CEO presents to the Board of Retirement for their approval written goals for the upcoming calendar year.

   b. Goals should include performance targets and personal/development goals.

   c. The approved goals will be incorporated into the staff goals and budget, and considered by the Board and the CEO Performance Review Committee in the performance and compensation review process.

2. December

   a. The CEO presents a budget, which identifies necessary funding to achieve approved goals.
   b. The CEO provides the Committee Chair a schedule of proposed due dates for tasks outlined in this policy. The schedule will consider, among other things, Board meeting dates and required approvals.

3. January

   a. The CEO reports on accomplishments on prior-year goals to the full board at its regularly scheduled meeting in open session.
   b. In closed session, the CEO provides to all Board members a self-evaluation for the Board's consideration in completing their overall evaluation.
   c. CEO Performance Feedback Worksheets (Attachment A) are distributed to all Board members.
   d. The CEO Performance Review Committee meets and appoints a Committee Chair, if the Board Chair did not assign a Committee Chair when making committee assignments. The Committee Chair is responsible for gathering the Worksheets, compiling/summarizing results, relaying trustee comments during review discussions and, in collaboration with the committee, drafting the performance review memo.
   e. The Worksheets shall be returned to the Committee Chair. The Chair shall set a due date that is no later than month-end.
      i. The Committee Chair consolidates feedback into the Consolidated Trustee Feedback form (Attachment B) and drafts a memo using the Memo Template (Attachment C) reflecting the collective assessment of the CEO's performance. The Committee Chair distributes the consolidated feedback and draft memo to the CEO Performance Review Committee.

      ii. The Committee Chair may have one-on-one discussions as needed to clarify trustees' individual input, provided appropriate care is taken to ensure compliance with the Brown Act.

4. February/March

   a. The committee meets, without staff present, to review and provide input on the memo based on the consolidated feedback, including assisting with summarizing the feedback, determining the key accomplishments, and making suggestions for further development (if any) to include in the memo. The committee will also formulate a recommendation regarding compensation in accordance with Section IV(A)(4)(g) of this policy and the CEO's employment agreement.

b. The Committee Chair distributes the summarized feedback and committee-approved draft memo to the trustees and the CEO.

    i. The trustees may have one-on-one discussions with the Committee Chair as needed regarding the draft memo, provided appropriate care is taken to ensure compliance with the Brown Act.

c. The Board Chair and the Committee Chair meet with the CEO to discuss the feedback.

d. The CEO meets with the Board in closed session to discuss the performance review memo and feedback.

    i. Upon completion of IV.A.4.d, the Board Chair signs the memo, obtains the CEO signature acknowledging receipt, provides a copy of the review memo to the CEO, and submits the original signed memo to the County Human Resources Department (44 North San Joaquin Street, Suite 330, Stockton, CA 95202) for inclusion in the CEO's personnel file.

    ii. Upon completion of IV.A.4.d, all Board members shall shred or otherwise destroy all feedback, notes, drafts, emails, and other related documents and correspondence, whether paper or electronic, that were produced or obtained, sent or received, as part of the CEO Review Process.

e. The Board subsequently authorizes merit, equity, or incentive compensation increases, if any, based on performance. Such increases, if any, shall be in addition to any COLA increases awarded to the Executive Unit.

    i. Compensation for the CEO position shall be included in a market survey of total compensation every three years, to ensure its competitiveness.

        1. The County Human Resources Division conducts total compensation surveys for County department heads.

    ii. The Board may authorize incentive compensation if it determines the goals approved pursuant to Section IV.A.1 have been achieved. Such incentive compensation shall not exceed 10 percent of the CEO's annual base salary, increase base pay, or be included as part of the CEO's retirement-eligible compensation.

    iii. In accordance with the Brown Act, the Board must vote on any merit, equity, or incentive compensation increases, in open session. This open session vote, if any, is scheduled for the next available Board meeting's open session, typically in March.

5. <u>June</u>

a. CEO provides mid-year progress report on calendar year goals presented to the Board pursuant to Section IV(A)(1).

b. Board discusses mid-year progress and performance with CEO present in closed session.

i. This meeting is intended to assist the Board in monitoring the organization's progress toward the annual goals, to provide an opportunity to adjust expectations in light of new circumstances, and to provide the opportunity for the CEO to make adjustments, if needed, during the second half of the calendar year.

6. <u>August</u>

a. The Board Chair appoints CEO Performance Review committee members.

## V. Policy Review

A. Staff shall review this Policy annually to ensure that it remains relevant, appropriate, and in compliance. Any revisions or amendments to this policy must be approved by the Board of Retirement in accordance with the bylaws.

## VI. History

| | |
|---|---|
| 06/08/2018 | Adopted Policy |
| 06/29/2018 | Staff updated format |
| 07/12/2019 | Amended to make Committee a standing committee with appointment considerations, clarified Committee's role, and integrated compensation review into the process |
| 07/10/2020 | Amended to align the committee appointment timing with other standing committees, remove text included in committee charter, assign responsibility for proposing schedule of tasks, and clarify compensation discussion and decision requirements |

**Certification of Board Adoption:**

07/10/2020

Clerk of the Board Date

**Chief Executive Officer Performance Feedback Worksheet**

CEO Name:______________________________________ Review Period:________________ to ______________

Trustee Name:_________________________________________ Date:________________________________

Each Trustee is asked to reflect and comment on the CEO's performance during the Review Period. For each of the evaluation categories, descriptions have been provided to assist you with assigning a score of 1 (the minimum score) through 5 (the maximum), or a half-point increment in between. The CEO's self-assessment has also been provided for your reference. Wherever possible, please include observations or specific examples that support your assessment. The Chair of the CEO Performance Review Ad Hoc Committee will compile the results to produce an overall Board assessment. In consultation with the Ad Hoc Committee and the CEO, the Ad Hoc Committee Chair will utilize these materials to draft a memorandum to the CEO, documenting the Board's collective assessment of the CEO's performance and serving as a foundation for productive, two--way dialogue between the Board and the CEO. Note: these worksheets are considered confidential personnel records and should not be shared, discussed or disclosed outside of the CEO Performance Review process. **Please return your completed CEO Performance Review Worksheet to the Ad Hoc Committee Chair on or before the deadline.**

| | Unacceptable 1 | 1.5 | Needs Improvement 2 | 2.5 | Satisfactory 3 | 3.5 | Above Average 4 | 4.5 | Outstanding 5 |
|---|---|---|---|---|---|---|---|---|---|
| Leadership | Is often unaware of politically sensitive situations.<br>Demonstrates poor judgment in public interactions.<br>Often runs into crises because of weak leadership/management.<br>Does not communicate a link between organizational goals and employee responsibilities.<br>Does not analyze trends and prepare for the future.<br>Consistently out of touch with work going on.<br>Consistently makes poor ethical decisions. | | | | Understands the long-term view of SJCERA's strengths, challenges and opportunities and is aware of industry issues.<br>Articulates and acts as a role model for mission and core values.<br>Anticipates issues, responds to changes affecting SJCERA and brings forward workable alternatives and solutions.<br>Provides direction and support to the Board regarding its fiduciary obligations and governance role.<br>Brings new strategic concepts to the organization.<br>Receptive to change.<br>Makes decisions with integrity.<br>Builds depth and breadth of technical expertise and effectively makes decisions based on technical knowledge. | | | | Inspires confidence, established credibility with Board, staff, members and participating employers.<br>Takes a long-term view and builds a shared vision with others that is understood at all levels of the organization.<br>Creates and drives critical change initiatives throughout the organization.<br>Empowers the senior management team to drive organizational success.<br>Models the highest of ethics, values and integrity at all times; fosters a culture of ethical behavior.<br>Forecasts trends, invites innovation and development of creative strategies and practical solutions to issues and challenges.<br>Builds an organization that makes thoughtful choices in a timely manner.<br>Displays courage and appropriately makes sound decisions. |
| | **Leadership General Comments or Examples:** | | | | | | | | |

| | Unacceptable 1 | 1.5 | Needs Improvement 2 | 2.5 | Satisfactory 3 | 3.5 | Above Average 4 | 4.5 | Outstanding 5 |
|---|---|---|---|---|---|---|---|---|---|
| Management | SJCERA's activities are frequently out of compliance with laws, policies, regulations.<br>Fails to understand and act upon requests from the Board in a timely manner.<br>Failed to manage in several situations, causing a breakdown in service quality and timeliness.<br>Makes little or no effort to assess risks or keep current on changes that may require adjustments.<br>Loses sight of the financial big picture.<br>Does not control expenditures well.<br>Does not accept responsibility when problems arise. | | | | Manages SJCERA's activities in compliance with laws, policies, and regulations.<br>Understands and respects the Board's policy role; implements Board direction.<br>Recommends, formulates and implements operating policies and procedures to comply with laws, plan provisions, and/or best practices.<br>Delivers performance as measured by key metrics in core business areas.<br>Exhibits effective problem solving.<br>Meets deadlines.<br>Oversees the development of reasonable budgets, communicates them to the Board, and operates within budgetary limits.<br>Uses financial resources prudently to support the mission; cuts unnecessary spending.<br>Assesses the value of programs and activities; makes changes as needed.<br>Assesses and advises on adequacy of security of all official documents and technology systems.<br>Ensures adequate internal controls.<br>Receives a clean financial audit.<br>Maintains a safe, healthy and environmentally sound workplace. | | | | Proactively monitors legislation and regulations for changes; assesses impact on SJCERA; effectively manages implementation of required changes.<br>Actively redesigns operations, processes, and procedures to improve efficiency, effectiveness, or better meet stakeholder needs.<br>Identifies and removes problems hindering peak performance.<br>Designs intermittent feedback loops to gauge the progress on budget and business goals.<br>Effectively balances risk in decision making.<br>Consistently achieves high levels of productivity and quality in work product. |
| | **Management General Comments or Examples:** | | | | | | | | |

| | Unacceptable<br>1 | 1.5 | Needs Improvement<br>2 | 2.5 | Satisfactory<br>3 | 3.5 | Above Average<br>4 | 4.5 | Outstanding<br>5 |
|---|---|---|---|---|---|---|---|---|---|
| Goal Attainment | Plans poorly.<br>Most goals are not completed, late or regularly over budget.<br>Fails to act upon Board direction.<br>Project results do not reflect the direction given by the Board. | | | | Completes organizational goals on time or renegotiates expectations in light of unexpected circumstances.<br>Develops and attains Board approval on appropriate goals to address organizational needs. | | | | Leads SJCERA staff to achieve SJCERA's goals on time and within budget.<br>Engages the SJCERA leadership team in proposing specific, measurable goals and concrete outcomes.<br>Demonstrates results that meet or exceed stated objectives. |

**Goal Attainment General Comments or Examples:**

| | Unacceptable 1 | 1.5 | Needs Improvement 2 | 2.5 | Satisfactory 3 | 3.5 | Above Average 4 | 4.5 | Outstanding 5 |
|---|---|---|---|---|---|---|---|---|---|
| Stakeholder Relations | Frequently ignores employers' or participants' needs.<br>Allows issues to escalate as a result of untimely resolution. | | | | Actively works with stakeholders to identify and work through issues.<br>Effectively represents SJCERA to members, employers, the media and the general public.<br>Projects a positive image of the organization.<br>Surveys members and uses feedback to identify opportunities for improvement. | | | | Makes an active effort to build rapport.<br>Communicates a compelling and inspiring vision for SJCERA.<br>Maintains a leadership presence that builds others' confidence in the organization.<br>Looks for continuous improvement opportunities in relationships with employers and participants.<br>Member feedback shows a consistent high level of satisfaction. |

**Stakeholder Relations General Comments or Examples:**

| | Unacceptable 1 | 1.5 | Needs Improvement 2 | 2.5 | Satisfactory 3 | 3.5 | Above Average 4 | 4.5 | Outstanding 5 |
|---|---|---|---|---|---|---|---|---|---|
| Communication Skills | Frequently shows annoyance or impatience; is condescending or impolite.<br>Does not inform Board of potential problems.<br>Does not accept responsibility; reacts defensively when issues arise.<br>Is inaccessible or unapproachable; two-way, open dialogue with staff is rare. | | | | Effectively communicates with the Board and staff, keeping them informed.<br>Presents information logically, clearly and concisely; makes complex issues understandable.<br>Demonstrates proficient written and verbal communication/presentation skills.<br>Willing to accept and consider differing viewpoints and constructive feedback.<br>Works collaboratively with the Board, counsel and employer representatives.<br>Provides well-balanced information and clear recommendations/analysis to assist the board in its decision making.<br>Ably serves as Clerk of the Board; minutes are accurate, complete and on time. | | | | Recommendations are thoroughly researched and insightful, and presented in a clear and concise manner.<br>Clearly and persuasively communicates on a broad range of topics inside and outside the organization.<br>Effectively addresses both large and small groups.<br>Effectively handles both friendly and hostile situations with ease.<br>Encourages and embraces candid feedback and constructive suggestions from the Board, staff and stakeholders.<br>Effectively uses the Board for counsel. |

**Communication Skills General Comments or Examples:**

| | Unacceptable 1 | 1.5 | Needs Improvement 2 | 2.5 | Satisfactory 3 | 3.5 | Above Average 4 | 4.5 | Outstanding 5 |
|---|---|---|---|---|---|---|---|---|---|
| **Talent Management** | Blames other for problems.<br>Selects unqualified individuals, resulting in a poor work product or waste of time/money; fails to hold non--performers accountable.<br>Fails to get qualified candidates on consulting projects.<br>Fails to involve leadership and staff appropriately.<br>Does not appropriately develop staff to perform responsibilities.<br>The organization suffers from significant "key person" risk.<br>Is unaware of or fails to comply with applicable labor laws and agreements.<br>Staff participation in training and development is discouraged. | | | | Shares the praise for successes; takes responsibility for failures.<br>Attracts, engages and retains a talented, diverse workforce.<br>Effectively delegates to staff and outside service providers with appropriate safeguards.<br>Maintains a positive working environment by providing a climate of fairness, cooperation, civility and professionalism.<br>Ensures all employees are informed of SJCERA policies, procedures and strategic direction.<br>Sets clear standards of performance for staff.<br>Provides clear, specific and timely performance feedback; rewards superior performance; works to improve undesirable performance.<br>Ensures adequate cross functional training and succession planning for key positions.<br>Provides opportunities for individual growth and career development.<br>Works to establish a climate that welcomes and promotes respect for diversity.<br>Encourages collaboration among staff across divisional boundaries.<br>Manages in accordance with applicable labor laws and agreements.<br>Staff training and development goals are incorporated in the performance review process. | | | | Demonstrates a superior ability to attract and select employee and consultant talent.<br>Uses a variety of innovative methods to attract the right individuals.<br>Creates and/or continously improves upon a positive working environment.<br>Creates a framework that allows teams to work effectively and efficiently.<br>Coaches and develops direct reports and emerging leaders to high performance.<br>Sets realistic expectations that are both achievable and provide opportunity for growth.<br>Possesses a strong knowledge of labor laws and agreements and develops that knowledge in others.<br>Fosters a culture of continuous learning that is fully integrated throughout the work force. |
| | **Team Management General Comments or Examples:** | | | | | | | | |

| Chief Executive Officer Performance Feedback Worksheet | **CONSOLIDATED TRUSTEE FEEDBACK** **ATTACHMENT B** CEO Name:______________________________________Review Period____________to______________ |
|---|---|
| Category and Scores | Comments *(Copy all trustees' comments for each category into the corresponding space provided below.)* |
| **LEADERSHIP**<br>Trustee Scores (list all): ____________<br>________________________________<br>Average Trustee Score:____________<br>CEO Self-Score:__________________ | |
| **MANAGEMENT**<br>Trustee Scores (list all): ____________<br>________________________________<br>Average Trustee Score:____________<br>CEO Self-Score:__________________ | |
| **GOAL ATTAINMENT**<br>Trustee Scores (list all): ____________<br>________________________________<br>Average Trustee Score:____________<br>CEO Self-Score:__________________ | |
| **STAKEHOLDER RELATIONS**<br>Trustee Scores (list all): ____________<br>________________________________<br>Average Trustee Score:____________<br>CEO Self-Score:__________________ | |
| **COMMUNICATION SKILLS**<br>Trustee Scores (list all): ____________<br>________________________________<br>Average Trustee Score:____________<br>CEO Self-Score:__________________ | |
| **TALENT MANAGEMENT**<br>Trustee Scores (list all): ____________<br>________________________________<br>Average Trustee Score:____________<br>CEO Self-Score:__________________ | |

ATTACHMENT C

# San Joaquin County Employees' Retirement Association

TO: (NAME)
Chief Executive Officer

FROM: (NAME)
Board Chair

DATE:

SUBJECT: (YEAR) CEO Performance Review

**Overview**

**Feedback**
The Board of Retirement reviewed your performance across six dimensions: Management, Leadership, Goal Attainment, Stakeholder Relations, Communication Skills, and Talent Management. The Board's scores (average and range) and representative comments are provided below.

1. Leadership
   Scores: Average: Range (high and low scores):
   Summarized Comments:

2. Management
   Scores: Average: Range (high and low scores):
   Summarized Comments:

3. Goal Attainment
   Scores: Average: Range (high and low scores):
   Summarized Comments:

4. Stakeholder Relations
   Scores: Average: Range (high and low scores):
   Summarized Comments:

5. Communication Skills
   Scores: Average: Range (high and low scores):
   Summarized Comments:

6. Talent Management
   Scores: Average: Range (high and low scores):
   Summarized Comments:

**Significant Accomplishments** (optional, delete section if not used)

**Suggestions for Further Development** (optional, delete section if not used)

**Conclusion**

Approved by the SJCERA Board of Retirement.

| | |
|---|---|
| ______________________________ | ______________________________ |
| (NAME), Board Chair | Acknowledgement of Receipt<br>(NAME), CEO |

# 2021 LEGISLATION

Last Updated: 07/29/2021

| BILL NO. | AUTHOR | DESCRIPTION | LAST ACTION DATE | LOC | SPONSOR |
|---|---|---|---|---|---|
| **Legislation Impacting SJCERA:** | | | | | |
| AB 361 | Rivas | This bill, **until January 1, 2024**, would authorize local agencies to use teleconferencing to hold meetings, without complying to Brown Act requirements for purpose of declaring or ratifying a local emergency, during a declared state or local emergency and other specified circumstances. The abbreviated procedures still require providing notice, posting the agenda, and allowing the public to access the meeting and address the legislative body. The intent is to improve public access to local agency meetings during COVID-19 and future emergencies. | 07/15/21 | **Senate**<br>Third reading | |
| AB 703 | Rubio | Executive Order N-29-20 suspended the Brown Act requirements for teleconferencing during the COVID-19 pandemic, provided that notice requirements are met and the ability of the public to observe and provide comments. This bill would remove the requirements of the Act particular to teleconferencing and allow for teleconferencing subject to existing provisions regarding the posting of notice of an agenda and the ability of the public to observe the meeting and provide public comment. This bill would declare Legislature's intent, consistent with the Executive Order, to improve and enhance public access to meetings into the future, and considering the digital age, by allowing broader access through teleconferencing options. | 05/03/21 | Assembly<br>L. Gov Comm | |
| AB 826 | Irwin | This bill would prescribe, for CERL, a definition of compensation earnable that would include any form of remuneration, whether paid in cash or as in-kind benefits, if specified requirements are met. This bill would state these provisions are declarative of existing law. | 07/14/21 | **Senate**<br>Third reading | Ventura County/SEIU |
| AB 845 | Rodriguez | This bill, until 1/1/2023, would create a presumption, applicable to the retirement systems that PEPRA regulates, that would be applied to disability retirements on the basis of a COVID-19-related illness. The presumption would apply to specified firefighter, public safety officer, and health care job classifications, or their functional equivalents, and to members in other job classes who test positive during a COVID-19 outbreak at their place of employment. | 07/23/21 | **Chaptered** | |
| SB 274 | Wieckowski | This bill would require a local agency to email a copy of, or website link to, the agenda or a copy of the agenda packet if the person requests that the items be delivered by email. If it is technologically infeasible, the bill would require materials to be sent by mail. | 7/8/21 | **Assembly**<br>Third reading | |
| SB 634 | L, PE & R Comm. | This bill would authorize county health officer's duly authorized representative to also advise retirement boards with advice on medical matters; correct an obsolete CERL cross-reference to a provision in the Education Code; ~~**repeal a CERL member's authority to complete a service credit by paying a lump sum**~~; authorize the Board to contract with a private practice physician for medical advice necessary to carry out disability retirement related provisions of CERL. This bill would also make changes to PERS and STRS that would not impact SJCERA. | 7/15/21 | **Senate**<br>Concurrence in Assembly amendments pending | |

| BILL NO. | AUTHOR | DESCRIPTION | LAST ACTION DATE | LOC | SPONSOR |
|---|---|---|---|---|---|
| **Other Bills of Interest:** | | | | | |
| AB 339 | Lee | This bill would, until December 31, 2023, require all public meetings of a city council or county board of supervisors that governs a jurisdiction of at least 250,000 people to include an opportunity for members of the public to attend via a telephonic option or internet-based option. | 07/14/21 | **Senate** APPR. Comm. | |
| AB 386 | Cooper | This bill would exempt from disclosure under CPRA regarding an internally managed private loan made directly by the PERS fund. | 07/13/21 | **Senate** Failed passage. Reconsideration granted. | |
| AB 473 | Chau | Technical, non-substantive changes to CPRA. | 07/08/21 | **Senate** Third reading | |
| AB 761 | Chen | This bill would allow the OCERS Board to appoint CEO, ACEO, CIO and provide that personnel appointed pursuant to these provisions would not be county employees, and instead be employees of the retirement system. | 06/28/21 | **Chaptered** | OCERS |
| AB 885 | Quirk | This bill would require State bodies that conduct meetings by teleconferencing to make the open session both audibly and visually observable, and to post the agenda at the designated primary physical meeting location where members of the public may physically attend the meeting and participate. | 03/25/21 | Assembly Re-referred to G.O. Comm. | |
| AB 890 | Cervantes | This bill would require the Boards of CalPERS and CalSTRS to report annually to the Legislature on the status of achieving objectives and initiatives regarding the participation of emerging or diverse managers responsible for asset management within the pension fund's portfolio. The bill requires the Boards to define "emerging manager" and "diverse manager" for the purposes of these reports. | 7/15/21 | **Senate** APPR. Comm. | |
| AB 1133 | Chen | This bill would state the intent of the Legislature to enact legislation that would create a hybrid retirement benefit, consisting of a DB plan and DC plan. | 2/19/21 | Assembly From printer | |
| AB 1354 | Grayson | Technical, non-substantive changes to PEPRA. | 02/22/21 | Assembly First Reading | |
| AJR 9 | Cooper | This measure would request the Congress of the U.S. to enact, and the President to sign, legislation that would repeal the Government Pension Offset and the Windfall Elimination Provision from the Social Security Act. | 07/15/21 | **Chaptered** | |
| SB 278 | Leyva | This bill would establish new procedures under PERL for cases in which PERS determines that benefits of a member or annuitant are based on disallowed compensation that conflicts with PEPRA or other laws under PERL. For retirees, the bill would require adjustment of benefits and for actives it would require crediting of contributions paid on disallowed earnings against future required contributions. | 07/07/21 | **Assembly** Placed on suspense file. | |
| SB 294 | Leyva | This bill would remove the 12-year limitation for service credit earned on an employer-approved compensated leave for PERS and STRS. | 07/08/21 | **Assembly** Third reading | |

| BILL NO. | AUTHOR | DESCRIPTION | LAST ACTION DATE | LOC | SPONSOR |
|---|---|---|---|---|---|
| SB 411 | Cortese | PEPRA prescribed various limitations on public employees, employers, and retirement systems concerning, among other things, work after retirement. PERL generally prohibits retired PERS members from working for an agency participating in the system without reinstatement in the system, unless that employment is otherwise specifically authorized. This bill would eliminate the above-described requirement that a person employed without reinstatement in a manner other than authorized by PERL be reinstated, instead providing that reinstatement is permissive. The bill would limit the circumstances pursuant to which retired members and employers are obligated to pay employee and employer contributions, which would have otherwise been paid, plus interest, to apply only to specified reinstatements. The bill would make conforming changes and make specific reference to the duties of employees and employers regarding reinstatement after retirement in violation of PEPRA. | 07/23/21 | **Chaptered** | |
| **Federal Legislation:** | | | | | |
| HR 1319 | Yarmuth | Called the "American Rescue Plan Act", HR 1319 was signed into law. Included in the $1.9 trillion aid package is pandemic-related aid to state and local governments. The final legislation makes clear that funds have to be used for COVID costs and economic recovery and cannot be deposited into a public pension plan, or used for lowering taxes, or paying down legacy obligations. | 03/11/21 | Public Law No: 117-2 | |
| HR 2954 | Neal | Called the "Securing a Strong Retirement Act of 2021", this bill would among other things increase RMD age to 75 from 72 over the next decade. | 05/05/21 | Ways and Means Committee | |

**2021 TENTATIVE State Legislative Calendar (Last Revised 12-21-2020)**

| | |
|---|---|
| Feb 19 | Last day for new bills to be introduced |
| Mar 25 | Spring Recess begins upon adjournment |
| **Jun 4** | **Last day for bills to be passed out of the house of origin** |
| Jun 15 | Budget Bill must be passed by midnight |
| Jul 16 - Aug 15 | Summer Recess upon adjournment provided budget bill passed |
| Sep 3 | Last day to amend bills on the floor |
| Sep 10 | Last day for each house to pass bills; Final Study Recess begins upon adjournment |
| Oct 10 | Last day for Governor to sign or veto bills. |

## 2021 CONFERENCES AND EVENTS SCHEDULE 2022

| EVENT DATES 2021-22 BEGIN | END | EVENT TITLE | EVENT SPONSOR | LOCATION | REG. FEE | WEBLINK FOR MORE INFO | EST. BOARD EDUCATION HOURS |
|---|---|---|---|---|---|---|---|
| Aug 22 | Aug 26 | Public Pension Funding Forum | NCPERS | New York, NY | $685 | ncpers.org | 8.75 |
| Sep 1 | Sep 3 | 2021 Fall Editorial Advisory Board Meeting | Institutional Real Estate Inc. | Laguna Beach, CA | | irei.com | |
| Sep 9 | Sep 9 | Investments Round Table | CALAPRS | Webinar | $50 | calaprs.org | 4 hrs* |
| Sep 17 | Sep 17 | Attorneys Round Table | CALAPRS | Webinar | $50 | calaprs.org | 4 hrs* |
| Sep 26 | Sep 28 | NCPERS Fall Conference | NCPERS | Scottsdale, AZ | $695 | ncpers.org | 10.5 hrs* |
| Sep 28 | Sep 30 | Virtual Principles of Pension Governance for Trustees | CALAPRS | Virtual Conference | $500 | calaprs.org | 9 hrs* |
| Oct 29 | Oct 29 | Virtual Trustees Round Table | CALAPRS | Webinar | $50 | calaprs.org | 4 hrs* |
| Nov 9 | Nov 12 | SACRS Fall Conference | SACRS | Hollywood, CA | $120 | sacrs.org | 11 hrs* |
| Nov 15 | Nov 17 | 2021 iREOC Annual Membership Meeting | Institutional Real Estate Inc. | San Diego, CA | | irei.com | |
| Mar 5 | Mar 8 | General Assembly 2022 | CALAPRS | TBD | $150 | calaprs.org | 10.5* |
| Mar 30 | Apr 1 | Advanced Principles of Pension Governance for Trustees | CALAPRS | Los Angeles, CA | $500 | calaprs.org | 9 hrs* |

** Estimates based on prior agendas*


# FINAL AGENDA[*]

## SUNDAY, AUGUST 22

4:00 pm – 6:00 pm Registration Opens

5:00 pm – 6:00 pm Welcome Reception

## MONDAY, AUGUST 23

7:30 am – 5:00 pm Registration

7:30 am – 8:30 am Continental Breakfast

8:30 am – 8:45 am Welcome & Opening Remarks
Hank Kim, NCPERS

8:45 am – 9:15 am Program Overview
Michael Kahn, NCPERS

9:15 am – 10:00 am *Is State and Local Debt Sustainable?*
J. W. Mason, City University of New York

10:00 am – 10:45 am *Are Public Pension Liabilities Sustainable? If Not, What Measures Can Be Taken to Stabilize Them?*
Louise Sheiner, Brookings Institution

10:45 am – 11:00 am Break

*Agenda subject to change. As of 7/6/2021.*
*The Forum will be hosted in accordance with all CDC and New York state COVID-19 safety practices and guidelines (i.e. masks, temperature checks, social distancing and any other requirements).*

11:00 am – 12:00 pm *Stabilization Funds/Trusts*
Maureen Toal, Public Agency Retirement Services
Brian Binkley, Vanguard

12:00 pm – 1:00 pm Networking Lunch

1:00 pm – 2:00 pm *How to Assess Sustainability of a Public Pension Plan?*
Eric Atwater, AON
Tom Sgouros, Brown University

2:00 pm – 3:00 pm *Strategies to Sustain Mature Plans with Negative Cash Flows*
Michael Buchenholz, JPMorgan
Sterling Gunn, CalPERS

3:00 pm – 3:15 pm Break

3:15 pm – 4:00 pm *Taking on Big Oil - CalSTRS Engagement with Exxon*
Sharon Hendricks, CalSTRS

4:00 pm – 4:45 pm *"Helicopter Money" and Other FRB Policies to Enhance* Sustainability of Public Pensions
Kristina Hooper, Invesco

5:00 pm – 6:00 pm Networking Happy Hour

## TUESDAY, AUGUST 24

7:30 am – 11:00 am Registration

7:30 am – 8:30 am Continental Breakfast

8:30 am – 8:45 am Welcome Back
Hank Kim, NCPERS

8:45 am – 9:45 am *Strategies to Stabilize Pension Plan Funding: Actuarial Perspective*
Gene Kalwarski, Cheiron
Sandy Matheson, Maine PERS

*Agenda subject to change. As of 7/6/2021.*
*The Forum will be hosted in accordance with all CDC and New York state COVID-19 safety practices and guidelines (i.e. masks, temperature checks, social distancing and any other requirements).*

| | |
|---|---|
| 9:45 am – 10:30 am | *Strategies to Stabilize Pension Funding: Investment Perspective*<br>David Wilson, Nuveen |
| 10:30 am – 10:45 am | Break |
| 10:45 am – 11:45 am | *COVID-19 and the U.S. Economy*<br>David Altig, Federal Reserve Bank of Atlanta |
| 11:45 am | Thank You and Closing Remarks<br>Hank Kim and Michael Kahn |

## THIS PROGRAM IS SPONSORED BY

CHEIRON

nuveen
A TIAA Company

*Agenda subject to change. As of 7/6/2021.*
*The Forum will be hosted in accordance with all CDC and New York state COVID-19 safety practices and guidelines (i.e. masks, temperature checks, social distancing and any other requirements).*


# SCHEDULE OF EVENTS

## SUNDAY, SEPTEMBER 26

3:00 pm – 6:00 pm Registration

5:00 pm – 6:00 pm Welcome Reception & Exhibition

## MONDAY, SEPTEMBER 27

7:00 am – 8:00 am Breakfast

7:00 am – 1:00 pm Registration

8:00 am – 1:00 pm Exhibition

8:00 am – 9:30 am Opening General Session

9:30 am – 10:00 am Exhibit Networking Break

10:00 am – 11:00 am THREE CONCURRENT BREAKOUT SESSIONS

**FINANCIAL TRACK**
**ACTUARIAL TRACK**
**LEGISLATIVE/LEGAL TRACK**

11:00 am – 11:15 am Exhibit Networking Break

As of 6/29/20. Schedule subject to change.

11:15 am – 12:15 pm THREE CONCURRENT BREAKOUT SESSIONS

**FINANCIAL TRACK**
**ACTUARIAL TRACK**
**LEGISLATIVE/LEGAL TRACK**

12:20 pm – 1:20 pm THREE CONCURRENT BREAKOUT SESSIONS

**FINANCIAL TRACK**
**ACTUARIAL TRACK**
**LEGISLATIVE/LEGAL TRACK**

5:00 pm – 6:00 pm Networking Reception

## TUESDAY, SEPTEMBER 28

7:00 am – 8:00 am Breakfast

7:00 am – 1:00 pm Registration

8:00 am – 1:00 pm Exhibition

8:00 am – 9:00 am THREE CONCURRENT BREAKOUT SESSIONS

**FINANCIAL TRACK**
**ACTUARIAL TRACK**
**LEGISLATIVE/LEGAL TRACK**

9:05 am – 10:05 am THREE CONCURRENT BREAKOUT SESSIONS

**FINANCIAL TRACK**
**ACTUARIAL TRACK**
**LEGISLATIVE/LEGAL TRACK**

10:05 am – 10:30 am Exhibit Networking Break

10:30 am – 11:30 pm THREE CONCURRENT BREAKOUT SESSIONS

**FINANCIAL TRACK**
**ACTUARIAL TRACK**
**LEGISLATIVE/LEGAL TRACK**

11:35 pm – 12:35 pm Closing General Session

As of 6/29/20. Schedule subject to change.

**SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**

**SUMMARY OF PENDING TRUSTEE AND EXECUTIVE STAFF TRAVEL**

| 2021 Event Dates | Sponsor / Event Description | Location | Traveler(s) | Estimated Cost | BOR Approval Date |
|---|---|---|---|---|---|
| Aug 22 - 26 | NCPERS Public Pension Funding Forum | New York, NY | Shick | $2,500 | 7/9/21 |
| Sep 1 - 3 | 2021 Fall Editorial Advisory Board Meeting | Laguna Beach, CA | Restuccia | $1,000 | N/A |
| Sep 17 | Attorneys Round Table | Webinar | Morrish | $50 | N/A |
| Sep 26 - 28 | 2021 NCPERS Fall Conference | Scottsdale, AZ | Shick | $2,340 | pending |
| Sep 28 - 30 | Virtual Principles of Pension Governance for Trustees | Virtual Conference | Goodman | $500 | N/A |
| Nov 9 - 12 | SACRS Fall Conference | Hollywood, CA | Keokham, Goodman, Nicholas, Restuccia | $8,230 | N/A |
| Nov 15 - 17 | 2021 iREOC Annual Membership Meeting | San Diego, CA | Restuccia | 1000 | N/A |

**SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**

**SUMMARY OF COMPLETED TRUSTEE AND EXECUTIVE STAFF TRAVEL**

| Event Dates 2021 | Sponsor / Event Description | Location | Traveler(s) | Estimated Cost | Actual Cost | Event Report Filed |
|---|---|---|---|---|---|---|
| Jan 27 | Meketa Fourth Quarter 2020 Market Review | Webinar | Nicholas, Praus | N/A | N/A | N/A |
| Feb 2 - 3 | NCPERS FALL Conference | Webinar | Shick, Herman, Ba | $900 | $900 | N/A |
| Feb 11 | CALAPRS Administrators' Roundtable | Webinar | Shick | $50 | $50 | N/A |
| Feb 19 | CALAPRS Attorneys' Roundtable | Webinar | Morrish | $50 | $50 | N/A |
| Feb 23 - 25 | 2021 Pension Bridge ESG Summit Virtual Conference | Virtual Conference | Keokham | N/A | N/A | N/A |
| Mar 8 - 9 | CALAPRS General Assembly | Webinar | Shick, Bassett, Nicholas | $850 | $850 | N/A |
| May 11 - 14 | SACRS Spring Conference | Virtual Conference | Keokham, Morrish, McCray, Restuccia, Shick | $120 | N/A | N/A |
| May 28 | CALAPRS Attorneys' Roundtable | Webinar | Morrish | $50 | $50 | N/A |
| Jun 22 - 23 | Moody's Commercial Real Estate Analysis Foundations | Virtual Conference | Ba | $1,946 | $1,946 | pending |
| Jun 25 | CALAPRS Administrators' Roundtable | Webinar | Shick | $50 | $50 | N/A |
| Jul 27 - 29 | Private Equity Exclusive 2021 | Virtual Conference | Ba | N/A | N/A | pending |

# San Joaquin County Employees' Retirement Association

August 6, 2021

TO: Board of Retirement

FROM: Johanna Shick
Chief Executive Officer

SUBJECT: Chief Executive Officer Report

**Strengthen Fund Stability**

RREEF II Proxy Voting Completed. After consulting with Meketa's Real Estate team, staff voted to consent to the amendments that RREEF proposed, given the proposed changes do not materially increase the risk levels to which SJCERA is exposed.

**Leverage Technology to Improve Accuracy and Efficiency**

Implement Year 1 of Five-Year Technology Plan.

*Contract with Vendor to Write new PAS RFP*. Linea Solutions is now under contract to evaluate the current system, develop requirements for the new system, write and publish the request for proposal and facilitate the selection of the software vendor. The project kick-off meeting is scheduled for Tuesday, August 10.

**Manage Risk**

Conduct Cyber-Security Audit. Cyber-Security Audit is in process. Interview sessions for vulnerability assessment have been conducted and IT vulnerability assessment interview data gathering has been initiated.

Conduct Actuarial Audit. Actuarial Audit is underway and Milliman is on schedule to present it to the Board of Retirement in September. Cheiron has already incorporated some of Milliman's suggestions in the Actuarial Valuation that will be presented at the August Board meeting.

Implement *Alameda* Decision. Assistant CEO Kathy Herman and Information Systems Manager Adnan Khan are scheduled to meet with Cheiron next week to develop an implementation plan for the corrective distributions owed to active members' as a result of the *Alameda* decision.

Assess Disaster Recovery Procedures and Identify Opportunities for Improvement. Northern Trust representatives, along with IT Systems Specialist, Jordan Regevig, completed the disaster recovery test to ensure retiree payroll can be processed based upon a previous month's file. The test included generating the payroll, and printing advice notices and checks. The full implementation was completed on July 26, 2021, and will be performed annually hereafter. This gives SJCERA the ability to replicate the previous month's payroll in case of an emergency. Finance Officer Carmen Murillo has confirmed additions and changes that occurred since the previous month's payroll (e.g., new retirees and changes to payments) can be processed through the County Auditor's office. Approximately 99.5 percent of retirees receive the same payment amount each month, making this an excellent back-up plan in the event of a disaster.

Research Enterprise-Wide Risk Management (EWRM) Methodologies. Management Analyst III Greg Frank has researched Enterprise-Wide Risk Management and is arranging for SJCERA's leadership team to participate in a 90-minute video training entitled Enterprise Risk Management 101. The topics include: Introduction to Enterprise Risk Management, Foundation Concepts, Risk Awareness, Risk Tolerance and Risk Appetite, Roles and Responsibilities and Where to Start. Following completion of the training, the team will determine next steps.

**Improve Operational Efficiency**

Research Providing Retiree Earnings Statements Electronically. Based on her research, IT Systems Specialist, Jordan Regevig reports the print vendor for earnings statements and checks is capable of issuing electronic earnings statements; however, Northern Trust (which processes the payroll, and sends the appropriate data to the print vendor), does not currently have this capability. Northern Trust reported they are considering implementing it at some point in the future. Jordan will continue to stay in contact with Northern Trust on this issue so we can develop an implementation plan if/when they have the capability to support it.

Improve Website Architecture and Functionality. Communications Officer, Freda King and Information Systems Manager, Adnan Khan presented their assessment of the vendors' bids and recommendations. I approved their recommendation, pending successful contract negotiation. Management Analyst III, Greg Frank confirmed we have sufficient funds in the budget to cover this year's estimated costs. Work will begin when the contract is finalized.

**Deliver Excellent Service and Support to Stakeholders**

Provide Stakeholder Communication and Education. Information Systems Manager Adnan Khan and Department Information Systems Analyst II Lolo Garza continue to partner with the County on its Cyber-Security Governance issues. At the County's quarterly IT meeting in July, Adnan gave a presentation on SJCERA's cyber security efforts. By participating in these meetings, we strengthen the relationship between the County's and SJCERA's IT departments, improve information sharing, and create the opportunity to implement mutually beneficial solutions.

Develop Quality Online SJCERA Benefit Videos

SJCERA's first video, *Retirement Benefit Calculator Tutorial*, is now posted on the Calculator page of SJCERA's website. SJCERA plans to send an email to active members announcing the video next week to encourage members to use the calculator for retirement planning. Congratulations to Communications Officer, Freda King, for ushering SJCERA into the video age!

Provide Excellent Customer Service.

Retirees are a fan of Payroll Technician, Mary Chris Johnson who regularly receives glowing comments on our customer surveys. In July, two retirees went beyond the typical electronic survey, to appreciate her. One retiree wrote a handwritten thank you card (monogramed with M for Mary Chis) and, another retiree left a detailed voicemail. Both appreciated Mary Chris for her longevity at SJCERA and being that trusted, familiar person throughout the years who answered their questions. In an era when, according to the Bureau of Labor Statistics, the typical employee stays at their job for just over four years, Mary Chris' 14.5 years assisting retirees with payroll and benefit questions is notable. Because SJCERA serves members during their working career and throughout their life in retirement, it's not unusual for members to be our customers for forty or more years. Having long-term employees who consistently serve them well throughout their membership clearly strikes a positive note. Congratulations and thank you to Mary Chris for her excellent, long-term customer service!

While our focus is most often on external customer service, internal customer service is also important. Here's what our staff is saying about each other:

"Andrea, thank you for your patience and positivity; spreading good cheer throughout the office."

"Jordan, thank you for your diligence in working with our print vendors."

"Bethany, great job learning years of service!"

"Alejandra, you are so much help! Thank you for always stepping up to help with reviewing items for payroll."

"Marta, thanks for the detailed follow through.  Appreciate it!"

Deliver Operations Timely and Accurately
*Interest Posted in Record Time!* In compliance with Government Code Section 31591, SJCERA credits interest semiannually on June 30 and December 31 to all contributions in the retirement fund that have been on deposit for six months immediately prior to such date. SJCERA's *Reserve* policy requires semiannual interest be credited to the Member Reserve before any other reserve using the rate which, when compounded, produces the annual actuarial assumed rate of investment return. The current assumed rate of return is 7 percent, and the semiannual rate is 3.4408 percent. Thanks to the efforts of Investment Accountant Eve Cavendar, Finance Officer Carmen Murillo and Information Systems Manager Adnan Khan, SJCERA completed the June 30 interest posting on July 12.  This is compared to August 1, 2019 and October 19, 2018. The enhancements to the Core 37 system and the diligence of staff continue to improve processes.

*Annual Financial Reports Completed and Submitted.* Congratulations to Finance Officer Carmen Murillo and Investment Accountant Eve Cavendar for completing the 2020 Comprehensive Financial Annual Report and the 2020 Popular Financial Annual Report. The comprehensive report has been submitted to the State Controller's Office as required, and both reports have been posted to our website and submitted for their respective Government Finance Officer Association (GFOA) awards. Carmen, who joined SJCERA on December 21, 2020, has accomplished a lot in her first seven months. In addition to learning her new job, and hiring and training three new staff members, she obtained a clean audit and issued both of these financial reports. Her focus, drive and determination are IMPRESSIVE!

**Maintain a High-Performing Workforce**
Kathleen Goodwin joined the SJCERA team on August 2 as our newest Retirement Technician.  Kathleen comes to us from the Sheriff's Department with more than 16 years of experience in administrative support and accounting.  Kathleen will be cross-trained in all aspects of the benefits side of our business but her main focus will be retiree payroll.  Welcome aboard, Kathleen!  We are so happy to have you.

**Managing Emerging Organizational Needs**
Identify and Begin Implementing a 2022 Strategic Planning Process. Mosaic Governance Advisors, SJCERA's strategic planning consultant, has begun the process of collecting input from trustees, staff, and employers that will be used in developing SJCERA's strategic plan. Individual interviews with trustees began the week of July 19, and staff and employer surveys were emailed the week of July 26. General Counsel will be included in the "burst" sessions with the leadership team to discuss vision, mission, and values; discuss the sentiment resulting from the staff surveys and trustee interviews; conduct SWOT analysis; and identify themes of critical issues for prioritization. We plan to incorporate input from SJCERA's consultants (General Investment Consultant, Fiduciary Counsel and Actuary) in our November off-site strategic planning meeting with the Board and staff leadership team.

Tier 2b Implementation Meeting. On July 27, Information Systems Manager Adnan Khan, Assistant CEO Kathy Herman and Management Analyst III Greg Frank conducted a Tier 2b Implementation meeting that including staff from the Superior Court, County Payroll, and County HR. Topics included reviewing the Tier 2b Base Pay Employer Notice and reviewing the new Tier 2b retirement eligible earnings codes.

On August 5, Information System's Manager Adnan Khan, Assistant CEO Kathy Herman and Management Analyst III Greg Frank conducted a follow-up Tier 2b Implementation meeting with Superior Court and their payroll vendor, ADP.

Tax Counsel's New Firm. Assistant CEO Kathy Herman, Management Analyst III Greg Frank and myself, met with SJCERA's tax counsel, Jenni Krengal, to discuss her transition from Reed Smith to Buchalter. We negotiated a new contract at the original price of the old contract and eliminated the three percent annual rate increase, resulting in a small savings. Reasons we decided to transition to Buchalter include:

- SJCERA is pleased with Jenni Krengal's work
- Buchalter has other attorneys and associates who focus on tax law
- Buchalter appears committed to retaining and building this area of practice

Trustee Orientation. Welcome aboard Trustee Moore and welcome back Trustee Weydert! Both Trustees Moore and Weydert attended new trustee orientation August 3 and 5 and heard presentations on roles and responsibilities, benefits, financial, investments and actuarial overview, and a review of the Bylaws and policies. They are ready to hit the ground running!

Returning to In-person Board Meetings. Information Systems Manager Adnan Khan and Department Information Systems Analyst II Lolo Garza are arranging for the sound system vendor to upgrade the equipment in the Board room to accommodate hybrid Board meetings, allowing trustees and the public to either attend Board meetings in-person or virtually. Timing of the upgrade will depend on the availability of electronic equipment.

Management Analyst III Greg Frank is coordinating modifications to the Board room in light of COVID social distancing protocols. In particular, he has obtained a bid for clear partitions between trustees from the same vendor used in the Board of Supervisors' chambers. The estimated cost is $7,500, and work is planned to be completed by the October meeting.

For more details regarding preparations for in-person Board meetings, please refer to Agenda Item 8.01: Update on Return to In-Person Board Meetings.

*Allum v. SJCERA.* The attorneys representing the Post-82 retirees in the Allum case filed a Petition for Review with the California Supreme Court, challenging the Court of Appeals' ruling in SJCERA's favor. The Supreme Court will review the petition and determine whether (or not) to grant the petition.

**Conclusion**

Another impressive, productive month! My hearty thanks to SJCERA's staff who make this all happen. None of it would be possible without their hard work and dedication. Their commitment to our mission and our members continues to impress me.

# THE MONITOR

JULY 2021 NCPERS NO. 7

The Latest in Legislative News


## Voluntary Medicare Buy-In for Retired First Responders

On June 24, Senator Sherrod Brown and Congressman Tom Malinowski reintroduced the Expanding Health Care Options for Early Retirees Act.

## View from the Top: An Interview with NCPERS President Kathy Harrell

NCPERS executive director, Hank Kim, sits down with new NCPERS president Kathy Harrell for a chat about her career and NCPERS goals.


*Also in this issue: Pension Funding Levels Rallied, Defying Predictions of Setbacks During COVID; Around the Regions features California, Delaware, Illinois, and Tennessee this month.*

# Pension Funding Levels Rallied, Defying Predictions of Setbacks During COVID

Public pension funding levels improved amid the pandemic, defying dire forecasts about state and local government finances, the Center for Retirement Research at Boston College reported.

The center said the aggregate level of funding among public pension plans rose to 74.7% in 2021, up from 72.8% a year earlier.

Two factors helped to bolster funding levels, the center said in its annual report on public pension funding. First, markets rebounded after falling sharply at the start of the COVID-19 shutdown in March 2020, lifting investment performance and resulting in better-than-expected returns for public pension assets.

Second, declines in state and local government tax revenue due to the economic fallout from the pandemic were less sharp than expected.

However, the findings were not all rosy. The center noted that 1.5 million state and local government jobs were cut between March and August 2020, for a 0.5% decline (to between 5.5% and 5.75%) in state and local government employment as a share of the U.S. economy.

This is similar to the decline experienced during the financial crisis of 2008 and 2009, but the COVID-19 job cuts occurred over a shorter span of time, according to the report.

This decline can negatively affect public pensions in two ways, the center said in its report. “The first impact is real, in that it can lead to less funding and higher subsequent required pension contributions. The second is more cosmetic in that reduced employment increases the required contribution rates by lowering the payroll base.”

“The decline in payrolls during COVID caused funded ratios and required contribution amounts to be only slightly worse than they would have been if payrolls had grown as expected,” the center found. “That said, the required contribution rate increased more noticeably due to the lower payroll base over which the slightly higher required contributions are now expressed.”

The center noted that approximately 100 major state and local government pension plans had reported their 2020 funded levels when it compiled its plan-by-plan projections.

Based on this information—by about half the pension plans in its Public Plans Database—the center concluded that the actuarially determined employer contribution rate will rise slightly, from 21.3% in 2020 to 22% in 2021.

Virtually all of the increase in the 2021 contribution rate stems from an increase in the amortization rate – the portion of the required contribution dedicated to paying down unfunded liabilities – from 14.4 to 15.0 percent of payroll," the report said.

Separately, MarketWatch noted that plans with March 31 fiscal year ends have posted strong double-digit returns. The New York State Common Retirement Fund returned 33.5%, its best fiscal year result ever, and the Arkansas Teachers Retirement System returned 38.8%. Fiscal year performance results for the majority of pension plans were being calculated at press time, as most plans operate on a July 1-June 30 fiscal year.

# Executive Director's Corner

## View from the Top: An Interview with NCPERS President Kathy Harrell

Kathy Harrell, who was elected president of NCPERS in June, remembers the day she threw her hat in the ring for a seat on the board of trustees of the Ohio Police & Fire Pension Fund. It was 2006, and she was in her nineteenth year as a police officer and her second year as president of the Cincinnati chapter of the Fraternal Order of Police. Her mentor had urged her to apply for an opening that had occurred when a trustee unexpectedly died.

Harrell was keenly interested and didn't want to risk her application going astray. So she hopped in the car for the 100-mile drive from her Cincinnati hometown to the state capital of Columbus, bringing her mother along for company. When they got to the OP&F office, she handed over her application to a clerk, who informed her, "We're not hiring."

The clerk assumed she was there for a job—a reasonable assumption given that there had not been a female trustee in OP&F's history. And that was only one of the ways in which the job was a stretch.

"I didn't have an investment background at all," Harrell recalls. What she did have was the willingness to engage in a dialogue with the professional investment staff hired by the trustees, weigh their recommendations, and reach informed conclusions, as trustees are expected to do.

In a recent conversation, Kathy and I talked about her trailblazing career as a woman in the police department and in the pension community, and discussed her aspirations for her tenure as NCPERS president.

**Q. Kathy, congratulations on becoming the first woman president to lead NCPERS. How did you get started on your career?**

**Harrell.** Thank you, Hank! It's a big honor. I got hired as a police officer in 1987 at a time when the Cincinnati Police Department was overwhelmingly male. Around 99% is not an exaggeration. There were not a lot of women, and there were no women in leadership. I did have a female colleague who'd joined the force about six months before I did. We were able to ride together and she really helped me out with safety issues and other factors that are unique to being a female police officer.

I retired in June after 34 and a half years on the force, and it is a completely different place today. There are female captains, lieutenants, assistant chiefs, high ranking African-American women. At every phase and stage, there are women in leadership.

**Q. How did you advance, being one of the few women?**

**Harrell.** The culture helped. Although I was in a minority, never once did I feel diminished. I had great assignments that helped me earn respect. I spent the majority of my career doing undercover drug work, then went back into uniform as a neighborhood officer. Along the way, I had a strong mentor, Bill Bennett, who encouraged me to seek election as president of an FOP Lodge. I won in 2005 and became the first woman in that position, which I held until 2015.

**Q. FOP Queen City Lodge No. 69 president is a big job. Why did you volunteer?**

**Harrell.** It was that desire to help people, which is what drives a lot of us into public service in the first place. I had a job that I loved doing, with benefits that many people who came before me fought hard to obtain for us. As I settled into my career as a police officer, I found myself talking to younger officers about the big picture issues of safety, benefits, and job security, and that led to my interest in a leadership role with FOP. I also talked a lot to retirees, and they urged me to run.

**Q. How did your role on the OP&F Board come about?**

**Harrell.** That was a direct outgrowth of serving as head of the FOP. I didn't have an investment background, but I knew pension benefits were critically important to our members. Once I became FOP president, I started regularly attending OP&F's open board meetings so I could understand their process for making decisions about our pensions. The more I learned, the easier it was to see myself in a board role. I was the first woman elected to the board, and it was a very satisfying way to serve my fellow public safety officers.

## Q. How did you become active with NCPERS?

**Harrell.** Education! As a member of the OP&F board from 2006 to 2011, I was sent to NCPERS training programs. I saw for myself that NCPERS delivers top-quality education to members. I was invited to join the NCPERS executive board in 2007, and in 2011 I became second vice president. From there, it was a straight line to the larger position I now occupy as president.

## Q. What are your hopes for your term as president?

**Harrell.** Right off the bat, I'm very excited to see us returning to in-person education. Coming together in person is so important to fostering our community. But I also want to see us continue with our successful remote education offerings, such as webinars. I'm so pleased that we were already expanding remote education in 2018 and 2019, because it served us very well when the pandemic struck in 2020. The key now is to keep the momentum going. We saw how important remote delivery of education was, and how many new people we were able to bring in and educate. We've got to get information to as many members as we can.

## Q. What advice do you have for other members?

**Harrell.** Get involved with NCPERS. Come to meetings. Attend webinars. Read our newsletters and research. We can help you be a more effective advocate for public pensions. As public servants, we all have a passion to serve people. You wouldn’t take on these jobs if you didn’t truly have it in your heart that you want to help others. You can help others in your profession by being an engaged member of NCPERS.

# Voluntary Medicare Buy-In for Retired First Responders

On June 24, Senator Sherrod Brown (D-OH) and Congressman Tom Malinowski (D-NJ) reintroduced the Expanding Health Care Options for Early Retirees Act, S. 2236 and H.R. 4148, respectively.

Coverage provided under this bill would be identical to the coverage provided under the existing Medicare program. Retirees would be eligible for tax credits, subsidies, and tax-advantaged contributions from their former employer or pension plan. Further, this bill specifically requires implementation in such a way that it will not negatively impact the existing Medicare program, beneficiaries, or trust fund.

The term "qualified first responder" is defined as a first responder (firefighter, police, or EMT as defined in the U.S. code) between the ages of 50-64 who has been separated from service as a result of retirement or disability. The legislation is a recognition that our nation's first responders generally retire well before the Medicare eligibility age of 65.

"Ohio firefighters and other first-responders wear their bodies out protecting our families and communities, and they should have access to affordable health care when their service comes to an end," said Senator Brown. "This is a simple solution for first responders who are forced to retire but aren't yet eligible for Medicare."

"First responders always come when we need them, and they have stepped up in truly heroic ways throughout the course of the pandemic," said Rep. Malinowski, who is a member of the Congressional Fire Services Caucus and the Congressional Law Enforcement Caucus. "This bill would ensure that when first responders retire, they have access to the quality, reliable health coverage they have earned and deserve."

NCPERS is among the national and state organizations that have endorsed this legislation. Others endorsers of the legislation are the International Association of Fire Fighters, the Fraternal Order of Police, the National Association of Police Organizations, the National Troopers Coalition, the International Union of Police Associations, the Ohio Police and Fire Pension Fund, the Professional Firefighters Association of New Jersey, and the New Jersey Firefighters Mutual Benevolent Association.

The bill directs the Secretary of the Department of Health and Human Services (HHS) to determine monthly premiums for individuals enrolled under this provision by estimating the average annual per capita amount for benefits and administrative expenses for all estimated enrollees under the section. Coverage would be considered minimal essential coverage, as required by the Affordable Care Act. The bill would prohibit states from buying Medicaid-eligible individuals into the program.

It would also instruct the Secretary of HHS to establish a Medicare Buy-In Oversight Board to monitor and oversee implementation, including the experience of individuals purchasing coverage. Representatives from industry, consumer advocates, and individuals representing the first responder community, would participate on the board.
Finally, the federal government would provide funding for states, nonprofit organizations, and nonprofit first responder organizations to engage in education and outreach activities. Funding would be prioritized in locations at risk of having no qualified health plans in the individual market.

"As early retirees, too many fire fighters and emergency medical personnel lack affordable healthcare before reaching the age for Medicare eligibility," said Edward Kelly, General President of the International Association of Fire Fighters. "As healthcare costs steadily increase, finding quality healthcare options during these gap years can be a real hardship. On behalf of the 324,000 members of the International Association of Fire Fighters, I am proud to support the Expanding Health Care Options for Early Retirees Act to allow fire fighters and EMS personnel the right to buy into Medicare at age 50, and thank Representative Malinowski for its introduction. I urge its passing as this bill will close the healthcare gap facing our retirees and provide certainty and peace of mind for our members - allowing them to enjoy the dignified retirement that they earned."

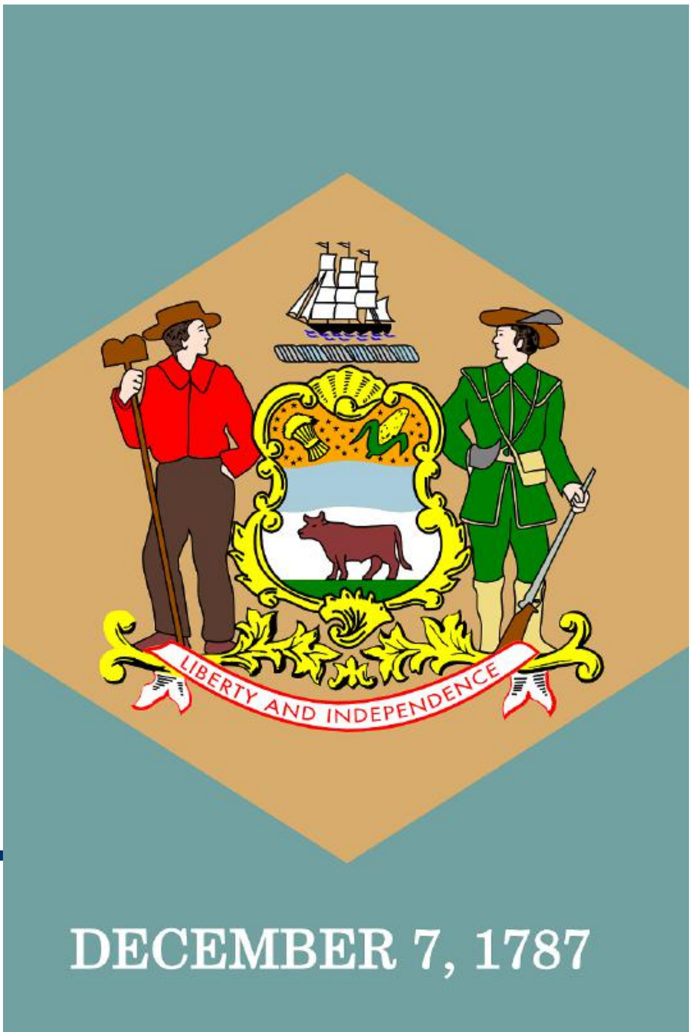
“We believe this legislation addresses a very real and critical need for the men and women who served their communities as public safety officers by providing them with a bridge of coverage following their retirement until they reach the age of 65,” said Pat Yoes, National President of the Fraternal Order of Police.

We applaud Senator Brown and Congressman Malinowski, both of whom recently received NCPERS’ Legislator of the Year award, for their continued commitment to the public safety community and their leadership on this important issue.

Tony Roda is a partner at the Washington, D.C. law and lobbying firm Williams & Jensen, where he specializes in federal legislative and regulatory issues affecting state and local governmental pension plans. He represents NCPERS and statewide, county, and municipal pension plans in California, Colorado, Georgia, Kentucky, Ohio, Tennessee, and Texas. He has an undergraduate degree in government and politics from the University of Maryland, J.D. from Catholic University of America, and LL.M (tax law) from Georgetown University.

# Around the Regions

This month, we will highlight California, Delaware, Illinois and Tennessee.




## Northeast: Delaware

Delaware has joined the growing list of states that are considering offering workplace retirement savings programs for private-sector employees, but in a significant twist, it may require that employees opt into the program.

Bipartisan legislation has been introduced in the Delaware House of Representatives to create the Delaware EARNS program, short for "Expanding Access for Retirement and Necessary Savings." The bill, H.B. 205, originally provided for automatic enrollment, like other so-called auto-IRA plans.

However, it was amended in the House Appropriations Committee on June 21 to require that employees must affirmatively opt in to the program. Amendments also clarified that employees aren't covered until they've been with their employer for at least 90 consecutive days.

In announcing the program in May, Delaware State Treasurer Colleen Davis had emphasized the importance of the auto-enrollment feature. “Workers benefit immediately by being automatically included in a retirement plan,” she said. “Programs like Delaware EARNS that use auto-enrollment have a 92% participant rate compared to 61% for plans with just a voluntary rate,” she explained before the amendment was made.

According to Davis, nearly 54% of Delaware businesses don’t offer employees a way to save for retirement, leaving 200,000 without this benefit. Payroll deduction is widely recognized as the most effective method to encourage long-term savings.

Delaware EARNS would be modeled the SecureChoice plan advocated for more than a decade by NCPERS. Businesses with more than five employees would be required to participate in Delaware EARNS through a simple payroll process; the state Treasurer’s Office would take it from there.

The proposed legislation, H.B. 205, was introduced May 20 and sent to the House Appropriations Committee on June 10, where it was been amended twice. On June 11, language was added to clarify the responsibilities and authority of the program board.

## Midwest: Illinois

The Illinois General Assembly on June 29 sent legislation to revise pension funding for Chicago's park employees to Governor J.B. Pritzker for his signature.

House Bill 417 authorizes the Chicago Park District to issue bonds totaling $250 million, in increments of no more than $75,000 per year, to decrease unfunded liabilities of the Park Employees' Annuity and Benefit Fund of Chicago, known as the Park District pension. The fund cannot be used to defray the employer contribution.

The Park District pension's year-end 2020 actuarial valuation and review, conducted by Segal and published in May, concluded that employer contributions to the fund "are insufficient to prevent insolvency," and said that without a change its assets could be depleted within eight years.

The legislation also establishes a new schedule for the Park District's required annual contributions to the fund to gradually cover 100% of total accrued liabilities over 35 years, starting with a $40 million contribution no later than November 1, 2021.

It also establishes a pension contribution equal to 9% of salary for employees who join on or after January 1, 2022, versus 7% for those hired previously.

## South: Tennessee

The Tennessee General Assembly voted to allocate $250 million to the state's pension system in the fiscal year that began July 1.

The one-time contribution to the Tennessee Consolidated Retirement System State and Higher Education plan is the largest single contribution in the history of TCRS.

TCRS is frequently cited as one of the best-funded public pension plans in the nation, in large part because the state government has consistently honored its financial obligations. The pension plan serves approximately 369,000 active and retired state, higher education, and participating local government employees, as well as K–12 public teachers.

"It is impossible to overemphasize the importance of this year's $250 million appropriation to the state's pension fund," said Lt. Governor Randy McNally. "One of the linchpins of our state's nearly immaculate Triple A credit rating is our fully funded retirement system.

Last fiscal year, TCRS paid $2.75 billion in benefits to 146,382 retirees across the state, over 92% of whom remain in Tennessee, the Overton County News reported. The retirement benefits paid by TCRS have a significant economic impact in all 95 counties.

# West: California

The Ninth Circuit Court of Appeals has rejected the Howard Jarvis Taxpayers Association's petition for a rehearing before the full court of its unsuccessful bid to strike down the California Secure Choice Retirement Savings Program.

A three-judge panel on June 15 denied the petition, noting that no judge requested a so-called en banc rehearing. The decision lets stand the Ninth Circuit's May 6 determination that the CalSavers program for private-sector workers is not governed or pre-empted by ERISA, the federal law on employee benefits. CalSavers was created in 2017.

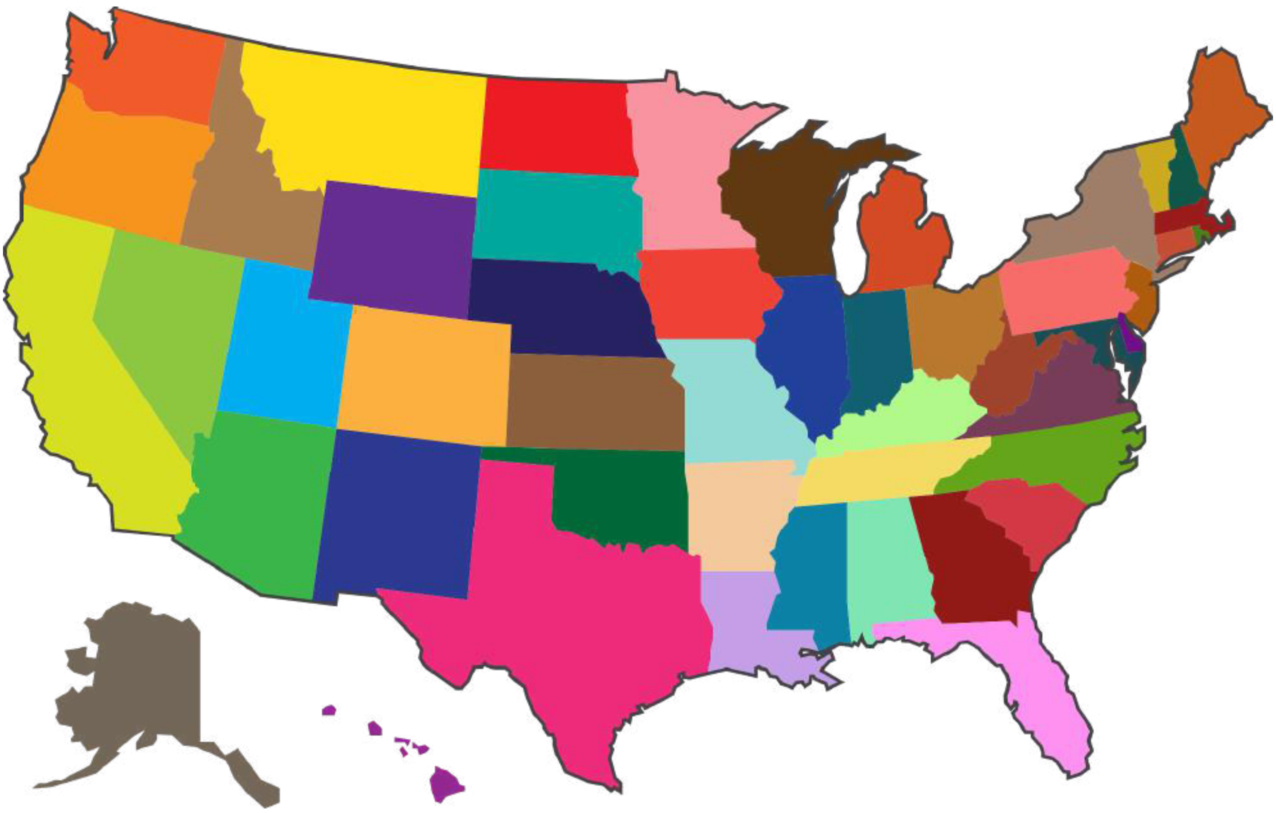
Federal appeals cases are heard by panels of three judges, and appellants can request a rehearing by the full court. In the case of the Ninth Circuit, an en banc hearing involves 11 of its 29 active judges including the chief judge. The process is regularly used for unusually important or complex cases.

Having failed in its request for a rehearing, the Howard Jarvis Taxpayers Association's remaining option would be to appeal the decision to the U.S. Supreme Court. As of press time, the association had not made any public statements as to its intentions.

The CalSavers board discussed the litigation during a 20-minute closed session at its June 22 board meeting, but took no action, according to board meeting minutes.

Separately, CalSavers on June 30, 2021, passed a milepost: California companies with 50 or more workers were required to register to facilitate enrolment by that date if they do not already sponsor a retirement savings plan. The next milestone occurs on June 30, 2022, when companies with five or more workers must register. The deadline for companies with 100 or more workers to register was September 30, 2020.

More than 200,000 accounts, representing 11,000 employers, were enrolled in CalSavers as of May 31, with combined assets of $77.2 million.



# Calendar of Events 2021

## July

July 13
Webinar: Demystifying Operational Due Diligence- Due For A Change? With Aon

## August

August 22- 24
Public Pension Funding Forum
New York, New York

## September

September 26-28
FALL Conference
Scottsdale, Arizona

The Monitor is published by
the National Conference on Public Employee Retirement Systems.
Website: www.NCPERS.org | E-mail: amanda@ncpers.org

Los Angeles Times

# Pandemic caused many boomers to retire. What that means for the economy — and everyone else

The L.A. County Department of Public Health holds a COVID-19 vaccination clinic in late March for residents at Whispering Fountains Senior Living Community.
(Irfan Khan / Los Angeles Times)
By Don LeeStaff Writer
July 8, 2021 4 AM PT
WASHINGTON —

Even with declining numbers of young Americans entering the job market and the Trump administration's crackdown on immigration, U.S. employers were able to count on the last of the baby boomers to prevent labor shortages and soaring wages.

But the COVID-19 pandemic has hit that long-standing reality like a hand grenade.

And the effects will probably be felt throughout the economy for years to come, in recurrent labor shortages, pressure for higher pay, problems for Social Security and private pension funds, and a host of other areas.

When the health crisis struck early last year, workers of all ages were laid off by the tens of millions. But the result of the pandemic-induced recession is turning out to be vastly different for older workers than for their younger counterparts.

Younger workers — regardless of the fattened jobless benefits provided by Washington on a temporary basis — now face strong pressure to resume their interrupted careers relatively quickly. And recent jobs numbers reflect that pressure to get back to work.

Not so among older workers.

In large numbers, many have reassessed their finances and other factors and have concluded that they are about as well off retiring now as they would be going back to work and soldiering on for a few more years.

Right now, it looks as though many of these older workers will never come back.

"We are now, in this century, in a period of reduced immigration to the U.S. We are also in a period of lower fertility," said Richard Fry, a senior researcher at the Pew Research Center specializing in the economy and education. "So the fact that boomers were staying in the labor force has been an important contributor to economy-wide growth.

"Whether this is a permanent exit from the labor force or temporary we don't know," he added. "But it's really an important question."

For some older workers, it's a quality-of-life issue: They have found being at home fulfilling. And retirement incomes go further than many expect without job-related expenses of transportation, lunches and such.

Others have been nudged toward earlier retirement by medical, family and other personal reasons.

"This is a big shock that's irreversible for a lot of people," said Patrick Button, an economics professor at Tulane University who has written extensively on age discrimination and the labor market.

Even as pandemic restrictions have been lifted and businesses are struggling to find enough workers to fully reopen, the number of adults 55 and older who are participating in the labor force — that is, working or looking for work — has barely budged this year and is actually down from last fall, according to government statistics.

That's in sharp contrast to people in their prime working years, ages 25 to 54, who have made significant strides in getting back into the job market.

The pandemic did not accelerate Monique Hanis' retirement, but it certainly crystallized her plans.

"I think it allowed for thoughtful time and conversations. It really solidified the decision that I was ready," said Hanis, who this week turned 60 and also left her job as senior director of communications at Advanced Energy Economy, a business association in Washington.

For Hanis, the pandemic spurred a broad rethink about life, health and priorities.

"You can't always get your healthiest time back," she said, "and as we get older, that becomes a concern, to be able to physically do the things that we want to do, to travel."

Her husband, Doug Warnecke, retired two years ago at age 66. "After juggling two really demanding careers," Hanis said, "raising kids through all of this — I took six weeks off to have the babies and I was back to work — you know, all the carpooling and sports teams and all the stuff you do, and we're just like, 'It's time to have fun. Let's play.'"

To be sure, many older workers don't have adequate savings and retirement funds to stay away from jobs. Others want the stimulation of work.

"I never, ever in a million years saw myself retiring at all. I'm very work-oriented, and so for me, just not doing anything itself drives me up a tree," said Christine Garza, 68, a former health educator in Charlottesville, Va., who has been taking part-time and temporary assignments in recent years.

Still, it's likely the momentum among older workers has shifted, a change from the last two decades, when they remained on the job and reversed a century-long trend toward earlier retirement, said Courtney Coile, a Wellesley College professor who studies the economics of aging and health.

What kept people working longer had to do with better health and education, the increased role of women in the job market, shifts in company retirement plans and especially changes to Social Security that incentivized delaying retirement, she said.

In the last decade just before the coronavirus outbreak in the U.S., employment among people 55 and older grew on average by 1 million a year, compared with about 750,000 for prime-age workers. The fastest growth rate was among those 65 and older.

But since last fall, after an initial burst of recovery, employment for older workers has plateaued.

Right now, the change is aggravating the labor shortage. There are record number of job openings, and more people — young and old — have quit their jobs and are on the sidelines.

Even before the pandemic, labor trends were not looking good for employers. With Americans having fewer babies, the working-age population is projected to grow over the next 10 years at a fraction of recent decades. “If a bigger number retire than in the past, that’s a big potential crash for the labor force,” said William Frey, a demographer at the Brookings Institution.

The long-term consequences of a pullback by baby boomers cut deep: Their smaller contribution to the labor force suggests slower economic growth ahead for the U.S. and potentially negative effects on the economy’s overall productivity.

Reduced availability of older workers will complicate the Federal Reserve’s ability to steer interest rate policy and manage inflation.

There are also huge implications for public finances: Having fewer workers is likely to mean reduced tax revenues, including payments into Social Security.

In the first quarter of this year, 30.3 million baby boomers reported they were out of the labor force because of retirement, according to the Pew Research Center’s analysis of government data.

That is 2.7 million more than in the first quarter of 2020, a much bigger increase than the average growth of roughly 2 million retired boomers annually over the last decade.

There hasn’t been an accompanying jump in Social Security claims — one can start drawing benefits as early as 62 — but experts suspect that may be partly because people, up to now, have been making do with savings and generous forms of pandemic aid, including expanded unemployment benefits and several rounds of relief checks.

The Pew center’s Fry worries about the solvency in the long run of retiree programs such as Social Security. As more seniors retire, he said, they’ll draw down pensions and retirement plans, and that has consequences for the price of financial assets.

There are reasons to think the sharp break in older workers’ labor participation could be a lasting trend.

As of June, 55% of unemployed workers who are 55 or older have been jobless for more than six months, compared with 36% for all other working age groups combined. And the longer a person is unemployed, the harder it is usually to return to the job market.

For workers 65 and older who were unemployed in June, half have been out of work for more than 46.5 weeks. For all workers, the median length of unemployment was 17.6 weeks.

Many of them face barriers to returning. The AARP says more people are seeing age discrimination in employment.

And, despite the overall shortage of workers, experts say they haven’t seen companies generally stepping up their efforts to recruit or retain older workers, focusing instead on race and income disparities.

Renée Ward, founder of Seniors4Hire, a Huntington Beach-based organization that tries to match older workers with employers nationally, said some businesses that were trying to come back from the pandemic and desperate to fill openings were targeting seniors.

Many of the jobs posted on her site are for such work as hotel clerks, building receptionists, tour guides, security guards, nannies and caregivers. Whether they provide enough pay, flexibility or safety protections to draw older workers is another question.

“This group will be much more resistant to returning to employment,” said Jeffrey Korzenik, chief investment strategist at Fifth Third Bank in Tampa, Fla., who has been closely following the labor market and its implications for the economy.

And if fewer older workers return, he added, there will be less mentoring and handover of knowledge — a problem for manufacturers and other industries that are concerned about losing a generation of experienced workers.

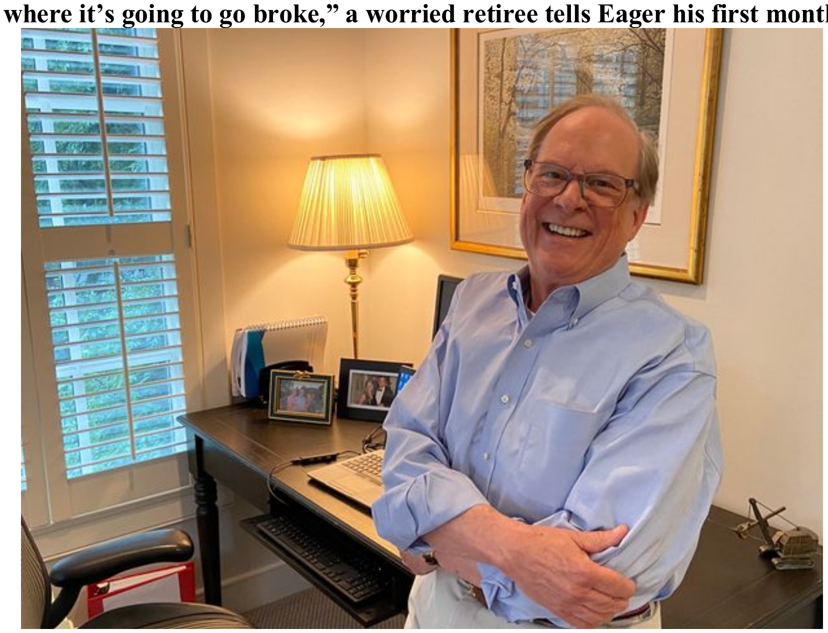
“We have a more dynamic economy when you have more people in the workforce who are productive and more robust consumers,” he said. “But there’s no sign they’re coming back.”

Market Extra

# He runs the worst-funded public pension in the country. Here's his 'good news' story

Last Updated: July 13, 2021 at 4:58 p.m. ET First Published: July 13, 2021 at 2:25 p.m. ET
By **Andrea Riquier**

**"I'm reading in the paper where it's going to go broke," a worried retiree tells Eager his first month on the job**



**David Eager, executive director of Kentucky Public Pensions Authority. Credit: David Eager**

It's a safe bet that many people, seeing their work described in print as "among the worst in the country," might cringe and try to avoid the media.

But David Eager has spent the past five years running the Kentucky Public Pension Authority, with an eye to turning the system around. A big part of his work has been increasing transparency and educating people about the nitty-gritty of public pensions, how Kentucky got into the mess it's in, and how it's going to get out.

Eager reached out to MarketWatch to talk more about his work. "There's a good story to tell here, but it doesn't get heard that often, and it's going to take a long time for it to play out," he said.

Public pensions often are referred to as "deferred compensation:" public-sector employees take lower salaries than they'd receive in the private sector in exchange for some certainty in retirement. It's up to their employers — states, cities, school districts, transportation agencies, and so on — to provide that certainty. Kentucky has failed at that mandate on its roughly $12.8 billion pension system for more than a decade, as legislators declined to pay even half of what was needed to keep the system whole.

Eager spoke with MarketWatch about some of the policy changes he's helped nudge the state to implement, what people often get wrong about pensions, and more.

The interview below has been edited with an understanding that pension-speak often includes a fair amount of jargon and policy specifics.

**MarketWatch:** What did you think when you see Kentucky's pension systems described as one of the worst-funded in the nation?

**David Eager:** I thought it was accurate. No question it was accurate. The facts were straight. It's unfortunate we are where we are, but for the past five years we have been working to change the benefits to get the system going in the right directions.

**MarketWatch:** What in your background prepared you to take this on?

**Eager:** I don't take a whole lot of credit for this. We have a nice relationship with the legislature. It's improved significantly. There's just been a lot of mistrust. Some of it may have been deserved and a lot wasn't. I think we have become so transparent. That has helped. We've listened, we've had meetings, we've explained things. And the legislators have become more knowledgeable.

My background, I spent about ten years at Gerber as the contact with the actuary, so I got an education in actuarial science. I got to really understood the financial dynamics of pension funds.

I spent a number of years as a consultant helping pension funds with asset allocation, picking their managers, I was a consultant to the Washington, D.C. pension system when the federal government set it up. I got to understand the politics of public pension funds. I started a firm that consulted to pension funds and did market research and we spent a lot of time inside firms, over 100 firms from as big as BlackRock to as small as startups.

I was asked to go on the board of the (Kentucky) retirement system in 2016 and then the executive director announced he was retiring earlier than they thought and there was no transition plan. I stepped in and found it extremely rewarding, very interesting, very challenging. I've done it permanently since 2018. I have found the political aspect of it, dealing with the governor's office and legislature, is fascinating. I've always been interested in politics and history and to see it in action is interesting to say the least. To see that you can effect positive change.

I tell the story, in September 2016, my first month on the job, I went to a retirees' meeting, and after I talked, this woman came up to me and said, 'I'm scared. I have no money, my only source of income is the retirement from the pension fund and I'm reading in the paper where it's going to go broke,' and she started to cry.

So I say to our staff, we have 130,000 retirees who once a month go out to their mailbox and get a check for their rent, their groceries, their haircut. They depend on us. It is tremendously rewarding to know that you have an impact like that on people. That's been a real satisfying element of this job. When I was consulting to money management firms, I spent that 24 years making rich people richer. I'm happy I had a chance to do this.

**MarketWatch:** Can you take us through your efforts to get the plans back on track?

**Eager:** Senate Bill 2 of 2013 created a (third tier of employees). Tier 3 is a cash hybrid plan. *(MarketWatch note: "hybrid" plans try to meld some characteristics of defined-benefit plans, like pensions, with some characteristics of defined-contribution plans, like 401(k) plans. While they do remove some funding variability for employers, they have drawn some criticism for not being as generous to employees or as certain for employers as proponents say.)*

Any new employee in the system goes into the cash hybrid plan. I would describe it as meaningfully better than a 401(k) plan. The cash hybrid guarantees a 4% return each year over a five-year smoothing period. At the end, employees can take the money or an annuity. It doesn't have the flexibility of people picking their options — the investment options are picked by the system.

The second part of SB 2 required that the state budget pay the full ARC *(MarketWatch note: ARC stands for "actuarially required contribution")*. We had had a period 12 years in a row where the state didn't pay the ARC, and on average only paid about 40%. That's a major contributor to how we got to be so poorly funded.

The third thing was coming to the realization that the assumptions we were using were not conservative enough. In 2017, the board of trustees of the retirement system reduced the return assumption on all 5 pension plans. That required a much higher ARC. *(MarketWatch note: if you assume investments will return less, you must contribute more to come to the same outcome. The Kentucky state plans now assume investment returns of roughly 5-6%.)*

(In some cases) the employer contribution rate went from 49% to 73%. If you're going to get out of a 14% funded position you need to have a substantial contribution. It's painful. Raising taxes is not popular and there's a pretty strong commitment not to raise taxes. So if the pension fund, all of a sudden, needs an extra dollar, it's got to come from someplace else. I give the legislature and two or three governors a lot of credit for making hard decisions. They were dealt a bad hand. Where do you cut? They've had to make really hard decisions and I give them a heck of a lot of credit for doing it.

You have to fix a crumbling bridge this year, but you don't have to fix a crumbling pension immediately, it can be next year. But if you don't fix it, the day of reckoning comes. I never want to see a time when we have to take a big bite like we did, going from 49% to 73%. Our state police contribution rate is 146%. That means if someone makes $50,000, they're putting in nearly $75,000 for the benefit. We will be watching more frequently, and if there are changes to be made, they'll be made in smaller increments.

House Bill 8 was passed in 2021. *(MarketWatch note: some state agencies had been trying to avoid paying pension benefits by outsourcing their jobs, which pushed a disproportionate amount of the pension burden onto others. The 2021 legislation allocated a more equitable amount of the entire unfunded liability as of 2019 to every participating agency, to be paid down over 30 years.)*

The hole (unfunded liability) is $16.5 billion. You're going to pay your portion of that for the next 30 years. We've effectively assigned you a mortgage.

**MarketWatch:** I bet people loved that.

**Eager:** The bad guys (figuratively), that should have been paying more, are going to pay more. And the (departments) that were paying more than their share don't have to now. Most (departments) went down. The challenge for the legislators who came up with the bill and the budget director and governor was, how do we take care of those people who will have real dramatic increases? They had to be provided with some subsidies almost on a case-by-case basis.

We're on track. We've got the train on the track now. There's no assurance that trustees of the system won't decide sometime in the future that the assumptions ought to be more liberal, but I remind them all the time: you are fiduciaries for the members, not the employers. I'm sorry, but they have to pay even if it pains them.

**MarketWatch:** You and I have talked a bit about how the average American who doesn't have a public pension doesn't really understand them, doesn't really understand the system. What are some of the biggest misconceptions or misunderstandings you encounter? What do you wish people understood?

**Eager:** I have people say, why didn't you pay the full ARC? I say that's not our decision, that's a legislative decision. There's a lot of misunderstandings. There's still distrust. We had an issue many years ago, maybe 10-11 years ago with a placement agent. That's someone who starts a firm and is the salesperson for maybe three or four firms competing against each other. We had someone who said he would help us find investment firms. Unbeknown to us, he was marketing these firms, he would get a commission for getting them clients. We lost a lot of credibility. Understandably.

**MarketWatch:** There has been some scholarship in recent years that suggests it's not necessary to fully fund pension systems — that is, to make sure 100% of the money needed for all current employees and retirees for a 30-year period is on hand, mainly because public pension systems and their sponsors will never go out of business. How do you think about the right level of funding?

**Eager:** I think the right funded level is 100%. You've created a liability. You might not go out of business but you've created a liability. I was asked that same question in the legislature and I said 100%.

# Germany Allows Crypto Investments With Institutional Funds

By Savannah Fortis
8 July 2021, 11:38 GMT+0000
Updated by Kyle Baird
8 July 2021, 11:39 GMT+0000
Share Article
In Brief

- Big investors in Germany can now allocate institutional funds to crypto investments.
- Regulators in Germany still have concerns over crypto activities.
- This comes shortly after Coinbase began services in Germany.
- promo

  Gravity Dex Protocol: **Bringing DeFi to Cosmos**

The Trust Project is an international consortium of news organizations building standards of transparency.

**German regulators have okayed institutional funds to be allocated toward crypto investments, according to new policies**

Up to one-fifth of funds targeted at institutional investors can now be allocated toward cryptocurrencies. German regulators still advise caution to asset managers when dealing with crypto and such volatile digital assets.

The new rules came into effect at the beginning of the month. They align with Germany's Federal Financial Supervisory Authority's (BaFin) attempt to neutralize its stance on crypto investments. In the past, the financial watchdog stressed its concern over the risky and volatile nature of the crypto market. This new development intends to show that the regulator nonetheless wants to encourage the future growth of emerging financial technology.

In Germany, assets held in the specialized funds called Spezialfonds, are the ones to which the new regulations apply. These funds are exclusive to institutional investors and not the general population. According to Germany's trade association, BVI, this asset class hovered around two trillion euros during the first quarter of the year.

Now that these funds have the potential to be converted into crypto assets, this could potentially shift billions of euros into the crypto market. Nonetheless, regulators, officials, and representatives still have hesitations towards the ever-shifting crypto space.

Klaus Stiefermann, the managing director of a German association for corporate pension plans, commented to the Financial Times that companies processing such pension schemes "will proceed very cautiously when assessing cryptocurrencies."

# Germany Continues Crypto Friendly Trends

The new policies on fund allocations follow another big announcement made by Coinbase at the end of last month. The cryptocurrency exchange behemoth finally gained approval to offer crypto custodial services in Germany.

This marked Coinbase as the first cryptocurrency exchange BaFin allowed a crypto custody license.

Germany also came out with a series of moves, friendly to the future of blockchain development within the country. A select group of high school graduates will have their graduation diplomas issued using blockchain technology.

Additionally, last month German lawmakers allowed companies to launch blockchain-backed debt securities. While the country's lawmakers may still be skeptical, these cryptocurrency and blockchain forward moves are steps to keep Germany a global leader in innovation.

### Disclaimer

Institutional Investor

PORTFOLIO

Jessica Hamlin

# Love It or Hate It, Institutional Investors Move Further Into Digital Assets

A new survey shows seven out of 10 institutional respondents expect to buy digital as too-distant future.

July 20, 2021

1,100 global institutional investors from Fidelity Digital Assets, seven in 1 respondents expect to buy or invest in digital assets in the future. Out of respondents interested in digital assets, 90 percent expect to allocate sor portfolio to digital assets in the next five years. Fidelity Digital Assets, wh custody and execution for the asset class, conducted the study with Coal Greenwich and the Fidelity Center for Applied Technology between early 2020 and early April of this year.

Among the 408 U.S. investors surveyed, 33 percent of institutions hold in digital assets, up slightly from 27 percent in 2020.

"There's an overall positive sentiment about digital assets," Christine Sar sales and marketing at Fidelity, told *Institutional Investor*. "By 2026, we e assets to be even more mainstream."

Currently, 52 percent of all survey respondents, across Asia, Europe, and invested in digital assets.

But institutional investors, not surprisingly, have some concerns about t world. According to the survey, respondents cited price volatility as the p barrier to adoption of digital assets within their portfolios. Respondents concerned about the lack of transparency and availability of tools and ar gauge the value of cryptocurrencies and assess potential market manipu

Jim Neumann, CIO of Sussex Partners, a hedge fund advisory firm, agree volatility deters some of his firm's clients from investing in digital assets also said competition, particularly from governments, is another concern institutional clients looking into digital assets.

"More so on the adoption front, there's a lot of concern about competitio competition from sovereigns," he said. "If the U.S. or China, or whoever, Despite a dynamic list of issues and concerns, investors are adopting dig their portfolios. Eight in 10 institutional investor respondents believe dig should be a part of a portfolio. With increased adoption, survey responde would like to see more services, such as increased access to electronic tra platforms and market and data analytics. Respondents also called for inc and security of crypto assets.

Among survey respondents, those in Asia had the strongest belief that di an important part of institutional portfolios. In Europe, 77 percent of inv believed crypto deserved a place in portfolios. In the U.S., 69 percent of i digital assets were important.

"Last year was the first year we saw what we believe is a surprising streng U.S. numbers," said Sandler.

From Neumann's perspective, region isn't the only factor that divides ins investors on the digital asset class. For his clients, the divide is also gene Neumann said his more "progressive, younger, tech-savvy" clients have on the asset class while more seasoned investors have a harder time getti space.

Investors who grew up with technology understand the transformative p tech innovations underlying cryptocurrencies, while investors with long the industry have attempted to use decades-old tools and measures that other asset classes to assess digital assets.

"They tend to try to assign some kind of fundamental analysis to what th and they have a tough time with that, particularly in the digital currency said.

While cryptocurrencies dominate the headlines, both Neumann and San

PORTFOLIO

**Crypto Hedge Funds Are Optimistic About Bitcoin. The Rest of the Industry Is Not Yet Persuaded.**

Alicia McElhaney May 24, 2021

CORNER OFFICE

**Novogratz's Galaxy Digital Inks Crypto Deal With Vision Hill**

Alicia McElhaney May 24, 2021