AGENDA

RETIREMENT BOARD MEETING

REGULAR MEETING
April 13, 2022, 9:00 a.m.

The Board of Retirement will hold its meeting via teleconferencing as permitted by Government Code Section 54953(e). The meeting is accessible telephonically at 669-900-6833, Webinar ID: 847 4523 2628, Passcode: 218632, or via the web at: https://us06web.zoom.us/j/84745232628?pwd=Uk94bE9MRDZBc2IrWlRtWmY5TGw3dz09 Passcode: 218632

Persons who wish to address the Board of Retirement during public comment may call in during the meeting by dialing the phone number and passcode above. Access via Zoom is also available at the weblink above. To indicate you wish to speak during public comment, please select *9 on your phone or "raise your hand" in the Zoom app.

Public comments are limited to any item that is within the subject matter jurisdiction of the Board of Retirement. Comments will be received in real time via telephone or Zoom, subject to a three-minute time limit per speaker.

THE RETIREMENT BOARD MAY DISCUSS AND TAKE ACTION ON THE FOLLOWING:

1. Pledge of Allegiance.

2. Roll Call.

3. Accept comments from the public.

4. Approve minutes from the March 9, 2022 meeting.

5. Approve the following routine items:
   a. Certifications of membership.
   b. Service and disability allowances.
   c. Death benefits.
   d. Investment liquidity report.

The Retirement Board will provide reasonable accommodations for persons with disabilities planning to attend Board meetings who contact the Retirement Office at least 24 hours before a meeting.

6. Accept the following routine items:
    a. Disability applications and authorize subpoenas as required.
    b. Investment asset allocation report.

CLOSED SESSION

7. The Board will go into closed session pursuant to Govt. Code Section 54957 to consider recommendations from the medical advisor and/or staff regarding the following disability retirement applications:

Member	Type Sought	Recommendation
a. William Fiore	Service Connected	Service Connected

8. The Board will continue in closed session pursuant to Govt. Code Section 54956.9(d)(1) to confer with legal counsel regarding pending litigation:

    a. *Nowicki v. CCCERA, et al.,* Contra Costa County Superior Court, Case No. C17-01266

9. The Board will continue in closed session pursuant to Govt. Code Section 54956.9(d)(2) to confer with legal counsel regarding potential litigation (one case).

10. The Board will continue in closed session pursuant to Govt. Code Section 54957 to evaluate the performance of the following public employee:

    Title: Chief Executive Officer

OPEN SESSION

11. Appointment of ad hoc advisory committee to review the Chief Executive Officer compensation package.

12. Presentation from PARS (Public Agency Retirement Services) regarding the I.R.C. Section 115 Trust for Other Post-Employment Benefits for CCCERA Employees.

13. Presentation from Segal Consulting: Review of Actuarial Assumptions.

14. Consider and take possible action to adopt the actuarial assumptions to be utilized in the December 31, 2021 actuarial valuation report.

15. Consider and take possible action to cause an election to be held to fill the vacancy in the alternate seventh safety member seat.

The Retirement Board will provide reasonable accommodations for persons with disabilities planning to attend Board meetings who contact the Retirement Office at least 24 hours before a meeting.

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16. Consider and take possible action to authorize the Board to conduct teleconference meetings under Government Code section 54953 (e) and to make related findings.

17. Consider and take possible action on SACRS voting proxy form.

18. Consider and take possible action on SACRS Board of Directors Election.

19. Consider authorizing the attendance of Board:
    a. 2022 US Investor Conference, Adams Street, June 7, 2022, Chicago, IL.

20. Miscellaneous
    a. Staff Report
    b. Outside Professionals' Report
    c. Trustees' comments

The Retirement Board will provide reasonable accommodations for persons with disabilities planning to attend Board meetings who contact the Retirement Office at least 24 hours before a meeting.

Meeting Date
04/13/2022
Agenda Item
#4

CCCERA
Contra Costa County Employees' Retirement Association

RETIREMENT BOARD MEETING MINUTES

REGULAR MEETING
March 9, 2022
9:00 a.m.

The Board of Retirement meeting was accessible telephonically at (669) 900-6833, Webinar ID 811 9772 0927 Passcode 879812, as permitted by Government Code Section 54953(e).

1. Pledge of Allegiance

The Board and staff joined in the *Pledge of Allegiance.*

2. Roll Call

Present: Candace Andersen, Donald Finley, Scott Gordon, Jerry Holcombe, Louie Kroll, David MacDonald, John Phillips, Reggie Powell, Mike Sloan and Russell Watts.

Absent: Dennis Chebotarev and Jay Kwon

Staff: Gail Strohl, Chief Executive Officer; Christina Dunn, Deputy Chief Executive Officer; Karen Levy, General Counsel; Tim Price, Chief Investment Officer, Wrally Dutkiewicz, Compliance Officer and Tim Hoppe, Retirement Services Manager.

Outside Professional Support:	Representing:
Harvey Leiderman	Reed Smith LLP

3. Accept comments from the public

No member of the public offered comment.

4. Recognition of Tuan Le for 5 years of service

Gordon recognized and congratulated Tuan Le on his 5 years of service.

5. Approval of Minutes

It was **M/S/C** to approve the minutes from the February 9, 2022 meeting. (Yes: Andersen, Finley, Gordon, Holcombe, Kroll, MacDonald, Phillips, Powell and Watts).

6. Approval of Routine Items

It was **M/S/C** to approve the routine items of the March 9, 2022 Board meeting. (Yes: Andersen, Finley, Gordon, Holcombe, Kroll, MacDonald, Phillips, Powell and Watts)

7. Acceptance of Routine Items

It was **M/S/C** to accept the routine items of the March 9, 2022 Board meeting. (Yes: Andersen, Finley, Gordon, Holcombe, Kroll, MacDonald, Phillips, Powell and Watts)

CLOSED SESSION

The Board moved into Closed Session pursuant to Govt. Code Sections 54957, 54956.9 (d) (1).

The Board moved into open session.

8. It was **M/S/C** to accept the Medical Advisor's recommendation and grant the following disability benefits:

a. Vincent Richards – Service Connected (Yes: Andersen, Finley, Gordon, Holcombe, Kroll, MacDonald, Phillips, Powell and Watts).

9. There was no reportable action related to Govt. Code Section 54956.9(d)(1).

10. Consider and take possible action regarding non-service connected disability retirement allowance of deceased member Marie Rulloda.

It was **M/S/C** to approve a Non-Service Connected Disability Retirement under Government Code Section 31720.1 and grant the member's beneficiary benefits pursuant to Government Code Section 31762 an Optional Settlement 2 allowance. (Yes: Andersen, Finley, Gordon, Holcombe, Kroll, MacDonald, Phillips, Powell and Watts).

Kwon was present for subsequent discussion and voting.

11. Consider and take possible action to approve Sagitec's use of subcontractors on the pension administration system project, subject to CCCERA's review and approval of the subcontracting arrangement.

It was **M/S/C** to approve Sagitec's potential use of subcontractors on the pension administration system project, subject to CCCERA's review and approval of the subcontracting arrangement. (Yes: Andersen, Finley, Gordon, Holcombe, Kroll, MacDonald, Phillips, Powell and Watts).

12. Presentation of the Central Contra Costa Sanitary District focused employer audit report.

Dutkiewicz presented the Central Contra Costa Sanitary District focused employer audit report, noting the audit was limited to the district's payroll and contribution reporting since the district went through a payroll system change at the end of 2021.

13. Consider and take possible action to authorize the Board to conduct teleconference meetings under Government Code Section 54953 (e) and to make related findings.

Levy presented the open meetings law regarding holding teleconference board meetings during a state-proclaimed state of emergency.

It was **M/S/C** to authorize the Board and its committee(s) to continue to conduct teleconference meetings for the next 30 days under Government Code Section 54953 (e) and make the following findings:

1. The Board has reconsidered the circumstance of the statewide state of emergency proclaimed by the Governor on March 4, 2020 and the countywide local emergency proclaimed by the Governor on March 10, 2020.

2. The following circumstances currently exist:

    a. The statewide state of emergency and the countywide local emergency continue to directly impact the ability of the Board and its committee(s) to meet safely in person at meeting that are open to the general public because of the COVID-19 pandemic.

    b. The County Health Officer's recommendations for safely holding public meetings, which recommend virtual meeting and other measures to promote social distancing, are still in effect. (Yes: Andersen, Finley, Gordon, Holcombe, Kroll, MacDonald, Phillips, Powell and Watts)

14. Presentation of Semi-Annual Disability Retirement Report

Hoppe presented the semi-annual disability retirement report.

15. Report from Audit Committee Chair on February 23, 2022 Audit Committee meeting.

Phillips reported on the February 23, 2022 Audit Committee meeting.

16. Miscellaneous

a. Staff Report – Price provided a brief update on CCCERA's exposure to Russian securities in light of the invasion of Ukraine and resulting sanctions, noting that the fund had approximately $44 mm pre-invasion.

b. Outside Professionals - None

c. Trustee' comments – Kwon reported he attended the CALAPRS General Assembly and noted he attended a few panels including one Tim Price was on. Overall, it was a very good conference.

MacDonald also attended the CALAPRS General Assembly. He would like to hear from Segal about the presentation on being fully funded.

It was **M/S/C** to adjourn the meeting. (Yes: Andersen, Finley, Gordon, Holcombe, Kroll, MacDonald, Phillips, Powell and Watts)

Scott Gordon, Chairman

Jerry R. Holcombe, Secretary

Meeting Date
04/13/2022
Agenda Item
#5a.

CERTIFICATION OF MEMBERSHIPS

Name	Employee Number	Tier	Membership Date	Employer
Abrea, Dale-Ryan	91534	P5.2	02/01/22	Contra Costa County
Adams, Jamie	89556	P5.2	02/01/22	Contra Costa County
Alcazar, Carlos	90784	P5.2	02/01/22	Contra Costa County
Amatya, Moeta	91556	P5.2	02/01/22	Contra Costa County
Anayat, Bahr	91570	P5.2	02/01/22	Contra Costa County
Anderson, Tsholofelo	91577	P5.2	02/01/22	Contra Costa County
Bass, Kameka	72275	III	02/01/22	Contra Costa County
Baumann, Dana	91525	P5.2	02/01/22	Contra Costa County
Benson, Maisha	87932	P5.2	02/01/22	Contra Costa County
Boachie-Darquah, Sylvester	90222	P5.2	02/01/22	Contra Costa County
Boatman, Jazmyne	90340	P5.2	02/01/22	Contra Costa County
Borges Jr., Kenneth	D7830	S/D	02/01/22	San Ramon Valley Fire Protection District
Brent, Austin	91559	P5.2	02/01/22	Contra Costa County
Cardenas Munoz, Yoally	91541	P4.3	02/01/22	First Five of Contra Costa
Carlson, Hannah	D7830	S/D	02/01/22	San Ramon Valley Fire Protection District
Carmichael Lucas, Deshante	82874	P5.2	02/01/22	Contra Costa County
Cervantes, Christine	91593	P5.2	02/01/22	Contra Costa County
Chalco, Jennifer	77717	III	02/01/22	Contra Costa County
Chavarria, Andrea	89577	P5.2	02/01/22	Contra Costa County
Chen, Josephine	91540	P5.2	02/01/22	Contra Costa County
Chin, Mary	91526	P5.2	02/01/22	Contra Costa County
Coleman, Stephanie	91581	P5.2	02/01/22	Contra Costa County
Confetti, Dominic	91538	P5.2	02/01/22	Contra Costa County
Cook, Ernestine	91491	P5.2	02/01/22	Contra Costa County
Cortes, Jessica	87628	P5.2	02/01/22	Contra Costa County
Crider, Andrea	91550	P5.2	02/01/22	Contra Costa County
Cusick, Miles	91536	P5.2	02/01/22	Contra Costa County
De La Torre, Ernesto	91562	P5.2	02/01/22	Contra Costa County
Devereaux, Paige	70911	III	02/01/22	Contra Costa County
Diaz, Erika	83096	P5.2	02/01/22	Contra Costa County
Diktakis, David	D7830	S/D	02/01/22	San Ramon Valley Fire Protection District
Fernandez Lara, Joana	91499	P5.2	02/01/22	Contra Costa County
Fiuangaihetau, Mele	91543	P5.2	02/01/22	Contra Costa County
Flores, Xaviera	88101	P5.2	02/01/22	Contra Costa County
Fuller, Lashun	91533	P5.2	02/01/22	Contra Costa County
Gallegos, Daisy	91583	P5.2	02/01/22	Contra Costa County
Garcia, Jocelyn	91634	P5.2	02/01/22	Contra Costa County
Garrett, James	91580	P5.2	02/01/22	Contra Costa County
George, Emerald	91596	P5.2	02/01/22	Contra Costa County
Giryavets, Victoria	91542	P5.2	02/01/22	Contra Costa County

Key:

I = Tier I	P4.2 = PEPRA Tier 4 (2% COLA)	S/A = Safety Tier A
II = Tier II	P4.3 = PEPRA Tier 4 (3% COLA)	S/C = Safety Tier C
III = Tier III	P5.2 = PEPRA Tier 5 (2% COLA)	S/D = Safety Tier D
	P5.3 = PEPRA Tier 5 (3% COLA)	S/E = Safety Tier E

CERTIFICATION OF MEMBERSHIPS

Name	*Employee Number*	*Tier*	*Membership Date*	*Employer*
Gochenouer, Erica	91605	P5.2	02/01/22	Contra Costa County
Gonzales, Claudia	91557	P5.2	02/01/22	Contra Costa County
Gonzalez, Sarah	67087	III	02/01/22	Contra Costa County
Guinto, Christa	91564	P5.2	02/01/22	Contra Costa County
Jackson, Kourvahcia	90310	P5.2	02/01/22	Contra Costa County
Jennings, Dominic	91548	P5.2	02/01/22	Contra Costa County
Juarez, Denise	91528	P5.2	02/01/22	Contra Costa County
Lagan, Anthony	91566	P5.2	02/01/22	Contra Costa County
Laude, Peter Cornelius	91547	P5.2	02/01/22	Contra Costa County
Leduna, Karen	86383	P5.2	02/01/22	Contra Costa County
Lemus Monterroza, Karen	91575	P5.2	02/01/22	Contra Costa County
Lin, Jiali	74882	III	02/01/22	Contra Costa County
Lopes Magalhaes, Belisa	91466	P5.2	02/01/22	Contra Costa County
Low, Megan	91568	P5.2	02/01/22	Contra Costa County
Luevano, Lisa	91558	P5.2	02/01/22	Contra Costa County
Luna, Rogelio	88116	P5.2	02/01/22	Contra Costa County
Mack, Rian	91603	P5.2	02/01/22	Contra Costa County
Mago, Reigell	91555	P5.2	02/01/22	Contra Costa County
Malmgren, Shadney	85163	P5.2	02/01/22	Contra Costa County
Martinez, Marco	90344	P5.2	02/01/22	Contra Costa County
Mason, Felicia	91508	P5.2	02/01/22	Contra Costa County
Mattern, Scott	89097	P5.2	02/01/22	Contra Costa County
May, Staci	89165	P5.2	02/01/22	Contra Costa County
Mendoza, Jessenia	89921	P5.2	02/01/22	Contra Costa County
Milani, Behrouz	91544	P5.2	02/01/22	Contra Costa County
Mollique, Marlen	91527	P5.2	02/01/22	Contra Costa County
Moorer, Jessica	D9500	P5.3	02/01/22	Contra Costa County Superior Courts
Mueller, Monica	90651	P5.2	02/01/22	Contra Costa County
Olivera, Alejandro	91517	P5.2	02/01/22	Contra Costa County
Ollikainen, Mia	91615	P5.2	02/01/22	Contra Costa County
Ortiz, Vannessa	90540	P5.2	02/01/22	Contra Costa County
Osarobo, Eko	90199	P5.2	02/01/22	Contra Costa County
Peckham, Valerie	91560	P5.2	02/01/22	Contra Costa County
Peng, Yu-Hung	84703	P5.2	02/01/22	Contra Costa County
Perkins, William	D7830	S/D	02/01/22	San Ramon Valley Fire Protection District
Pina, Jonathan	91617	S/E	02/01/22	Contra Costa County
Pobre, Kevin	D7274	S/D	02/01/22	Moraga-Orinda Fire District
Punongbayan, Angeles	91506	P5.2	02/01/22	Contra Costa County
Quam, Alexandria	D9500	P5.3	02/01/22	Contra Costa County Superior Courts
Redic, Ulysha	81539	P5.2	02/01/22	Contra Costa County

Key:

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II = Tier II	**P4.3 = PEPRA Tier 4 (3% COLA)**	**S/C = Safety Tier C**
III = Tier III	**P5.2 = PEPRA Tier 5 (2% COLA)**	**S/D = Safety Tier D**
	P5.3 = PEPRA Tier 5 (3% COLA)	**S/E = Safety Tier E**

CERTIFICATION OF MEMBERSHIPS

Name	*Employee Number*	*Tier*	*Membership Date*	*Employer*
Rhoades, Chelsea	84956	P5.2	02/01/22	Contra Costa County
Rodriguez Baker, Darine	76886	P5.2	02/01/22	Contra Costa County
Rudecino, Areli	91135	P5.2	02/01/22	Contra Costa County
Santiago, Garrett	91515	S/E	02/01/22	Contra Costa County
Spencer, Candis	91573	P5.2	02/01/22	Contra Costa County
Suarez, Gaile	91507	P5.2	02/01/22	Contra Costa County
Taylor, Patricia	91574	P5.2	02/01/22	Contra Costa County
Ternes, Jason	91535	P5.2	02/01/22	Contra Costa County
Vera, Eva	56685	III	02/01/22	Contra Costa County
Villa, Roanne	89276	P5.2	02/01/22	Contra Costa County
Walker, Kimberley	D3406	P4.3	02/01/22	Central Contra Costa Sanitary District
Walker, William	91516	P5.2	02/01/22	Contra Costa County
Whitmore, Brendan	D7830	S/D	02/01/22	San Ramon Valley Fire Protection District
Young, Summer	91606	P5.2	02/01/22	Contra Costa County
Zepeda, Miguel	91576	P5.2	02/01/22	Contra Costa County

Key:

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II = Tier II	**P4.3 = PEPRA Tier 4 (3% COLA)**	**S/C = Safety Tier C**
III = Tier III	**P5.2 = PEPRA Tier 5 (2% COLA)**	**S/D = Safety Tier D**
	P5.3 = PEPRA Tier 5 (3% COLA)	**S/E = Safety Tier E**

TIER CHANGES

Name	*Employee Number*	*Old Tier*	*New Tier*	*Effective Date*	*Employer*	*Reason for Change*
Burgueno, Joseph	89023	P4.2	S/E	02/01/22	Contra Costa County Fire Protection District	Promotion to Fire Inspection II
King, Taylor	88522	P4.2	S/E	02/01/22	Contra Costa County Fire Protection District	Promotion to Fire Inspection II
Rueda, Maria	88566	P5.2	III	09/01/19	Contra Costa County	Reciprocity Established, Age & Tier Change

Key:

I = Tier I	**P4.2 = PEPRA Tier 4 (2% COLA)**	**S/A = Safety Tier A**
II = Tier II	**P4.3 = PEPRA Tier 4 (3% COLA)**	**S/C = Safety Tier C**
III = Tier III	**P5.2 = PEPRA Tier 5 (2% COLA)**	**S/D = Safety Tier D**
	P5.3 = PEPRA Tier 5 (3% COLA)	**S/E = Safety Tier E**

CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

BOARD OF RETIREMENT

Meeting Date
04/13/2022
Agenda Item
#5b.

Service and Disability Retirement Allowances:

Name	Number	Effective Date	Option Type	Tier	Selected
Aranda, Oscar	63249	05/01/21	SCD	Safety A	Unmodified
Behrmann, Nathan	70587	12/08/21	SCD	Safety A	Unmodified
Bermudez, Lucy	61919	12/01/21	SR	II and III	Unmodified
Boswell, James	67032	12/06/21	SR	Safety A	Unmodified
Cook, Thomas	82447	12/01/21	SR	PEPRA 5.2	Option 2
Cowlah, Venita	71782	11/15/21	SR	III	Unmodified
Craig, Bryan	D7800	01/01/22	SR	Safety A	Unmodified
Fuller, Elizabeth	34279	12/01/21	SR	I and II	Unmodified
Garcia, David	D3603	01/14/22	SR	I	Unmodified
Goldberg, Cary	54709	12/21/21	SR	Safety A	Unmodified
Hernandez, Michael	63848	01/01/22	SR	II and III	Unmodified
Huettis, Richard	D7830	12/16/21	SR	Safety A	Unmodified
Lugtu, Ladino	64218	10/30/21	SR	II and III	Unmodified
Mailander, Flora	78436	11/30/21	SR	PEPRA 5.3	Unmodified
Malone, Da'Kiesha	D9500	04/23/18	SCD	III	Unmodified
McCormack, Nathaniel	61364	12/01/21	SR	Safety A	Unmodified
Nash, Barbara	48377	12/07/21	SR	II and III	Unmodified
Razzak-Morris, Shainaz	54344	09/07/21	SR	II and III	Unmodified

Option Type
NSP = Non-Specified
SCD = Service Connected Disability
SR = Service Retirement
NSCD = Non-Service Connected Disability
* = County Advance Selected w/option

Tier
I = Tier I
II = Tier II
III = Tier III
S/A = Safety Tier A
S/C = safety Tier C
Pepra 4.2 = Pepra Tier 4 (2% COLA)
Pepra 4.3 = Pepra Tier 4 (3% COLA)
Pepra 5.2 = Pepra Tier 5 (2% COLA)
Pepra 5.3 = Pepra Tier 5 (3% COLA)
S/D = Pepra Safety Tier D
S/E = Pepra Safety Tier E

CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

BOARD OF RETIREMENT

Meeting Date
04/13/2022
Agenda Item
#5c.

Deaths:

Name	Date of Death	Employer as of Date of Death
Bradley, Jeffrey	01/26/22	Contra Costa County
Chao, Chanchian	02/02/22	Contra Costa County
Cox, Robert	02/15/22	Moraga Fire District
Domko, Jean	02/25/22	Contra Costa County
Evans, Betty	02/03/22	Contra Costa County
Froland, Alma	02/17/22	Contra Costa County
Gleichman, Gregory	12/23/21	Contra Costa County
Higgins, John	01/31/22	Contra Costa County
James, Jacqueline	08/02/19	Contra Costa County
Johnson, Adrian	02/04/22	Delta Diablo Sanitation District
Leon, Mary	02/14/22	Contra Costa County
McGowan, Michael	02/07/22	Contra Costa County
Moore, William	03/26/22	Contra Costa County
Newell, Chester	03/18/21	Contra Costa County
Ryan, Geraldine	03/25/22	Contra Costa County
Scoggins, Alan	01/19/22	Contra Costa County
Waters, Jane Ann	03/09/22	Superior Courts

Meeting Date
04/13/2022
Agenda Item
#5d.

Contra Costa County Employees' Retirement Association
Liquidity Report – February 2022

February 2022 Performance

	Cash Flow	Coverage Ratio
Benefit Cash Flow Projected by Model	$46,000,000	
Liquidity Sub-Portfolio Cash Flow	$46,000,000	100%
Actual Benefits Paid	$45,838,617	100.4%
Next Month's Projected Benefit Payment	*$48,000,000*	

Monthly Manager Positioning – February 2022

	Beginning Market Value	Liquidity Program Cash Flow	Market Value Change/Other Activity	Ending Market Value
Sit	$550,995,306	($8,250,000)	($1,256,403)	$541,488,903
DFA	$297,485,595	($3,500,000)	($2,084,435)	$291,901,160
Insight	$653,896,535	($34,250,000)	($1,707,415)	$617,939,120
Liquidity	**$1,502,377,437**	**($46,000,000)**	**($5,048,253)**	**$1,451,329,183**
Cash	$397,916,565	$161,383	$114,353,597	$512,431,545
Liquidity + Cash	**$1,900,294,001**	**($45,838,617)**	**$109,305,344**	**$1,963,760,728**

Functional Roles

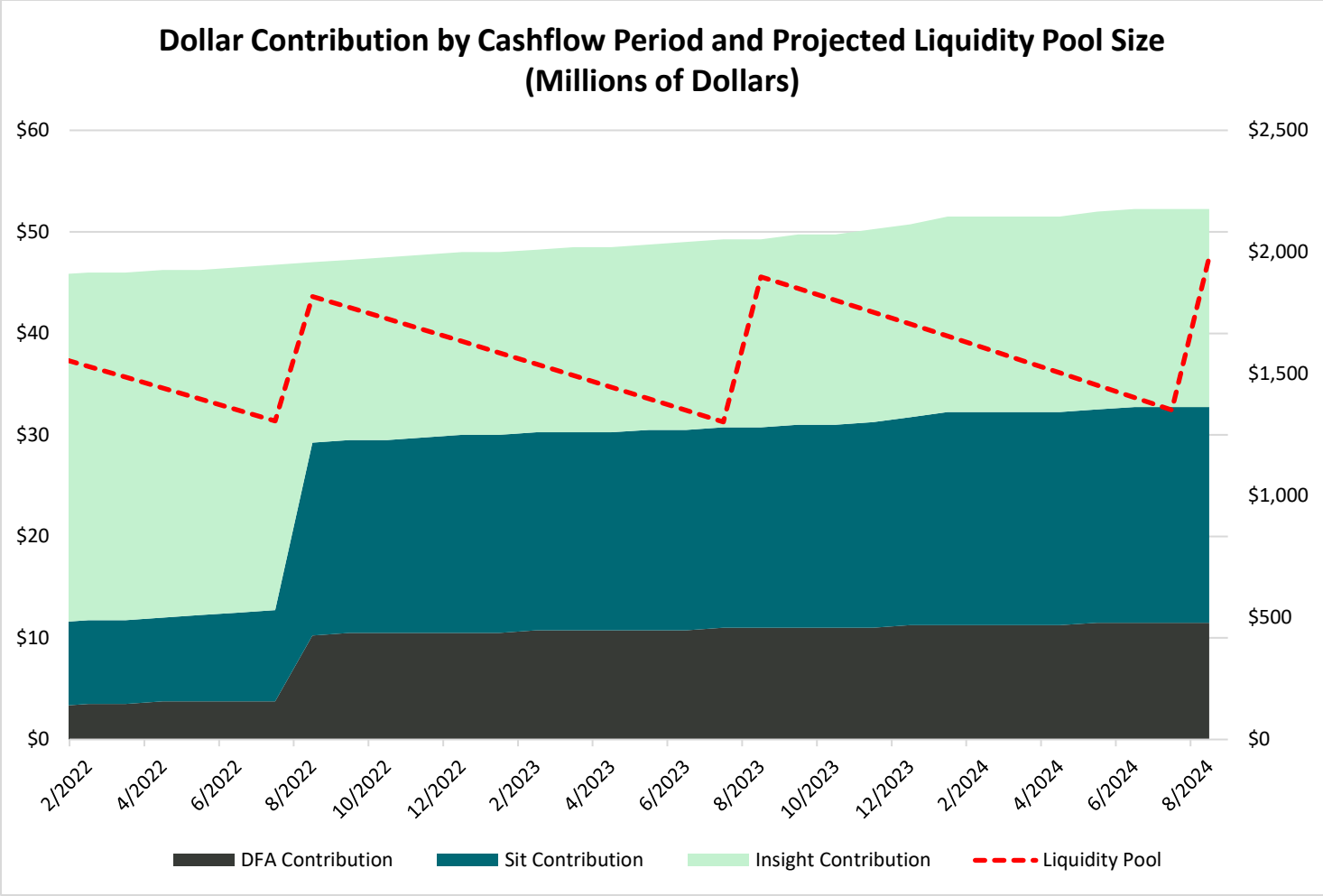
Manager	Portfolio Characteristics	Liquidity Contribution
Sit	High quality portfolio of small balance, government guaranteed mortgages with higher yields.	Pays out net income on monthly basis.
DFA	High quality, short duration portfolio of liquid, low volatility characteristics.	Pays out a pre-determined monthly amount. DFA sources liquidity from across their portfolio.
Insight	Buy and maintain (limited trading) portfolio of high quality, short duration, primarily corporates.	Completion portfolio makes a payment through net income and bond maturities that bridges the gap between other managers and projected payment.
Cash	STIF account at custodial bank.	Buffer in the event of any Liquidity shortfall/excess.

Notes

The second cash flow for 2022 from the liquidity program was completed on February 23rd. The actuarial model cash flow was higher than actual experience, producing $161 thousand more than the actual benefits paid.

Cash Flow Structure

The chart below shows the sources of cash flow for the next three years of CCCERA's projected benefit payments. This table will change slightly as the model is tweaked and as the portfolios receive new rounds of funding each July as part of the Annual Funding Plan.



CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

BOARD OF RETIREMENT

Meeting Date
04/13/2022
Agenda Item
#6a.

Disability Retirement Applications: *The Board's Hearing Officer is hereby authorized to issue subpoenas in the following cases involving disability applications:*

Name	Number	Filed	Type
Hagstrom, Jeffrey	71140	02/25/22	SCD
Gospodchikov, Vyacheslav	60354	03/02/22	NSCD
Ramirez, Jaime	66103	03/16/22	NSCD
Reel, Casey	81732	03/17/22	SCD
Ellis, Michael	D7830	03/22/22	SCD
Sciortino, Michael	D7830	03/25/22	SCD
Spaulding, Mark	61600	03/30/22	SCD

Option Type

NSP = Non-Specified
SCD = Service Connected Disability
SR = Service Retirement
NSCD = Non-Service Connected Disability
* = County Advance Selected w/option

Tier

I = Tier I
II = Tier II
III = Tier III
S/A = Safety Tier A
S/C = safety Tier C
Pepra 4.2 = Pepra Tier 4 (2% COLA)
Pepra 4.3 = Pepra Tier 4 (3% COLA)
Pepra 5.2 = Pepra Tier 5 (2% COLA)
Pepra 5.3 = Pepra Tier 5 (3% COLA)
S/D = Pepra Safety Tier D
S/E = Pepra Safety Tier E

Meeting Date
04/13/2022
Agenda Item
#6b.

Contra Costa County Employees' Retirement Association
Asset Allocation as of February 28, 2022

	Market Value	Percentage of Total Fund	Current Target* Percentage	Current Target Over/(Under)	Long Term Target	Long Term Over/(Under)
Liquidity						
Sit	541,488,903	4.9%	7.0%	-2.1%		
Dimensional Fund Advisors	291,901,160	2.7%	4.0%	-1.3%		
Insight	617,939,120	5.6%	7.0%	-1.4%		
Total Liquidity	**1,451,329,183**	**13.2%**	**18.0%**	**-4.8%**	**17.0%**	**-3.8%**
		Range 11-22%				
Growth						
Domestic Equity						
Boston Partners	411,998,571	3.8%	4.0%	-0.2%		
Jackson Square	291,489,165	2.7%	4.0%	-1.3%		
BlackRock Index Fund	592,595,625	5.4%	5.0%	0.4%		
Emerald Advisers	225,874,170	2.1%	1.5%	0.6%		
Ceredex	200,691,689	1.8%	1.5%	0.3%		
Total Domestic Equity	1,722,649,220	15.7%	16.0%	-0.3%	13.0%	2.7%
Global & International Equity						
Pyrford (BMO)	488,797,605	4.4%	4.0%	0.4%		
William Blair	477,945,382	4.4%	4.0%	0.4%		
First Eagle	517,195,386	4.7%	4.5%	0.2%		
Artisan Global Opportunities	546,109,042	5.0%	4.5%	0.5%		
PIMCO/RAE Emerging Markets	372,709,445	3.4%	4.0%	-0.6%		
TT Emerging Markets	388,914,276	3.5%	4.0%	-0.5%		
Total Global & International Equity	2,791,671,136	25.4%	25.0%	0.4%	19.0%	6.4%
Private Equity**	1,435,584,150	13.1%	11.0%	2.1%	18.0%	-4.9%
Private Credit	855,917,800	7.8%	8.0%	-0.2%	13.0%	-5.2%
Real Estate - Value Add	210,973,760	1.9%	4.0%	-2.1%	5.0%	-3.1%
Real Estate - Opportunistic & Distress	347,388,759	3.2%	4.0%	-0.8%	5.0%	-1.8%
Real Estate - REIT (Adelante)	102,408,320	0.9%	2.0%	-1.1%	0.0%	0.9%
High Yield (Allianz)	177,586,287	1.6%	2.0%	-0.4%	0.0%	1.6%
Risk Parity			3.0%	1.4%	3.0%	1.4%
AQR GRP EL	219,052,211	2.0%				
PanAgora	261,964,874	2.4%				
Total Other Growth Assets	3,610,876,161	32.9%	34.0%	-1.1%	44.0%	-11.1%
Total Growth Assets	**8,125,196,517**	**74.0%**	**75.0%**	**-1.0%**	**76.0%**	**-2.0%**
		Range 65-85%				
Risk Diversifying						
AFL-CIO	252,941,405	2.3%	2.5%	-0.2%	2.5%	-0.2%
Parametric Defensive Equity	3,962	0.0%	1.5%	-1.5%	1.5%	-1.5%
Acadian MAARS	243,413,869	2.2%	1.5%	0.7%	1.5%	0.7%
Sit LLCAR	281,441,041	2.6%	1.5%		1.5%	
Wellington Real Total Return	114,127	0.0%	0.0%			
Total Risk Diversifying	**777,914,403**	**7.1%**	**7.0%**	0.1%	**7.0%**	**0.1%**
		Range 0% - 10%				
Cash and Overlay						
Overlay (Parametric)	117,596,330	1.1%		1.1%		
Cash	512,431,545	4.7%		4.7%		
Total Cash and Overlay	**630,027,875**	**5.7%**	**0.0%**	5.7%	**0.0%**	**5.7%**
Total Fund	**10,984,467,977**	**100%**	**100%**		**100%**	

*Current targets and ranges reflect asset allocation targets accepted by the Board on April 28, 2021 (BOR Resolution 2021-4).
**Private Equity long-term target includes Real Assets/Infrastructure (see Asset Allocation Mix 5 adopted December 9, 2020).

Private Market Investments
As of February 28, 2022

REAL ESTATE - Value Add	Inception Date	Target Termination	# of Extension	Discretion by GP/LP	New Target Termination	Funding Commitment	Market Value	% of Total Asset	Outstanding Commitment
Invesco IREF III	08/01/13	08/01/20				35,000,000	161,682	0.00%	
Invesco IREF IV	12/01/14	12/01/21				35,000,000	5,735,496	0.05%	4,453,599
Invesco IREF V	09/11/18	09/11/25				75,000,000	70,423,006	0.64%	19,389,232
Long Wharf FREG IV	08/14/13	09/30/21				25,000,000	1,539,860	0.01%	
Long Wharf FREG V	10/31/16	09/30/24				50,000,000	30,734,059	0.28%	
Long Wharf LREP VI	02/05/20	02/05/28				50,000,000	19,970,058	0.18%	24,538,740
LaSalle Income & Growth Fund VI	01/31/12	01/31/19				75,000,000	19,879,579	0.18%	3,946,000
LaSalle Income & Growth Fund VII	10/31/16	09/30/24				75,000,000	62,530,020	0.57%	8,502,404
						630,000,000	**210,973,760**	**1.92%**	**60,829,975**
	Outstanding Commitments						**60,829,975**		
	Total						**271,803,735**		

REAL ESTATE -Opportunistic & Distressed	Inception Date	Target Termination	# of Extension	Discretion by GP/LP	New Target Termination	Funding Commitment	Market Value	% of Total Asset	Outstanding Commitment
DLJ Real Estate Capital Partners, L.P. III	06/30/05	06/30/14	in full liq.			75,000,000	14,991,850	0.14%	4,031,338
DLJ Real Estate Capital Partners, L.P. IV	12/31/07	09/30/18				100,000,000	47,925,187	0.44%	1,876,084
DLJ Real Estate Capital Partners, L.P. V	07/31/13	12/31/22				75,000,000	28,935,237	0.26%	5,132,607
DLJ Real Estate Capital Partners, L.P. VI	02/28/19	01/31/29				50,000,000	23,225,689	0.21%	21,346,526
Oaktree Real Estate Opportunities Fund V	02/01/11	02/01/21				50,000,000	1,219,147	0.01%	25,750,000
Oaktree Real Estate Opportunities Fund VI	09/30/13	09/30/20				80,000,000	26,271,187	0.24%	18,400,000
Oaktree Real Estate Opportunities Fund VII	02/28/15	02/28/23				65,000,000	48,997,153	0.45%	16,120,000
Siguler Guff Distressed Real Estate Opp. Fund	07/30/11	07/30/22				75,000,000	21,658,383	0.20%	5,625,000
Siguler Guff Distressed Real Estate Opp. Fund II	08/31/13	08/31/25				70,000,000	41,890,216	0.38%	8,015,000
Siguler Guff Distressed Real Estate Opp. II Co-Inv	01/31/16	10/31/25				25,000,000	15,595,215	0.14%	4,462,138
Paulson Real Estate Fund II	11/10/13	11/10/20				20,000,000	16,531,343	0.15%	654,377
Angelo Gordon Realty Fund VIII	12/31/11	12/31/18				80,000,000	16,031,595	0.15%	12,334,302
Angelo Gordon Realty Fund IX	10/10/14	10/10/22				65,000,000	44,116,557	0.40%	7,572,500
						830,000,000	**347,388,759**	**3.16%**	**131,319,872**
	Outstanding Commitments						**131,319,872**		
	Total						**478,708,631**		

PRIVATE CREDIT	Inception Date	Target Termination	# of Extension	Discretion by GP/LP	New Target Termination	Funding Commitment	Market Value	% of Total Asset	Outstanding Commitment
Torchlight Debt Opportunity Fund III	09/30/08	06/30/16	2nd 1 YR	LP	06/30/18	75,000,000	0	0.00%	0
Torchlight Debt Opportunity Fund IV	08/01/12	08/30/20				60,000,000	9,064,530	0.08%	0
Torchlight Debt Opportunity Fund V	12/31/14	09/17/22				75,000,000	10,284,705	0.09%	15,000,000
Angelo Gordon Energy Credit Opportunities	09/10/15	09/10/20				16,500,000	3,546,515	0.03%	2,319,783
CCCERA StepStone	12/01/17	11/30/27				1,170,000,000	833,022,050	7.58%	447,368,259
						1,524,500,000	**855,917,800**	**7.79%**	**464,688,042**
	Outstanding Commitments						**464,688,042**		
	Total						**1,320,605,842**		

Private Market Investments
As of February 28, 2022

PRIVATE EQUITY	Inception Date	Target Termination	# of Extension	Discretion by GP/LP	New Target Termination	Funding Commitment	Market Value	% of Total Asset	Outstanding Commitment
Adams Street Partners	12/22/95	12/22/25				269,565,614	181,541,638	1.65%	20,267,580
Adams Street Secondary II	12/31/08	12/31/20				30,000,000	4,785,935	0.04%	1,635,000
Adams Street Secondary V	10/31/12	10/31/22				40,000,000	15,971,153	0.15%	9,154,125
Adams Street Venture Innovation Fund	03/09/16	03/09/28				75,000,000	211,850,261	1.93%	8,962,500
AE Industrial Partners Fund II	05/18/18	05/18/28				35,000,000	39,926,168	0.36%	11,223,193
Bay Area Equity Fund	06/14/04	12/31/14	2nd 2 YR	LP	12/31/2017	10,000,000	1,376,215	0.01%	0
Bay Area Equity Fund II	2/29/09	12/31/19				10,000,000	17,134,334	0.16%	0
Carpenter Community BancFund	10/31/09	10/31/19				30,000,000	0	0.00%	0
EIF USPF II	06/15/05	06/15/15	3rd 1 YR	LP	06/15/18	50,000,000	4,836,740	0.04%	0
EIF USPF III	02/28/07	02/28/17	1st 1 YR	LP	02/28/18	65,000,000	10,358,370	0.09%	0
EIF USPF IV	06/28/10	06/28/20				50,000,000	27,276,860	0.25%	4
Ares EIF V	09/09/15	11/19/25				50,000,000	26,025,268	0.24%	12,751,187
Genstar Capital Partners IX	02/18/19	02/18/29				50,000,000	62,903,122	0.57%	6,041,299
Genstar Capital Partners X	04/01/21	04/01/31				42,500,000	5,480,401	0.05%	37,271,270
GTCR VIII	10/27/20	12/31/36				50,000,000	10,582,123	0.10%	40,820,000
Hellman & Friedman Capital Partners	05/10/21	05/10/31				75,000,000	38,356,412	0.35%	34,117,819
Oaktree Private Investment Fund 2009	02/28/10	12/15/19				40,000,000	477,280	0.00%	6,308,961
Ocean Avenue Fund II	05/07/14	05/07/24				30,000,000	30,663,593	0.28%	3,000,000
Ocean Avenue Fund III	12/09/15	12/09/25				50,000,000	47,737,032	0.43%	6,000,000
Paladin III	08/15/08	08/15/18				25,000,000	21,396,189	0.19%	419,157
Pathway	11/09/98	05/31/21				125,000,000	4,850,787	0.04%	10,557,887
Pathway 2008	12/26/08	12/26/23				30,000,000	21,557,584	0.20%	2,821,477
Pathway 6	05/24/11	05/24/26				40,000,000	46,899,094	0.43%	3,690,651
Pathway 7	02/07/13	02/07/23				70,000,000	92,765,681	0.84%	5,497,420
Pathway 8	11/23/15	11/23/25				50,000,000	80,330,491	0.73%	5,530,410
Siguler Guff CCCERA Opportunities	06/03/14	05/31/25				200,000,000	155,822,212	1.42%	29,597,500
Siguler Guff Secondary Opportunities	12/31/16	12/31/26				50,000,000	0	0.00%	0
Siris Partners IV	05/18/18	05/18/28				35,000,000	27,970,104	0.25%	14,895,014
TA XIV	05/27/21	05/27/31				50,000,000	13,500,000	0.12%	36,500,000
TPG Healthcare Partners, L.P.	06/27/19	06/27/29				24,000,000	16,653,502	0.15%	12,030,771
Trident VIII, L.P.	05/24/19	05/24/29				40,000,000	44,390,021	0.40%	3,785,168
Trident IX, L.P.	09/17/21	09/17/31				50,000,000	0	0.00%	50,000,000
Real Assets									
Aether III & III Surplus	11/30/13	11/30/20				75,000,000	61,113,975	0.56%	3,443,405
Aether IV	01/01/16	01/01/28				50,000,000	55,377,863	0.50%	4,103,494
Commonfund Capital Natural Resources IX	06/30/13	06/30/20				50,000,000	39,485,088	0.36%	3,475,007
Wastewater Opportunity Fund	12/31/15	11/30/22				25,000,000	16,188,655	0.15%	1,204,775
						2,036,065,614	**1,435,584,150**	**14.72%**	**335,105,073**
	Outstanding Commitments						**335,105,073**		
	Total						**1,770,689,223**		

Market value equals the most recent reported net asset value, plus capital calls after net asset value date, less distributions after net asset value date.
The Target Termination column is the beginning of liquidation of the fund, however, some funds may be extended for an additional two or three years.

Contra Costa County Employees' Retirement Association

Meeting Date
04/13/2022
Agenda Item
#12

MEMORANDUM

Date: April 13, 2022

To: CCCERA Board of Retirement

From: Gail Strohl, Chief Executive Officer

Subject: Presentation from PARS (Public Agency Retirement Services) regarding the I.R.C. Section 115 Trust for Other Post-Employment Benefits for CCCERA employees.

Background
On an annual basis, PARS (Public Agency Retirement Services) provides a report to the Board regarding the performance of the I.R.C. Section 115 Trust for Other Post-Employment Benefits ("OPEB") for CCCERA employees. This report is net of trustee administration and investment management fees, and shows the prior year December 31 account balance.

Recommendation
Informational only. No action is necessary.

Meeting Date
04/13/2022
Agenda Item
#12

CONTRA COSTA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

OPEB Prefunding Program Client Review

April 13, 2022

CONTACTS

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PARS 115 TRUST TEAM

Trust Administrator & Consultant

PUBLIC AGENCY RETIREMENT SERVICES | PARS
TRUSTED SOLUTIONS. LASTING RESULTS.

- Serves as record-keeper, consultant, and central point of contact
- Sub-trust accounting
- Coordinates all agency services
- Monitors plan compliance (IRS/GASB/State Government Code)
- Processes contributions/disbursements
- Hands-on, dedicated support teams

38	2,000+	1,000+	430+	500 K+	$6.6 B
Years of Experience (1984-2022)	Plans under Administration	Public Agency Clients	115 Trust Clients	Plan Participants	Assets under Administration

Trustee

usbank

- 5th largest commercial bank and one of the nation's largest trustees for Section 115 trusts
- Safeguard plan assets
- Oversight protection as plan fiduciary
- Custodian of assets

159	$5.0 T
Years of Experience (1863-2022)	Assets under Administration

Investment Manager

HIGHMARK® CAPITAL MANAGEMENT

- Investment sub-advisor to trustee U.S. Bank
- Investment policy assistance
- Uses open architecture
- Active and passive platform options
- Customized portfolios (with minimum asset level)

103	$19.0 B
Years of Experience (1919-2022)	Assets under Management & Advisement

SUMMARY OF AGENCY'S OPEB PLAN

Plan Type:	IRC Section 115 Irrevocable Exclusive Benefit Trust
Trustee Approach:	Discretionary
Plan Effective Date:	December 1, 2018
Plan Administrator:	Gail Strohl, Chief Executive Officer
Current Investment Strategy:	Custom Strategy; Individual Account
Eligibility:	Employees of CCCERA that retire after December 31, 2014

AS OF DECEMBER 31, 2021:

Initial Contribution:	December 2018: $2,542,476
Additional Contributions:	$1,632,300
Total Contributions:	$4,174,776
Disbursements:	($231,909)
Total Investment Earnings:	$1,392,245
Expenses/Fees*:	($70,408)
Account Balance:	$5,264,704

** Only pertaining to PARS and HighMark/US Bank fees.*

SUMMARY OF AGENCY'S OPEB PLAN

FOR PERIOD JANUARY 1, 2021 - DECEMBER 31, 2021:

Contributions:	$268,000
Disbursements:	($162,648)
Investment Earnings:	$456,947
Expenses/Fees*:	($29,415)
Account Balance:	$5,264,704

** Only pertaining to PARS and HighMark/US Bank fees.*

OPEB ACTUARIAL RESULTS

- The most recent actuarial report was prepared by Milliman on a "roll-forward" basis dated March 30, 2022 and has a measurement date as of December 31, 2021. As this is a "roll-forward" valuation, the same census and demographic assumptions used in the last full valuation report (measurement date as of December 31, 2020) apply to this "roll-forward" valuation. In the table below, we have summarized the demographic results.

Demographic Study	Actuarial Measurement Date: December 31, 2020	Actuarial Measurement Date: December 31, 2021
Valuation Type	Full Valuation	Roll-Forward Valuation
Actives	57	57
Retirees	5	5
Total	62	62
Average Active Age	48.41	48.41
Average Active Agency Service	10.55	10.55

OPEB ACTUARIAL RESULTS

	Actuarial Measurement Date: December 31, 2020 Discount Rate: 6.50%	Actuarial Measurement Date: December 31, 2021 Discount Rate: 6.50%
Valuation Type	Full Valuation	Roll-Forward Valuation
Total OPEB Liability (TOL) *Actuarial Accrued Liability (AAL)*	$5,092,000	$5,535,000
Plan Fiduciary Net Position *Actuarial Value of Assets*	$4,666,000	$5,265,000
Net OPEB Liability (NOL) *Unfunded Actuarial Accrued Liability (UAAL)*	$426,000	$270,000
Funded Ratio (%)	91.6%	95.1%
Actuarially Determined Contribution (ADC) *Annual Required Contribution (ARC)*	$268,000 *for 2019-2020*	$257,000 *for 2020-2021*
Annual Benefit Payments (Pay-as-you-Go)	$73,000 *for 2019-2020*	$60,000 *for 2020-2021*

CCCERA OPEB PLAN

Fourth Quarter 2021

Presented by
Andrew Brown, CFA

Economic and Market Forecast

February 2022

2022 Assumptions	
GDP	3.3% - 4.0%
S&P 500 Earnings	$220 - $225
Unemployment	3.6% - 4.4%
Core PCE Inflation	2.8% - 3.3%
Fed Funds Target	0.5% - 1.25%

Source: HighMark Asset Allocation Committee

Selected Period Performance

PARS/CCCERA 115P

Account 6746060500

Period Ending: 12/31/2021

	3 Months	Year to Date (1 Year)	Inception to Date 02/01/2019
Cash Equivalents	.00	.02	.77
Lipper Money Market Funds Index	*.00*	*.00*	*.75*
Total Fixed Income	-.17	-1.12	4.06
Bloomberg US Aggregate Bd Index	*.01*	*-1.54*	*4.55*
Bloomberg Intermediate US Treas Bd Index	*-.57*	*-1.72*	*2.97*
ICE BofA 1-3 Yr US Corp/Govt	*-.53*	*-.41*	*2.25*
Total Equities	5.01	14.77	15.53
Large Cap Funds	10.78	27.76	23.14
S&P 500 Composite Index	*11.03*	*28.71*	*23.60*
Small Cap Funds	3.82	17.31	17.11
Russell 2000 Index	*2.14*	*14.82*	*16.32*
International Equities	1.64	7.06	11.01
MSCI EAFE Index	*2.69*	*11.26*	*11.49*
MSCI EM Free Index	*-1.31*	*-2.54*	*8.11*
RR: REITS	14.98	40.34	15.61
Wilshire REIT Index	*17.14*	*46.18*	*15.41*
Total Managed Portfolio	3.45	9.61	12.08
Total Account Net of Fees	3.37	9.24	11.71
CCCERA OPEB Policy Benchmark	*2.85*	*8.40*	*10.91*

Account Inception: 02/01/2019

The investment program was initiated on January 15, 2019. Performance Inception is as of February 1, 2019. Returns are gross of account level investment advisory fees and net of any fees, including fees to manage mutual fund or exchange traded fund holdings. Returns for periods over one year are annualized. The information presented has been obtained from sources believed to be accurate and reliable. Past performance is not indicative of future returns. Securities are not FDIC insured, have no bank guarantee, and may lose value. CCCERA Policy Benchmark consists of 20% S&P 500 Composite Index, 20% MSCI EAFE Index, 15% MSCI EM Free Index, 15% BBG Barclays US Aggregate Bd Index, 15% ICE BofAML 1-3 Yr US Corp/Govt, 8% BBG Barclays Intermediate US Treas Bd Index, 5% Russell 2000 Index, and 2% Wilshire REIT Index.

Asset Allocation – CCCERA OPEB
As of December 31, 2021

Current Asset Allocation			Investment Vehicle	
Equity	**65.85%**		***Range: 55%-75%***	**$3,465,792**
Large Cap Core	20.38%	IVV	iShares Core S&P 500 ETF	$1,072,751
Large Cap Value	2.00%	IVE	iShares S&P 500 Value ETF	$105,099
Small Cap	7.16%	VB	Vanguard Small-Cap ETF	$376,759
International Core	21.11%	VEA	Vanguard FTSE Developed Markets ETF	$1,111,270
Emerging Markets	12.14%	VWO	Vanguard FTSE Emerging Markets ETF	$638,776
Real Estate	3.06%	VNQ	Vanguard Real Estate ETF	$161,138
Fixed Income	**33.53%**		***Range: 25%-45%***	**$1,764,684**
Short-Term	9.50%	BSV	Vanguard Short-Term Bond ETF	$500,257
Intermediate-Term	6.27%	DBLFX	DoubleLine Core Fixed Income I	$329,779
	6.26%	PTTRX	PIMCO Total Return Instl	$329,681
	6.25%	PTRQX	PGIM Total Return Bond R6	$329,016
	5.24%	GOVT	iShares US Treasury Bond ETF	$275,951
Cash	**0.62%**		***Range: 0%-20%***	**$32,780**
	0.62%	FGZXX	First American Government Oblig Z	$32,780
TOTAL	**100.00%**			**$5,263,256**

CCCERA

For Period Ending December 31, 2021

Fund Name	1-Month Return	3-Month Return	Year-to-Date	1-Year Return	3-Year Return	5-Year Return	10-Year Return
LARGE CAP EQUITY FUNDS							
iShares Core S&P 500 ETF	4.48	11.02	28.66	28.66	26.03	18.44	16.50
iShares S&P 500 Value ETF	7.02	8.28	24.67	24.67	18.46	11.72	13.10
S&P 500 TR USD	**4.48**	**11.03**	**28.71**	**28.71**	**26.07**	**18.47**	**16.55**
SMALL CAP EQUITY FUNDS							
Vanguard Small-Cap ETF	3.48	3.86	17.72	17.72	21.32	13.48	14.16
Russell 2000 TR USD	**2.23**	**2.14**	**14.82**	**14.82**	**20.02**	**12.02**	**13.23**
REAL ESTATE FUNDS							
Vanguard Real Estate ETF	9.70	14.89	40.38	40.38	19.91	11.22	11.50
INTERNATIONAL EQUITY FUNDS							
Vanguard FTSE Developed Markets ETF	4.82	2.99	11.49	11.49	14.50	10.18	8.53
MSCI EAFE NR USD	**5.12**	**2.69**	**11.26**	**11.26**	**13.54**	**9.55**	**8.03**
Vanguard FTSE Emerging Markets ETF	1.77	-0.39	0.96	0.96	11.92	9.49	5.39
MSCI EM NR USD	**1.88**	**-1.31**	**-2.54**	**-2.54**	**10.94**	**9.87**	**5.49**
BOND FUNDS							
DoubleLine Core Fixed Income I	-0.13	-0.23	-0.34	-0.34	4.36	3.53	3.59
iShares US Treasury Bond ETF	-0.62	0.03	-2.54	-2.54	3.92	2.93	--
PGIM Total Return Bond R6	0.03	0.29	-1.16	-1.16	5.89	4.71	4.44
PIMCO Total Return Instl	0.18	0.16	-0.61	-0.61	5.42	4.20	3.70
Vanguard Short-Term Bond ETF	-0.18	-0.74	-1.00	-1.00	2.82	2.20	1.68
Bloomberg US Agg Bond TR USD	**-0.26**	**0.01**	**-1.54**	**-1.54**	**4.79**	**3.57**	**2.90**

Source: SEI Investments, Morningstar Investments

Returns less than one year are not annualized. Past performance is no indication of future results. The information presented has been obtained from sources believed to be accurate and reliable. Securities are not FDIC insured, have no bank guarantee and may lose value.

Meeting Date
04/13/2022
Agenda Item
#13

Contra Costa County Employees' Retirement Association

Actuarial Experience Study

Analysis of Actuarial Experience During the Period January 1, 2018 through December 31, 2020

Segal

Segal

180 Howard Street
Suite 1100
San Francisco, CA 94105-6147
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April 5, 2022

Board of Retirement
Contra Costa County Employees' Retirement Association
1200 Concord Avenue, Suite 300
Concord, CA 94520

Re: Review of Actuarial Assumptions for the December 31, 2021 Actuarial Valuation

Dear Members of the Board:

We are pleased to submit this report of our review of the actuarial experience for the Contra Costa County Employees' Retirement Association (CCCERA). This study utilizes the census data for the period January 1, 2018 to December 31, 2020 and provides the proposed actuarial assumptions, both economic and demographic, to be used in the December 31, 2021 valuation.

We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

We look forward to reviewing this report with you and answering any questions you may have.

Sincerely,

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

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

EK/mv

Table of Contents

1. Introduction, Summary, and Recommendations

To project the cost and liabilities of the pension plan, assumptions are made about all future events that could affect the amount and timing of the benefits to be paid and the assets to be accumulated. Each year actual experience is compared against the projected experience, and to the extent there are differences, the future contribution requirement is adjusted.

If assumptions are modified, contribution requirements are adjusted to take into account a change in the projected experience in all future years. There is a great difference in both philosophy and cost impact between recognizing the actuarial deviations as they occur annually and changing the actuarial assumptions. Taking into account one year's gains or losses without making a change in the assumptions means that year's experience is treated as temporary and that, over the long run, experience will return to what was originally assumed. For example, it is impossible to determine how and to what extent the economy will be affected by the COVID-19 pandemic.[1] Changing assumptions reflects a basic change in thinking about the future, and has a much greater effect on the current contribution requirements than recognizing gains or losses as they occur.

The use of realistic actuarial assumptions is important in maintaining adequate funding, while paying the promised benefit amounts to participants already retired and to those near retirement. The actuarial assumptions used do not determine the "actual cost" of the plan. The actual cost is determined solely by the benefits and administrative expenses paid out, offset by investment income received. However, it is desirable to estimate as closely as possible what the actual cost will be so as to permit an orderly method for setting aside contributions today to provide benefits in the future, and to maintain equity among generations of participants and taxpayers.

This study was undertaken in order to review the economic and demographic actuarial assumptions and to compare the actual experience with that expected under the current assumptions during the three-year experience period from January 1, 2018 through December 31, 2020. The study was performed in accordance with Actuarial Standard of Practice (ASOP) No. 27 "Selection of Economic Assumptions for Measuring Pension Obligations"[2] and ASOP No. 35 "Selection of Demographic and Other Non-Economic Assumptions for Measuring Pension Obligations." These Standards of Practice provide guidance for the selection of the various actuarial assumptions utilized in a pension plan actuarial valuation. Based on the study's results and expected future experience, we are recommending various changes in the current actuarial assumptions.

We are recommending changes in the assumptions for inflation, investment return, merit and promotion salary increases, retirement from active employment, retirement age for deferred vested members, reciprocal salary increases, pre-retirement mortality, post-retirement healthy and disabled life mortality, termination, disability incidence (non-service connected and service connected), leave cashouts, and sick leave conversion.

[1] An analysis of the ongoing impact of the COVID-19 pandemic is beyond the scope of the current experience study.
[2] References made later in this report are with respect to the revised ASOP 27 adopted in June 2020.

Our recommendations for the major actuarial assumption categories are as follows:

Pg #	Actuarial Assumption Categories	Recommendation
12	**Inflation:** Future increases in the Consumer Price Index (CPI), which drives investment returns and active member salary increases.	Reduce the inflation assumption from 2.75% to 2.50% per annum as discussed in Section (3)(A).
13	**Retiree Cost of Living Increases:** Future increases in the cost of living adjustment for retirees.	For those tiers with a 3% or 4% maximum cost of living adjustment, maintain the retiree cost of living assumption at 2.75% per annum (based on our recommended inflation assumption of 2.50% plus a margin for adverse deviation of 0.25%) as discussed in Section (3)(A). For those tiers with a 2% maximum cost of living adjustment, maintain the retiree cost of living assumption at 2% per annum as discussed in Section (3)(A).
15	**Investment Return:** The estimated average future net rate of return on current and future assets of the Association as of the valuation date. This rate is used to discount liabilities.	Reduce the investment return assumption from 7.00% to 6.75% per annum as discussed in Section (3)(B).
22	**Individual Salary Increases:** Increases in the salary of a member between the date of the valuation to the date of separation from active service. This assumption has three components: • Inflationary salary increases • Real "across the board" salary increases • Merit and promotion increases	Reduce the current inflationary salary increase assumption from 2.75% to 2.50% and maintain the current real "across the board" salary increase assumption at 0.50%. This means that the combined inflationary and real "across the board" salary increases will decrease from 3.25% to 3.00%. We recommend adjusting the merit and promotion rates of salary increase as developed in Section (3)(C) to reflect past experience. Overall future merit and promotion salary increases are lower for General members and higher for Safety members under the proposed assumptions. The recommended total rates of salary increase anticipate slightly lower increases overall than the current assumptions for both General and Safety.
28	**Administrative Expenses:** Expenses incurred in connection with the plan's operation.	Maintain the administrative expense load assumption to be equal to the actual administrative expenses for the prior year as a percent of actual payroll for the prior year. Based on the December 31, 2020 valuation, the administrative expense load was 1.14% of payroll.

Pg #	Actuarial Assumption Categories	Recommendation
29	**Retirement Rates:** The probability of retirement at each age at which participants are eligible to retire. **Other Retirement Related Assumptions including:** • Percent married and spousal age differences for members not yet retired • Retirement age for deferred vested members • Future reciprocal members and reciprocal salary increases	For active members, adjust the current retirement rates to those developed in Section (4)(A). The retirement rate assumptions anticipate later retirements for General members overall. The retirement rate assumptions anticipate later retirements for Safety Tier A Enhanced and earlier retirements for Safety Tier C, Tier A Non-Enhanced, Tier D and Tier E members. For inactive vested members that work for a reciprocal employer, increase the assumed retirement age from 59 to 60 for General members and maintain the assumed retirement age of 53 for Safety members. For inactive vested members that do not work for a reciprocal employer, increase the assumed retirement age from 59 to 60 for General members and increase the assumed retirement age from 50 to 51 for Safety members. Maintain the current proportion of future terminated members expected to be covered by a reciprocal system of 40% for General members and 70% for Safety members. In addition, reduce the current reciprocal salary increase assumptions to 3.50% for General members and 4.00% for Safety members. For active and deferred vested members, maintain the percent married at retirement assumption at 65% for males and 50% for females. Maintain the spouse age difference assumption that male retirees are three years older than their spouses and maintain the assumption that female retirees are two years younger than their spouses.

Pg #	Actuarial Assumption Categories	Recommendation
45	**Mortality Rates:** The probability of dying at each age. Mortality rates are used to project life expectancies.	**Healthy Retirees:** Current & Recommended base table for General Members: Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table. Current base table for Safety Members: Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table increased by 5% for males and unadjusted for females. Recommended base table for Safety Members: Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table increased by 5% for males and decreased by 5% for females. **All Beneficiaries:** Current & Recommended base table: Pub-2010 Contingent Survivor Amount-Weighted Above-Median Mortality Table increased by 5% for males and females. For the purposes of the actuarial valuations (for funding and financial reporting), when calculating the liability for the continuance to a beneficiary of a surviving member we recommend that the General Healthy Retiree mortality tables be used for beneficiary mortality both before and after the expected death of the General or Safety member. Upon the actual death of the member (i.e. for all beneficiaries in pay status as of the valuation date), we recommend for the purposes of the actuarial valuations that we use the Contingent Survivor mortality tables as stated above. **Pre-Retirement Mortality:** Current & Recommended base table for General Members: Pub-2010 General Employee Amount-Weighted Above-Median Mortality Table. Current & Recommended base table for Safety Members: Pub-2010 Safety Employee Amount-Weighted Above-Median Mortality Table. **Disabled Retirees:** Current & Recommended base table for General Members: Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Table increased by 5% for males and unadjusted for females. Current & Recommended base table for Safety Members: Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table increased by 5% for males and unadjusted for females. **All current tables** are projected generationally with the two-dimensional mortality improvement scale MP-2018. **All recommended tables** are projected generationally with the two-dimensional mortality improvement scale MP-2021. **For member contribution rates and optional forms:** change the mortality rates to those developed in Section (4)(B).
58	**Termination Rates:** The probability of leaving employment at each age and receiving either a refund of member contributions or a deferred vested retirement benefit.	We recommend adjusting the termination rates to those developed in Section (4)(D) to reflect a slightly higher incidence of termination for General members and a lower incidence of termination for Safety members.
62	**Disability Incidence Rates:** The probability of becoming disabled at each age.	We recommend adjusting the disability rates to those developed in Section (4)(E) to reflect a slightly lower incidence of disability overall for General and a slightly higher incidence of disability overall for Safety members.

Pg #	Actuarial Assumption Categories	Recommendation
68	**Leave Cashouts:** Additional pay elements that are expected to be received during the member's final average earnings period.	Adjust the current leave cashout assumptions to those developed in Section (4)(F). The recommended assumptions will anticipate slightly lower leave cashouts overall.
72	**Service from Unused Sick Leave Conversions:** Additional service that is expected to be received when the member retires due to conversion of unused sick leave.	Adjust the current service from unused sick leave conversion assumptions to those developed in Section (4)(G) The recommended assumptions will anticipate less sick leave conversions.

We have estimated the impact of all the recommended economic and demographic assumptions as if they were applied to the December 31, 2020 actuarial valuation. The table below shows the changes in the employer and member contribution rates due to the proposed assumption changes separately for the recommended economic assumption changes (as recommended in Section 3 of this report which include the recommended merit and promotion salary increases) and the recommended demographic assumption changes (as recommended in Section 4 of this report).

Cost Impact of the Recommended Assumptions Based on December 31, 2020 Actuarial Valuation

Assumption	Impact on Average Employer Contribution Rates
Increase due to changes in economic assumptions	2.69%
Decrease due to changes in demographic assumptions	-0.54%
Total increase in average employer rate	**2.15%**
Total estimated increase in annual dollar amount ($000s)[1]	**$20,306**

Assumption	Impact on Weighted Average Member Contribution Rates
Increase due to changes in economic assumptions	0.39%
Decrease due to changes in demographic assumptions	-0.08%
Total increase in average member rate	**0.31%**
Total estimated increase in annual dollar amount ($000s)[1]	**$2,742**

	Impact on UAAL and Funded Percentage
Increase in UAAL ($000s)	$228,248
Change in Funded Percentage	91.8% to 89.9%

Of the various assumption changes, the most significant rate increase is due to the change in the investment return assumption.

[1] Based on December 31, 2020 projected annual payroll as determined under each set of assumptions.

Section 2 provides some background on the basic principles and methodology used for the experience study and for the review of the economic and demographic actuarial assumptions. A detailed discussion of each assumption and reasons for the proposed changes are found in Section 3 for the economic assumptions and Section 4 for the demographic assumptions. The cost impact of the proposed changes is detailed in Section 5.

2. Background and Methodology

In this report, we analyzed both economic and demographic ("non-economic") assumptions. The primary economic assumptions reviewed are inflation, investment return, salary increases, and administrative expenses. Demographic assumptions include the probabilities of certain events occurring in the population of members, referred to as "decrements," e.g., termination from service, disability retirement, service retirement, and death before and after retirement. In addition to decrements, other demographic assumptions reviewed in this study include the percentage of members with an eligible spouse or domestic partner, spousal age difference, percent of members assumed to go on to work for a reciprocal system, reciprocal salary increases, leave cashouts and conversion of service from unused sick leave.

Economic Assumptions

Economic assumptions consist of:

- **Inflation:** Increases in the price of goods and services. The inflation assumption reflects the basic return that investors expect from securities markets. It also reflects the expected basic salary increase for active employees and drives increases in the allowances of retired members (if any).
- **Investment Return:** Expected long-term rate of return on the Association's investments after investment expenses. This assumption has a significant impact on contribution rates.
- **Salary Increases:** In addition to inflationary increases, it is assumed that salaries will also grow by real "across the board" pay increases in excess of price inflation. It is also assumed that employees will receive raises above these average increases as they advance in their careers. These are commonly referred to as merit and promotion increases. Payments to amortize any Unfunded Actuarial Accrued Liability (UAAL) are assumed to increase each year by the price inflation rate plus any real "across the board" pay increases that are assumed.
- **Administrative Expenses:** These include expenses incurred in connection with the Plan's operation.

The setting of these economic assumptions is described in Section 3.

Demographic Assumptions

In order to determine the probability of an event occurring, we examine the "decrements" and "exposures" of that event. For example, taking termination from service, we compare the number of employees who actually terminate in a certain age and/or service category (i.e., the number of "decrements") with those who could have terminated (i.e., the number of "exposures"). For example, if there were 500 active employees in the 20-24 age group at the beginning of the year and 50 of them left during the year, we would say the probability of termination in that age group is 50 ÷ 500 or 10%.

The reliability of the resulting probability is highly dependent on both the number of decrements and the number of exposures. For example, if there are only a few people in a high age category at the beginning of the year (number of exposures), we would not lend as much

credibility to the probability of termination developed for that age category, especially if it is out of line with the pattern shown for the other age groups. Similarly, if we are considering the death decrement, there may be a large number of exposures in the age 20-24 category, but very few decrements (actual deaths); therefore, we would not be able to rely heavily on the probability developed for that category.

One reason we use several years of experience for such a study is to have more exposures and decrements, and therefore more statistical reliability. Another reason for using several years of data is to smooth out fluctuations that may occur from one year to the next. However, we also calculate the rates on a year-to-year basis to check for any trend that may be developing in the later years.

3. Economic Assumptions

A. Inflation

Unless an investment grows at least as fast as prices increase, investors will experience a reduction in the inflation-adjusted value of their investment. There may be times when "riskless" investments return more or less than inflation, but over the long term, investment market forces will generally require an issuer of fixed income securities to maintain a minimum return which protects investors from inflation.

The inflation assumption is long term in nature, so our analysis begins with a review of historical information. Following is an analysis of 15 and 30 year moving averages of historical inflation rates:

Historical Consumer Price Index – 1930 to 2021[1]
(U.S. City Average - All Urban Consumers)

	25th Percentile	Median	75th Percentile
15-year moving averages	2.4%	3.3%	4.4%
30-year moving averages	2.9%	3.7%	4.8%

With the exception of the spike in inflation in 2021[2], the average inflation rates have continued to decline gradually over the last several years due to the relatively low inflationary environment over the past two decades. Also, the later 15-year averages during the period are lower because they do not include the high inflation years of the mid-1970s and early 1980s.

Based on information found in the Public Plans Database, which is produced in partnership with the National System of State Retirement Administrators (NASRA), the median inflation assumption used by 188 large public retirement funds in their 2020 fiscal year valuations was 2.50%.[3] In California, CalSTRS and thirteen 1937 Act CERL systems use an inflation assumption of 2.75%, seven 1937 Act CERL systems use an inflation assumption of 2.50%[4] and CalPERS uses an inflation assumption of 2.30%.

CCCERA's investment consultant, Verus, anticipates an annual inflation rate of 2.30%, while the average inflation assumption provided by Verus and five other investment advisory firms retained by Segal's California public sector clients, as well as Segal's investment advisory division (Segal Marco Advisor) [5], was 2.31%. Note that, in general, investment consultants use a

[1] Source: Bureau of Labor Statistics – Based on annual-to-annual CPI for All Items in U.S. city average, all urban consumers, not seasonally adjusted (Series ID: CUUR0000SA0).
[2] The inflation rate from December 2020 to December 2021 was 7.0% while the inflation rate from all of calendar year 2020 to 2021 was 4.7%.
[3] Among 209 large public retirement funds, the 2020 fiscal year inflation assumption was not available for 21 of the public retirement funds in the survey data as of March 2022.
[4] Two of these 1937 Act CERL systems use a 2.50% inflation assumption with a 2.75% COLA assumption.
[5] We note that this is the first time we have included inflation and real rate of return assumptions used by Segal Marco Advisor in our review of economic assumptions.

time horizon for this assumption that is shorter than the time horizon we use for the actuarial valuation.[1]

To find a forecast of inflation based on a longer time horizon, we referred to the Social Security Administration's (SSA) 2021 report on the financial status of the Social Security program.[2] The projected average increase in the Consumer Price Index (CPI) over the next 75 years under the intermediate cost assumptions used in that report was 2.40%. The SSA report also includes alternative projections using lower and higher inflation assumptions of 1.80% and 3.00%, respectively.

We also compared the yields on the thirty-year inflation indexed U.S. Treasury bonds to comparable traditional U.S. Treasury bonds.[3] As of February 2022, the difference in yields is about 2.18% which provides a measure of market expectations of inflation. It is worth noting that this market expectation for long term inflation has remained low despite the recent spike in inflation.

Based on all of the above information, we recommend reducing the annual inflation assumption from 2.75% to 2.50%.

The setting of the inflation assumption using the information outlined above is a somewhat subjective process, and Segal does not apply a specific weight to each of the metrics in determining our recommended inflation assumption. Based on a consideration of all of the above metrics, beginning in 2021 we are generally recommending the same 2.50% inflation assumption in our experience studies for our California public retirement system clients.

Retiree Cost of Living Increases

In our last experience study as of December 31, 2018, consistent with the 2.75% annual inflation assumption adopted by the Board for that valuation, the Board used a 2.75% cost of living adjustment assumption for all retirees in tiers with a maximum COLA of 3% or 4%.

In the last experience study, we set the recommended post-retirement cost-of-living adjustment (COLA) assumption to be equal to our recommended inflation assumption. However, we observed in the table below that during the most recent 5-year, 10-year and 20-year periods ending before December 31, 2021, the changes in the December-to-December CPI based on San Francisco-Oakland-Hayward area used by the Board to set COLAs have exceeded those of the December-to-December CPI for the U.S. City Average.

	Change in Dec-to-Dec CPI for San Francisco-Oakland-Hayward Area	Change in Dec-to-Dec CPI for U.S. City Average
5-Year Period	3.22%	2.92%
10-Year Period	3.03%	2.14%
20-Year Period	2.56%	2.30%

[1] The time horizon used by the six investment consultants included in our review generally ranges from 10 years to 30 years, with Verus using a 30 year-horizon.

[2] Source: Social Security Administration: The 2021 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds

[3] Source: Board of Governors of the Federal Reserve System.

In order to reflect this experience and to mitigate actuarial losses which may arise from future COLA increases greater than the inflation assumption, we believe it is reasonable for the Board to consider adopting an extra margin above the general price inflation in anticipating future COLAs. **Our recommended COLA assumption of 2.75% includes a 0.25% margin above our recommended inflation assumption for retirees in tiers with a maximum COLA of 3% or 4%, which leaves the COLA assumption unchanged as shown below for retirees in all tiers.**

Maximum COLA	Current Assumption	Proposed Assumption
2.00%	2.00%	2.00%
3.00%	2.75%	2.75%
4.00%	2.75%	2.75%

In developing the COLA assumption, we also considered the results of a stochastic approach that would attempt to account for the possible impact of low inflation that could occur before COLA banks are able to be established for the member. Although the results of this type of analysis might justify the use of a lower COLA assumption, we are not recommending that at this time. The reasons for this conclusion include the following:

- The results of the stochastic modeling are significantly dependent on assuming that lower levels of inflation will persist in the early years of the projections. If this is not assumed, then the stochastic modeling will produce results similar to our proposed COLA assumptions.
- Using lower long-term COLA assumptions based on a stochastic analysis would mean that an actuarial loss would occur even when the inflation assumption of 2.75% is met in a year. We question the reasonableness of this result.

We do not see the stochastic possibility of COLAs averaging less than those predicted by the assumed rate of inflation as a reliable source of cost savings that should be anticipated in our COLA assumptions. Therefore, with this experience study, we recommend setting the COLA assumptions consistent with the COLA assumption we have used in prior years.

B. Investment Return

The investment return assumption is comprised of two primary components, inflation and real rate of investment return, with adjustments for expenses and risk.

Real Rate of Investment Return

This component represents the portfolio's incremental investment market returns over inflation. Generally when an investor takes on greater investment risk, the return on the investment is expected to also be greater, at least in the long run. This additional risk and return is expected to vary by asset class and empirical data supports that expectation. For that reason, the real rate of return assumptions are developed by asset class. Therefore, the real rate of return assumption for a retirement association's portfolio will vary with the Board's asset allocation among asset classes.

The Association's current target asset allocation and the assumed real rate of return assumptions by asset class are shown in the following table. The first column of real rate of return assumptions are determined by reducing Verus' total or "nominal" 2022 return assumptions by their assumed 2.30% inflation rate. The second column of returns (except certain asset classes as noted in the table) represents the average of a sample of real rate of return assumptions. The sample includes the expected annual real rate of return provided to us by Verus and five other investment advisory firms retained by Segal's public sector clients, as well as Segal's investment advisory division. We believe these averages are a reasonable consensus forecast of long-term future market returns in excess of inflation.[1]

[1] Note that, just as for the inflation assumption, in general the time horizon used by the investment consultants in determining the real rate of return assumption is shorter than the time horizon encompassed by the actuarial valuation.

CCCERA's Target Asset Allocation and Assumed Arithmetic Real Rate of Return Assumptions by Asset Class and for the Portfolio

Asset Class	Percentage of Portfolio	Verus' Assumed Real Rate of Return[1]	Average Assumed Real Rate of Return from a Sample of Consultants to Segal's California Public Sector Clients[2]
Large Cap Equity	10.00%	4.50%	5.40%
Small Cap Equity	3.00%	5.50%	6.17%
Developed International Equity	10.00%	5.30%	6.13%
Emerging Market Equity	9.00%	6.40%	8.17%
Core Fixed	4.00%	0.70%	0.39%
Short-Term Credit	14.00%	0.60%	-0.14%
Cash & Equivalents	3.00%	-1.70%	-0.73%
Private Equity	15.00%	11.70%	10.83%
Private Credit	13.00%	5.50%	5.93%
Infrastructure	3.00%	6.30%	6.30%[3]
Value Add Real Estate	5.00%	7.20%	7.20%[3]
Opportunistic Real Estate	5.00%	8.50%	8.50%[3]
Risk Parity	3.00%	3.80%	3.80%[3]
Hedge Funds	3.00%	2.40%	2.40%[3]
Total	**100.00%**	**5.41%**	**5.60%**

The above are representative of "indexed" returns and do not include any additional returns ("alpha") from active management. This is consistent with the Actuarial Standard of Practice No. 27, Section 3.8.3.d, which states:

> "Investment Manager Performance - Anticipating superior (or inferior) investment manager performance may be unduly optimistic (or pessimistic). The actuary should not assume that superior or inferior returns will be achieved, net of investment expenses, from an active investment management strategy compared to a passive investment management strategy unless the actuary believes, based on relevant supporting data, that such superior or inferior returns represent a reasonable expectation over the measurement period."

The following are some observations about the returns provided above:

[1] The rates shown have been estimated by Segal by taking Verus' nominal arithmetic returns and reducing by Verus' assumed 2.30% inflation rate to develop the assumed real rate of return shown.

[2] These are based on the projected arithmetic returns provided by Verus and five other investment advisory firms serving the county retirement system of CCCERA and 16 other city and county retirement systems in California, as well as Segal's investment advisory division. These return assumptions are gross of any applicable investment expenses.

[3] For these asset classes, Verus' assumption is applied in lieu of the average because there is a larger disparity in returns for these asset classes among the firms surveyed and using Verus' assumption should more closely reflect the underlying investments made specifically for CCCERA.

1. The investment consultants to our California public sector clients, as well as Segal's investment advisory division, have each provided us with their expected real rates of return for each asset class, over various future periods of time. However, in general, the returns available from investment consultants are projected over time periods that are shorter than the durations of a retirement plan's liabilities.
2. Using a sample average of expected real rate of returns allows CCCERA's investment return assumption to reflect a broader range of capital market information and should help reduce year to year volatility in the investment return assumption.
3. Therefore, we recommend that the 5.60% portfolio real rate of return be used to determine CCCERA's investment return assumption. This is 0.09% higher than the return that was used three years ago in the review of the recommended investment return assumption for the December 31, 2018 valuation. The difference is due to changes in the real rate of return assumptions provided to us by the investment advisory firms (-0.69% under the 2019 asset allocation), changes in the CCCERA's target asset allocation (+0.54%) and the interaction effect between these changes (+0.24%).

Investment Expenses

For funding purposes, the real rate of return assumption for the portfolio needs to be adjusted for investment expenses expected to be paid from investment income. The following table provides the investment expenses in relation to the actuarial value of assets as of the beginning of the year, for the five-year period ending December 31, 2020.

Investment Expenses as a Percentage of Actuarial Value of Assets (Dollars in 000's)

Year Ending December 31	Actuarial Value of Assets[1]	Investment Expenses[2]	Investment %
2016	$7,151,936	$46,328	0.65
2017	7,622,351	42,865	0.56
2018	8,195,517	45,149	0.55
2019	8,666,778	48,103	0.56
2020	9,144,580	45,230	0.49
Five-Year Average			**0.56**
Three-Year Average			**0.53**
Current Assumption			**0.65**
Proposed Assumption			**0.60**

Based on the above experience, we recommend reducing the investment expense assumption from 0.65% to 0.60%.

[1] As of beginning of plan year.
[2] Net of securities lending expenses. Because we do not assume any additional net return for this program, we effectively assume that any securities lending expenses will be offset by related income.

Note related to investment expenses paid to active managers – As cited above, under Section 3.8.3.d of ASOP No. 27, the effect of an active investment management strategy should be considered "net of investment expenses…unless the actuary believes, based on relevant data, that such superior or inferior returns represent a reasonable expectation over the measurement period."

We have not performed a detailed analysis to measure how much of the investment expenses paid to active managers might have been offset by additional returns ("alpha") earned by that active management. However, we observe based on information available from the Association's Annual Comprehensive Financial Report as of December 31, 2020 that over a 10-year period, the fund's return was below the benchmark return by about 0.6%. For now, we will continue to use the current approach that any "alpha" that may be identified would be treated as an increase in the risk adjustment and corresponding confidence level. For example, 0.25% of alpha would increase the confidence level by 3% (see discussions that follow on definitions of risk adjustment and confidence level).

Risk Adjustment

The real rate of return assumption for the portfolio is adjusted to reflect the potential risk of shortfalls in the return assumptions. CCCERA's asset allocation determines this portfolio risk, since risk levels are driven by the variability of returns for the various asset classes and the correlation of returns among those asset classes. This portfolio risk is incorporated into the real rate of return assumption through a risk adjustment.

The purpose of the risk adjustment (as measured by the corresponding confidence level) is to increase the likelihood of achieving the actuarial investment return assumption in the long term.[1] This is consistent with our experience that retirement plan fiduciaries would generally prefer that returns exceed the assumed rate more often than not.

The 5.60% expected real rate of return developed earlier in this report was based on expected mean or average arithmetic returns. In our model, the confidence level associated with a particular risk adjustment represents the relative likelihood that future investment earnings would equal or exceed the assumed earnings over a 15-year period on an expected value basis.[2] The 15-year time horizon represents an approximation of the "duration" of the fund's liabilities, where the duration of a liability represents the sensitivity of that liability to interest rate variations. Note that, based on the investment return assumptions recently adopted by systems that have been analyzed under this model, we observe a confidence level in the range of 50% to 60%.

Three years ago, the Board adopted an investment return assumption of 7.00%. That return implied a risk adjustment of 0.61%, reflecting a confidence level of 59% that the actual average return over 15 years would not fall below the assumed return, assuming that the distribution of returns over that period follows the normal statistical distribution.[3]

[1] This type of risk adjustment is referred to in the Actuarial Standards of Practice as a "margin for adverse deviation."

[2] If a retirement system uses the expected arithmetic average return as the discount rate in the funding valuation, that retirement system is expected to have no surplus or asset shortfall relative to its expected obligations assuming all actuarial assumptions are met in the future.

[3] Based on an annual portfolio return standard deviation of 10.30% provided by Verus in 2019. Strictly speaking, future compounded long-term investment returns will tend to follow a log-normal distribution. However, we believe the normal distribution assumption is reasonable for purposes of setting this type of risk adjustment.

If we use the same 59% confidence level from our last study to set this year's risk adjustment and the current long-term portfolio standard deviation of 12.50% provided by Verus, the corresponding risk adjustment would be 0.74%. Together with the other investment return components, this would result in an investment return assumption of 6.76%, which is lower than the current assumption of 7.00%.

Based on the general practice of using one-quarter percentage point increments for economic assumptions, we evaluated the effect on the confidence level of other alternative investment return assumptions. In particular, a net investment return assumption of 6.75%, together with the other investment return components, would produce a risk adjustment of 0.75% which corresponds to a confidence level of 59%. The current net investment return assumption of 7.00% would have a confidence level below 56%.

The table below shows CCCERA's recommended investment return assumption and the corresponding risk adjustment and confidence level compared to the similar values for prior studies.

Historical Investment Return Assumptions, Risk Adjustments and Confidence Levels based on Assumptions Adopted by the Board

Years Ending December 31	Investment Return	Risk Adjustment	Corresponding Confidence Level
2006 - 2008	7.80%	0.86%	60%
2009 - 2011	7.75%	0.41%	55%
2012 - 2014	7.25%	0.25%	53%
2015 - 2017	7.00%[1]	0.30%	54%
2018 - 2020	7.00%[1]	0.61%	59%
2021 (Recommended)	6.75%[1]	0.75%	59%

As we have discussed in prior experience studies, the risk adjustment model and associated confidence level is most useful as a means for comparing how CCCERA has positioned itself relative to risk over periods of time.[2] The use of a 59% confidence level under Segal's model should be considered in context with other factors, including:

- As noted above, the confidence level is more of a relative measure than an absolute measure, and so can be reevaluated and reset for future comparisons.
- The confidence level is based on the standard deviation of the portfolio that is determined and provided to us by Verus. The standard deviation is a statistical measure of the future volatility of the portfolio and so is itself based on assumptions about future portfolio volatility and can be considered somewhat of a "soft" number.
- A confidence level of 59% is at the higher end of the range of about 50% to 60% that corresponds to the risk adjustments used by most of Segal's other California public retirement system clients.

[1] These investment return assumptions are gross of administrative expenses.
[2] In particular, it would not be appropriate to use this type of risk adjustment as a measure of determining an investment return rate that is "risk-free."

- We have not taken into account any additional returns ("alpha") that might be earned on active management. This means that if active management generates enough alpha to cover its related expenses, this would increase returns. This aspect of Segal's model is further evaluated below.
- As with any model, the results of the risk adjustment model should be evaluated for reasonableness and consistency. This is discussed in the later section on "Comparison with Other Public Retirement Systems."

Recommended Investment Return Assumption

The following table summarizes the components of the recommended investment return assumption developed in the previous discussion. For comparison purposes, we have also included similar values from the last study.

Calculation of Investment Return Assumption

Assumption Component	December 31, 2021 Recommended	December 31, 2018 Adopted Value
Inflation	2.50%	2.75%
Portfolio Real Rate of Return	5.60%	5.51%
Expense Adjustment	(0.60%)	(0.65%)
Risk Adjustment	(0.75%)	(0.61%)
Total	**6.75%**	**7.00%**
Confidence Level	**59%**	**59%**

Based on this analysis, we recommend reducing the investment return assumption from 7.00% to 6.75% per annum.

Comparison with Alternative Model used to Review Investment Return Assumption

In previous studies, we have consistently reviewed investment return assumptions based on our model that incorporates expected arithmetic real returns for the different asset classes and for the entire portfolio as one component of that model.[1] The use of "forward looking expected arithmetic returns" is one of the approaches discussed for use in the Selection of Economic Assumptions for measuring Pension Obligations under Actuarial Standards of Practice (ASOP) No. 27.

Besides using forward looking expected arithmetic returns, ASOP No. 27 also discusses setting investment return assumptions using an alternative "forward looking expected geometric returns" approach.[2] Even though expected geometric returns are lower than expected arithmetic returns, public retirement systems that have set investment return assumptions using this alternative approach have in practice adopted investment return assumptions that are

[1] Again, as discussed in the footnote to "Risk Adjustment", if a retirement system uses the expected arithmetic average return as the discount rate in the funding valuation, that retirement system is expected to have no surplus or asset shortfall relative to its expected obligations assuming all actuarial assumptions are met in the future.

[2] If a retirement system uses the expected geometric average return as the discount rate in the funding valuation, that retirement system is expected to have an asset value that generally converges to the median accumulated value as the time horizon lengthens assuming all actuarial assumptions are met in the future.

comparable to those adopted by the Board for CCCERA. This is because under the model used by those retirement systems, their investment return assumptions are not reduced to anticipate future investment expenses.[1]

For comparison, we evaluated the recommended 6.75% assumption based on the expected geometric return for the entire portfolio, gross of the investment expenses. Under that model, over a 15-year period, there is a 58% likelihood that future average geometric returns will meet or exceed 6.75%.[2]

Comparing with Other Public Retirement Systems

One final test of the recommended investment return assumption is to compare it against those used by other public retirement systems, both in California and nationwide.

We note that an investment return of 7.00% or lower is the most common among California public sector retirement systems. In particular, of the twenty 1937 Act CERL systems, eleven use a 7.00% investment return assumption, five use 6.75%, one uses 6.50% and one uses 6.25%. The remaining two 1937 Act CERL systems currently use a 7.25% earnings assumption. Furthermore, CalSTRS currently uses a 7.00% earnings assumption and CalPERS uses a 6.80% earnings assumptions, while the San Jose and San Diego City retirement systems use investment return assumptions of 6.625% and 6.50%, respectively.

The following table compares CCCERA's recommended net investment return assumption against those of the 207 large public retirement funds in their 2021 fiscal year valuations based on information found in the Public Plans Database, which is produced in partnership with NASRA:[3]

		Public Plans Data[4]		
Assumption	**CCCERA**	**Low**	**Median**	**High**
Net Investment Return	6.75%	4.25%	7.00%	8.25%

The detailed survey results show that more than 80% of the systems have an investment return assumption in the range of 6.75% to 7.50%. Also, over half of the systems have reduced their investment return assumption from 2017 to 2021. State systems outside of California tend to change their economic assumptions less frequently and so may lag behind emerging practices in this area.

In summary, we believe the recommended assumption of 6.75% provides for an appropriate risk margin within the risk adjustment model and is consistent with CCCERA's historical practice relative to other public systems.

[1] This means that if the model were to be applied to CCCERA, the expected geometric return would not be adjusted for the approximately 0.60% investment expenses paid by CCCERA.

[2] We performed this stochastic simulation using the capital market assumptions included in the 2021 survey prepared by Horizon Actuarial Services. That simulation was performed using 10,000 trial outcomes of future market returns, using assumptions from 20-year arithmetic returns, standard deviations and correlation matrix that were found in the 2021 survey that included responses from 39 investment advisors.

[3] Among 209 large public retirement funds, the 2021 fiscal year investment return assumption was not available for 2 of the public retirement funds in the Public Plans Database as of March 2022.

[4] Public Plans Data website – Produced in partnership with the National System of State Retirement Administrators (NASRA).

C. Salary Increase

Salary increases impact plan costs in two ways: (1) by increasing members' benefits (since benefits are a function of the members' highest average pay) and future normal cost collections; and (2) by increasing total active member payroll which in turn generates lower UAAL contribution rates as a percent of payroll. These two impacts are discussed separately as follows:

As an employee progresses through his or her career, increases in pay are expected to come from three sources:

1. **Inflation:** Unless pay grows at least as fast as consumer prices grow, employees will experience a reduction in their standard of living. There may be times when pay increases lag or exceed inflation, but over the long term, labor market forces may require an employer to maintain its employees' standards of living.

   As discussed earlier in this report, we recommend reducing the annual inflation assumption from 2.75% to 2.50%. This inflation component is used as part of the salary increase assumption.

2. **Real "Across the Board" Pay Increases:** These increases are typically termed productivity increases since they are considered to be derived from the ability of an organization or an economy to produce goods and services in a more efficient manner. As that occurs, at least some portion of the value of these improvements can provide a source for pay increases. These increases are typically assumed to extend to all employees "across the board". The State and Local Government Workers Employment Cost Index produced by the Department of Labor provides evidence that real "across the board" pay increases have averaged about 0.5% – 0.8% annually during the last ten to twenty years.

   We also referred to the annual report on the financial status of the Social Security program published in August 2021. In that report, real "across the board" pay increases are forecast to be 1.2% per year under the intermediate assumptions.

   The real pay increase assumption is generally considered a more "macroeconomic" assumption that is not necessarily based on individual plan experience. However, recent salary experience with public systems in California as well as anecdotal discussions with plans and plan sponsors indicate lower future real wage growth expectations for public sector employees. We note that for CCCERA's active members, the actual average inflation plus "across the board" increase (i.e., wage inflation) over the three year period ending December 31, 2020 was 4.56%, which is greater than the change in CPI of 2.96% during that same period:

Valuation Date	Actual Average Increase[1]	Actual Annual-to-Annual Change in CPI[2]
December 31, 2018	4.10%	3.87%
December 31, 2019	4.22%	3.31%
December 31, 2020	5.37%	1.72%
Three-Year Average	**4.56%**	**2.96%**

[1] Reflects the increase in average salary for members at the beginning of the year versus those at the end of the year. It does not reflect the average salary increases received by members who worked the full year.

[2] Based on the change in the Annual CPI index for the San Francisco-Oakland-Hayward Area compared to the prior year.

Based on all of the above information, we recommend maintaining the real "across the board" salary increase assumption at 0.50%. This means that the combined inflation and "across the board" salary increase assumption will decrease from 3.25% to 3.00%.

3. **Merit and Promotion Increases:** As the name implies, these increases come from an employee's career advances. This form of pay increase differs from the previous two, since it is specific to the individual. For CCCERA, there are service-specific merit and promotion increase assumptions.

   The annual merit and promotion increases are determined by measuring the actual increases received by members over the experience period, net of the inflationary and real "across the board" pay increases. Increases are measured separately for General and Safety members. This is accomplished by:

   a. Measuring each continuing member's actual salary increase over each year of the experience period on a salary-weighted basis, with higher weights assigned to experience from members with larger salaries;
   b. Excluding any members with increases of more than 50% or decreases of more than 25% during any particular year;
   c. Categorizing these increases according to member demographics;
   d. Removing the wage inflation component from these increases (assumed to be equal to the increase in the members' average salary during the year);
   e. Averaging these annual increases over the experience period; and
   f. Modifying current assumptions to reflect some portion of these measured increases reflective of their "credibility."

   To be consistent with the other economic assumptions, these merit and promotion assumptions should be used in combination with the total 3.00% assumed inflation and real "across the board" increases recommended in this study.

   Due to the high variability of the actual salary increases, we have analyzed this assumption using data for the past six years. We believe that when the experience from the current and prior studies is combined, it provides a more reasonable representation of potential future merit and promotion salary increases over the long term.

   The following table shows the General members' actual average merit and promotion increases by years of service over the three-year period from January 1, 2018 through December 31, 2020 along with the actual average increases based on combining the current three-year period with the three-year period from the prior experience study. The current and proposed assumptions are also shown. The actual increases were reduced by the actual average inflation plus "across the board" increase (i.e. wage inflation, estimated as the increase in average salaries) for each year during the experience period (4.46% on average for the most recent three-year period).

General
Rate (%)

Years of Service	Current Assumption	Actual Average Increase from Current Study (Last 3 Years)	Actual Average Increase from Current and Prior Studies (Last 6 Years)	Proposed Assumption
Less than 1	12.00	4.36	9.45	11.00
1 – 2	7.00	3.85	4.76	6.50
2 – 3	5.25	2.79	3.49	4.75
3 – 4	3.75	1.80	2.35	3.50
4 – 5	2.75	1.56	1.37	2.50
5 – 6	2.25	1.09	1.14	2.00
6 – 7	1.75	1.52	1.36	1.75
7 – 8	1.50	1.63	1.63	1.65
8 – 9	1.40	1.59	0.95	1.45
9 – 10	1.30	1.72	1.14	1.35
10 – 11	1.20	1.39	0.92	1.30
11 – 12	1.10	0.43	0.22	1.10
12 – 13	1.00	0.25	0.31	1.00
13 – 14	0.90	0.28	0.08	0.90
14 – 15	0.80	1.41	0.55	0.80
15 – 16	0.75	0.73	0.14	0.75
16 – 17	0.70	0.27	-0.26	0.70
17 – 18	0.65	0.41	0.12	0.65
18 – 19	0.60	0.31	0.03	0.60
19 – 20	0.55	0.05	-0.20	0.55
20 & Over	0.50	0.27	-0.10	0.50

Based on this experience, overall we recommend decreasing the merit and promotion salary increase assumptions for General members during the earlier years of service. The overall salary increase assumptions will decrease for General members after taking into account the lower inflation component of the salary increase assumption.

Chart 1 that follows later in the section compares the actual merit and promotion increase experience with the current and proposed assumptions for General members. Also shown is the actual merit and promotion increases based on an average of both the current and previous three-year experience periods.

The following table shows the Safety members' actual average merit and promotion increases by years of service over the three-year period from January 1, 2018 through December 31, 2020 along with the actual average increases based on combining the current three-year period with the three-year period from the prior experience study. The current and proposed assumptions are also shown. The actual increases were reduced by the actual average inflation plus "across the board" increase (i.e. wage inflation, estimated

as the increase in average salaries) for each year during the experience period (4.96% on average for the most recent three-year period).

Safety
Rate (%)

Years of Service	Current Assumption	Actual Average Increase from Current Study (Last 3 Years)	Actual Average Increase from Current and Prior Studies (Last 6 Years)	Proposed Assumption
Less than 1	13.00	9.74	13.76	12.00
1 – 2	8.00	9.30	9.23	8.50
2 – 3	5.75	4.83	5.00	5.50
3 – 4	4.75	4.92	4.99	5.00
4 – 5	2.75	4.35	3.80	4.00
5 – 6	2.00	4.08	3.20	3.00
6 – 7	1.75	2.79	2.39	2.25
7 – 8	1.50	2.19	1.60	1.75
8 – 9	1.40	1.52	1.29	1.50
9 – 10	1.30	2.39	1.66	1.45
10 – 11	1.25	1.41	1.15	1.40
11 – 12	1.20	1.86	1.45	1.35
12 – 13	1.15	1.43	1.21	1.30
13 – 14	1.10	1.78	1.31	1.25
14 – 15	1.05	2.43	2.19	1.25
15 – 16	1.00	1.89	1.81	1.25
16 – 17	1.00	1.75	1.30	1.25
17 – 18	1.00	1.33	1.04	1.25
18 – 19	1.00	1.29	1.50	1.25
19 – 20	1.00	1.85	1.70	1.25
20 & Over	1.00	1.12	1.29	1.00

Based on this experience, we recommend increasing the merit and promotion salary increase assumptions for Safety members. The overall salary increase assumptions will decrease slightly for Safety members after taking into account the lower inflation component of the salary increase assumption.

Chart 2 compares the actual merit and promotion increase experience with the current and proposed assumptions for Safety members. Also shown is the actual merit and promotion increases based on an average of both the current and previous three-year experience periods.

PEPRA member's salary are subject to the PEPRA compensation limits under Section 7522.10 that are generally adjusted using inflation. There may be a need to review the salary increase assumptions for the PEPRA members separately in future experience studies, especially if the proportion of those members reaching the PEPRA salary caps continue to increase.

Active Member Payroll

Projected active member payrolls are used to develop the UAAL contribution rate. Future values are determined as a product of the number of employees in the workforce and the average pay for all employees. The average pay for all employees increases only by inflation and real "across the board" pay increases. The merit and promotion increases are not an influence, because this average pay is not specific to an individual.

Under the Board's current practice, the UAAL contribution rate is developed by assuming that the total payroll for all active members will increase annually over the amortization periods at the same assumed rates of inflation plus real "across the board" salary increase assumptions as are used to project the members' future benefits.

Consistent with the combined recommended inflation and real "across the board" salary increase assumptions, we recommend reducing the payroll growth assumption from 3.25% to 3.00% annually.

Chart 1: Merit and Promotion Salary Increase Rates
General Members

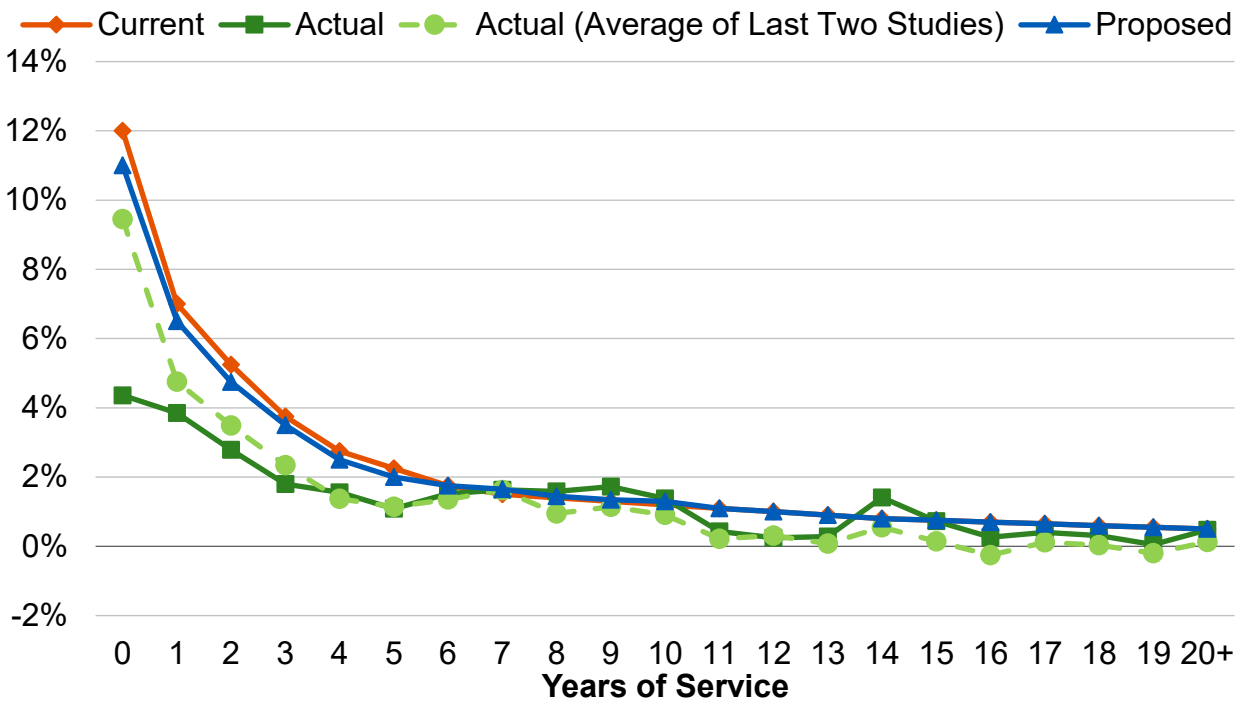
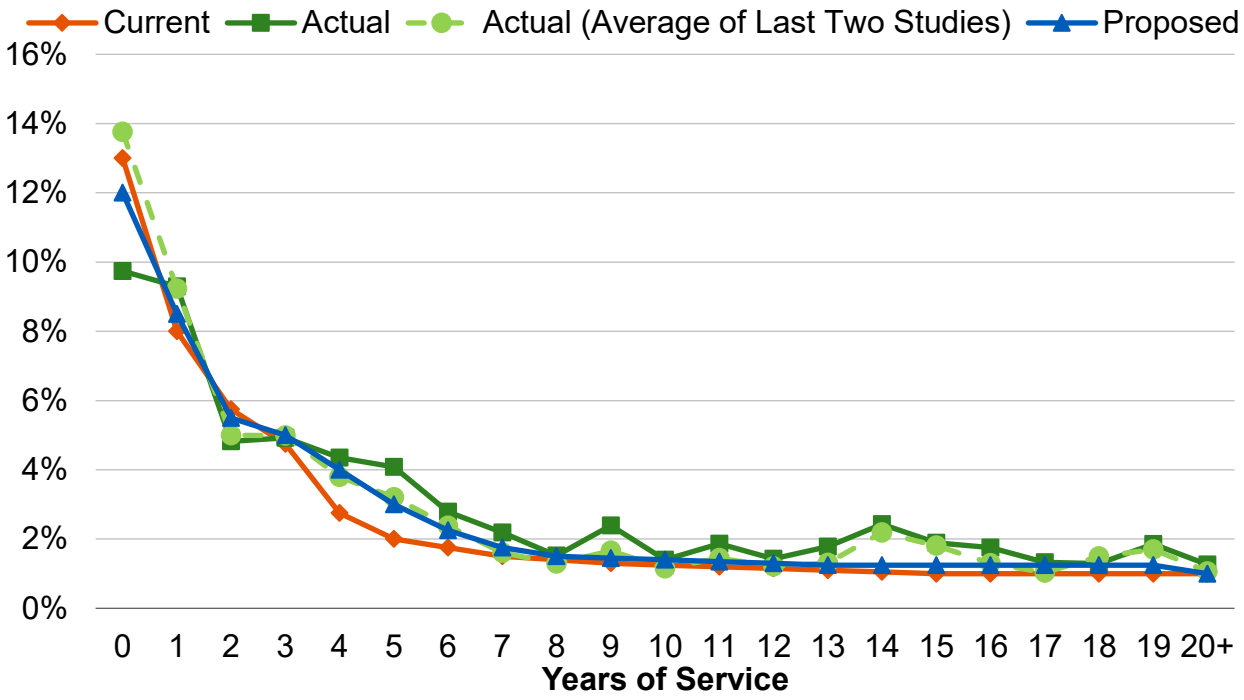


Chart 2: Merit and Promotion Salary Increase Rates
Safety Members



D. Administrative Expenses

Like benefit payments made to members, expenses incurred in connection with the plan's operation are paid from CCCERA's assets. These expenses include fees for administrative, legal, accounting, and actuarial services, as well as routine costs for printing, mailings, computer-related activities, and other functions carried out by the plan. They do not include investment-related expenses.

In order to reflect future administrative expenses in the contribution rates, a load is calculated based on actual administrative expenses as a percentage of payroll. It is allocated to both the employer and the member based on normal cost (before expenses) for the employer and the member. This assumption changes each year based on actual administrative expenses and payroll.

The following table shows actual administrative expenses as a percent of payroll.

Administrative Expenses as a Percentage of Payroll

Year Ending December 31,	Actual Payroll for Year	Actual Administrative Expenses	Total %
2018	$850,929,106	$9,337,053	1.10%
2019	$892,379,335	$10,200,473	1.14%
2020	$943,422,017	$10,749,625	1.14%
Average	**$895,576,819**	**$10,095,717**	**1.13%**

The experience shows that actual administrative expenses when expressed as a percent of payroll have been stable during the three-year period shown above.

We recommend maintaining the practice of setting the administrative expense assumption to be equal to the actual administrative expenses for the prior year as a percent of payroll for the prior year (i.e., 1.14% based on the December 31, 2020 valuation).

There will still be actuarial gains and losses associated with this assumption; however, the assumption will be adjusted to the most recent experience in each valuation.

4. Demographic Assumptions

A. Retirement Rates

The age at which a member retires from service (i.e., who did not retire on a disability pension) will affect both the amount of the benefits that will be paid to that member as well as the period over which funding must take place.

The following table shows the observed service retirement rates for General Tier 1 Enhanced members based on the actual experience over the past six years, separately for those with less than 30 years of service and more than 30 years of service. The actual service retirement rates were determined by comparing those members who actually retired from service to those eligible to retire from service. This same methodology is followed throughout this report and was described in Section 2. Also shown are the current assumed rates and the rates we propose.

General Tier 1 Enhanced

Rate of Retirement (%)

Age	Less than 30 Years of Service			30 or More Years of Service		
	Current Rate	Actual Rate	Proposed Rate	Current Rate	Actual Rate	Proposed Rate
50	5.00	3.70	4.00	9.00	0.00	10.00
51	4.00	0.00	4.00	7.20	25.00	10.00
52	4.00	5.36	4.00	7.20	12.50	10.00
53	4.00	1.75	4.00	7.20	0.00	10.00
54	12.00	5.66	10.00	21.60	6.25	16.00
55	15.00	14.58	15.00	27.00	28.57	24.00
56	17.00	13.25	15.00	30.60	0.00	24.00
57	17.00	9.33	15.00	30.60	21.05	24.00
58	17.00	6.94	15.00	30.60	4.76	22.00
59	22.00	14.06	18.00	26.40	18.18	22.00
60	25.00	11.11	20.00	30.00	11.76	20.00
61	30.00	16.07	20.00	36.00	6.67	20.00
62	30.00	24.07	25.00	36.00	17.65	30.00
63	25.00	23.81	25.00	30.00	25.00	30.00
64	25.00	18.75	25.00	30.00	0.00	30.00
65	35.00	30.43	35.00	35.00	25.00	35.00
66	40.00	42.86	40.00	40.00	0.00	40.00
67	40.00	28.57	40.00	40.00	16.67	40.00
68	40.00	44.44	40.00	40.00	0.00	40.00
69	40.00	28.57	40.00	40.00	0.00	40.00
70	35.00	50.00	40.00	35.00	N/A	40.00
71	35.00	0.00	35.00	35.00	N/A	35.00
72	35.00	0.00	35.00	35.00	N/A	35.00
73	35.00	50.00	35.00	35.00	N/A	35.00
74	35.00	N/A	35.00	35.00	N/A	35.00
75 & Over	100.00	33.33	100.00	100.00	N/A	100.00

Based on this experience, we recommend decreasing the retirement rate assumption at certain ages while increasing the retirement rate assumption at other ages. Overall, the proposed rates represent a decrease from the current rates for General Tier 1 Enhanced members.

Chart 3 that follows later in this section compares the actual retirement experience with the current and proposed assumptions for General Tier 1 Enhanced members with less than 30 years of service.

Chart 4 compares the actual retirement experience with the current and proposed assumptions for General Tier 1 Enhanced members with 30 or more years of service.

The following table shows the observed service retirement rates for General Tier 3 Enhanced members based on the actual experience over the past six years, separately for those with less than 30 years of service and more than 30 years of service. Also shown are the current assumed rates and the rates we propose.

General Tier 3 Enhanced

Rate of Retirement (%)

	Less than 30 Years of Service			30 or More Years of Service		
Age	Current Rate	Actual Rate	Proposed Rate	Current Rate	Actual Rate	Proposed Rate
49	0.00	N/A	0.00	0.00	40.00	25.00
50	4.00	2.93	4.00	7.20	22.22	10.00
51	3.00	2.35	3.00	5.40	0.00	5.00
52	3.00	2.87	3.00	5.40	3.70	5.00
53	4.00	2.18	4.00	7.20	4.65	5.00
54	6.00	4.32	6.00	10.80	10.53	11.00
55	8.00	8.31	8.00	14.40	14.93	15.00
56	8.00	6.05	8.00	9.60	9.86	10.00
57	9.00	5.08	8.00	10.80	8.82	10.00
58	10.00	6.83	9.00	12.00	18.06	15.00
59	12.00	8.36	10.00	14.40	14.71	15.00
60	13.00	8.61	12.00	15.60	14.52	15.00
61	18.00	11.95	16.00	21.60	16.67	20.00
62	22.00	19.09	20.00	26.40	21.31	25.00
63	22.00	16.23	20.00	26.40	16.00	25.00
64	25.00	20.60	25.00	30.00	16.67	28.00
65	32.00	24.03	30.00	32.00	36.00	32.00
66	32.00	34.20	32.00	32.00	16.67	32.00
67	30.00	30.12	30.00	30.00	50.00	30.00
68	30.00	29.01	30.00	30.00	0.00	30.00
69	30.00	26.17	30.00	30.00	60.00	30.00
70	35.00	33.98	35.00	35.00	0.00	35.00
71	35.00	17.91	35.00	35.00	0.00	35.00
72	35.00	22.64	35.00	35.00	0.00	35.00
73	35.00	15.63	35.00	35.00	0.00	35.00
74	35.00	19.05	35.00	35.00	0.00	35.00
75 & Over	100.00	16.67	100.00	100.00	50.00	100.00

Based on this experience, we recommend decreasing the retirement rate assumption at certain ages while increasing the retirement rate assumption at other ages. Overall, the proposed rates represent a decrease from the current rates for General Tier 3 Enhanced members with less than 30 years of service, and an increase from current rates for General Tier 3 Enhanced members with 30 or more years of service.

Chart 5 compares the actual retirement experience with the current and proposed assumptions for General Tier 3 Enhanced members with less than 30 years of service.

Chart 6 compares the actual retirement experience with the current and proposed assumptions for General Tier 3 Enhanced members with 30 or more years of service.

The following table shows the observed service retirement rates for General Tier 1 Non-Enhanced members based on the actual experience over the past six years. Due to the limited actual experience for General Tier 1 Non-Enhanced, we have continued to structure this assumption on a function of age only. Also shown are the current assumed rates and the rates we propose.

General Tier 1 Non-Enhanced

Rate of Retirement (%)

Age	Current Rate	Actual Rate	Proposed Rate
50	3.00	0.00	3.00
51	3.00	0.00	3.00
52	3.00	N/A	3.00
53	3.00	N/A	3.00
54	3.00	N/A	3.00
55	10.00	N/A	10.00
56	10.00	N/A	10.00
57	10.00	N/A	10.00
58	10.00	0.00	10.00
59	10.00	50.00	10.00
60	25.00	0.00	25.00
61	15.00	N/A	15.00
62	40.00	N/A	40.00
63	35.00	N/A	35.00
64	30.00	N/A	30.00
65	40.00	100.00	40.00
66	35.00	N/A	35.00
67	35.00	N/A	35.00
68	35.00	N/A	35.00
69	35.00	N/A	35.00
70	40.00	N/A	40.00
71	40.00	N/A	40.00
72	40.00	N/A	40.00
73	50.00	N/A	50.00
74	50.00	N/A	50.00
75 & Over	100.00	N/A	100.00

Due to the limited actual experience, we recommend maintaining the retirement rate assumption at all ages for General Tier 1 Non-Enhanced members.

Chart 7 compares the actual retirement experience with the current and proposed assumptions for General Tier 1 Non-Enhanced members.

The following table shows the observed service retirement rates for General PEPRA Tier 4 and Tier 5 members based on the actual experience over the past six years. Due to the limited actual experience for the General PEPRA Tiers, we have continued to structure this assumption on a function of age only. Also shown are the current assumed rates and the rates we propose.

General PEPRA Tier 4 and Tier 5

Rate of Retirement (%)

Age	Current Rate	Actual Rate	Proposed Rate
50	0.00	N/A	0.00
51	0.00	N/A	0.00
52	2.00	0.00	2.00
53	3.00	4.55	3.00
54	3.00	3.85	3.00
55	5.00	0.00	4.00
56	5.00	0.00	5.00
57	6.00	9.68	6.00
58	6.00	4.35	6.00
59	8.00	0.00	8.00
60	8.00	4.76	8.00
61	12.00	18.18	12.00
62	18.00	4.00	15.00
63	18.00	11.11	17.00
64	20.00	22.22	20.00
65	25.00	26.32	25.00
66	25.00	21.05	25.00
67	25.00	22.22	25.00
68	25.00	0.00	25.00
69	25.00	50.00	25.00
70	40.00	0.00	35.00
71	40.00	33.33	35.00
72	40.00	12.50	35.00
73	40.00	0.00	35.00
74	40.00	0.00	35.00
75 & Over	100.00	11.11	100.00

Based on this experience, we recommend decreasing the retirement rate assumption at certain ages while maintaining the retirement rate assumption at other ages. Overall, the

proposed rates represent a decrease from the current rates for General PEPRA Tier 4 and Tier 5 members.

Chart 8 compares the actual retirement experience with the current and proposed assumptions for General PEPRA Tier 4 and Tier 5 members.

The following table shows the observed service retirement rates for Safety Tier A Enhanced members based on the actual experience over the past six years, separately for those with less than 30 years of service and more than 30 years of service. Also shown are the current assumed rates and the rates we propose.

Safety Tier A Enhanced

Rate of Retirement (%)

	Less than 30 Years of Service			30 or More Years of Service		
Age	Current Rate	Actual Rate	Proposed Rate	Current Rate	Actual Rate	Proposed Rate
45	7.00	5.77	7.00	8.75	N/A	7.00
46	3.00	5.88	5.00	3.75	N/A	5.00
47	10.00	3.96	7.00	12.50	0.00	7.00
48	10.00	6.87	10.00	12.50	0.00	30.00
49	25.00	18.01	22.00	31.25	50.00	30.00
50	25.00	18.28	22.00	31.25	100.00	30.00
51	25.00	18.09	22.00	31.25	0.00	22.00
52	18.00	12.50	16.00	22.50	0.00	20.00
53	18.00	12.73	16.00	22.50	33.33	22.00
54	18.00	11.11	16.00	22.50	25.00	24.00
55	20.00	1.54	16.00	30.00	33.33	30.00
56	20.00	13.79	18.00	30.00	33.33	30.00
57	22.00	9.09	18.00	33.00	0.00	30.00
58	22.00	10.26	20.00	33.00	50.00	35.00
59	22.00	12.50	20.00	33.00	50.00	35.00
60	25.00	4.55	20.00	37.50	0.00	35.00
61	25.00	16.00	20.00	37.50	66.67	35.00
62	25.00	5.56	20.00	37.50	0.00	35.00
63	30.00	11.76	25.00	45.00	33.33	35.00
64	40.00	23.08	35.00	60.00	0.00	35.00
65 & Over	100.00	11.54	100.00	100.00	100.00	100.00

Based on this experience, we recommend decreasing the retirement rate assumption at certain ages while increasing the retirement rate assumption at other ages. Overall, the proposed rates represent a decrease from the current rates for all Safety Tier A Enhanced members.

Chart 9 compares the actual retirement experience with the current and proposed assumptions for Safety Tier A Enhanced members with less than 30 years of service.

Chart 10 compares the actual retirement experience with the current and proposed assumptions for Safety Tier A Enhanced members with 30 or more years of service.

The following table shows the observed service retirement rates for Safety Tier C members based on the actual experience over the past six years. Due to the limited actual experience for Safety Tier C, we have continued to structure this assumption on a function of age only. Also shown are the current assumed rates and the rates we propose.

Safety Tier C

Rate of Retirement (%)

Age	Current Rate	Actual Rate	Proposed Rate
45	2.00	0.00	2.00
46	1.00	0.00	1.00
47	4.00	0.00	4.00
48	4.00	0.00	4.00
49	12.00	0.00	12.00
50	18.00	25.00	20.00
51	18.00	20.00	18.00
52	15.00	0.00	15.00
53	15.00	0.00	15.00
54	15.00	100.00	18.00
55	18.00	N/A	18.00
56	15.00	N/A	15.00
57	15.00	0.00	15.00
58	25.00	N/A	25.00
59	25.00	N/A	25.00
60	25.00	N/A	25.00
61	25.00	100.00	25.00
62	25.00	N/A	25.00
63	30.00	N/A	30.00
64	35.00	N/A	35.00
65 & Over	100.00	N/A	100.00

Based on this experience, we recommend increasing the retirement rate assumption at certain ages while maintaining the retirement rate assumption at other ages. Overall, the proposed rates represent an increase from the current rates for Safety Tier C members.

Chart 11 compares the actual retirement experience with the current and proposed assumptions for Safety Tier C members.

The following table shows the observed service retirement rates for Safety Tier A Non-Enhanced and PEPRA Tier D and Tier E members based on the actual experience over the past six years. Due to the limited actual experience for these Safety Tiers, we have continued to structure this assumption on a function of age only. Also shown are the current assumed rates and the rates we propose.

Safety Tier A Non-Enhanced and PEPRA Tier D and Tier E

Rate of Retirement (%)

Age	Current Rate	Actual Rate	Proposed Rate
45	0.00	N/A	0.00
46	0.00	N/A	0.00
47	0.00	0.00	0.00
48	0.00	0.00	0.00
49	0.00	0.00	0.00
50	5.00	0.00	5.00
51	4.00	0.00	4.00
52	4.00	0.00	4.00
53	5.00	0.00	5.00
54	6.00	0.00	6.00
55	10.00	0.00	15.00
56	10.00	33.33	15.00
57	18.00	0.00	15.00
58	18.00	0.00	15.00
59	18.00	0.00	20.00
60	18.00	33.33	20.00
61	20.00	25.00	20.00
62	20.00	0.00	20.00
63	20.00	0.00	20.00
64	25.00	N/A	25.00
65 & Over	100.00	N/A	100.00

Based on this experience, we recommend minor changes to the retirement rate assumption at certain ages. Overall, the proposed rates represent an increase from the current rates for Safety Tier A Non-Enhanced and PEPRA Tier D and Tier E members.

Chart 12 compares the actual retirement experience with the current and proposed assumptions for Safety Tier A Non-Enhanced and PEPRA Tier D and Tier E members.

Deferred Vested Members

Under the current assumptions, deferred vested General members are assumed to retire at age 59 and Safety members were assumed to retire at age 53 for those with reciprocity and age 50 for those without reciprocity.

The following table shows the observed deferred vested retirement age for General members based on the actual experience over the past three years, separately for those who went on to work at a reciprocal retirement system and those that did not. Also shown are the current assumed retirement ages and the retirement ages we propose.

General Members' Deferred Vested Retirement Age

	Reciprocal Members	Non-Reciprocal Members
Current Assumption	59.0	59.0
Actual Average Age	60.5	59.5
Proposed Assumption	**60.0**	**60.0**

Based on this experience, we recommend increasing the deferred vested retirement age assumption for all General members from age 59 to 60.

The following table shows the observed deferred vested retirement age for Safety members based on the actual experience over the past three years, separately for those who went on to work at a reciprocal retirement system and those that did not. Also shown are the current assumed retirement ages and the retirement ages we propose.

Safety Members' Deferred Vested Retirement Age

	Reciprocal Members	Non-Reciprocal Members
Current Assumption	53.0	50.0
Actual Average Age	52.3	51.8
Proposed Assumption	**53.0**	**51.0**

Based on this experience, we recommend maintaining the deferred vested retirement age assumption for Safety reciprocal members at age 53 and increasing the deferred vested retirement age assumption for Safety non-reciprocal members from age 50 to 51.

Reciprocity

Under current assumptions, it is assumed that 40% of General and 70% of Safety future deferred vested members will be covered under a reciprocal retirement system. As of December 31, 2020, about 41% of the total General deferred vested members and 72% of the total Safety deferred vested members went on to be covered by a reciprocal retirement system.

Based on this experience, we recommend maintaining the future reciprocal assumption for General members at 40% and maintaining the future reciprocal assumption for Safety members at 70%.

It is assumed that all current and future members covered under a reciprocal retirement system will receive annual salary increases from termination until their date of retirement. Under current assumptions, these annual salary increases are 3.75% for General members and 4.25% for Safety members. These salary increases are based on the current ultimate merit and promotion salary increase assumptions, together with the current inflation and real "across the board" salary increase assumptions.

Based on the recommended ultimate 0.50% and 1.00% merit and promotion salary increase assumptions, for General and Safety members respectively, together with the recommended 2.50% inflation assumption and 0.50% real "across the board" salary increase assumption, we recommend reducing the reciprocal salary increase assumption for General members from 3.75% to 3.50% and reducing the reciprocal salary increase assumption for Safety members from 4.25% to 4.00%.

Survivor Continuance Under the Unmodified Option

Under current assumptions, it is assumed that 65% of all active and inactive male members and 50% of all active and inactive female members would be married or have an eligible domestic partner at the time of their retirement or pre-retirement death. We reviewed experience for new retirees during the three-year period and determined the actual percentage of these new retirees that had an eligible spouse or eligible domestic partner at the time of retirement. The results of that analysis are shown below.

New Retirees – Actual Percent with Eligible Spouse or Domestic Partner

Year Ending December 31	Male	Female
2018	53%	53%
2019	66%	53%
2020	69%	50%
Total	**63%**	**52%**

Based on this experience, we recommend maintaining the percent married assumption for male and female members at 65% and 50%, respectively.

Since the present value of the survivor's automatic continuance benefit is dependent on the survivor's age and sex, we must also have assumptions for the age and sex of the survivor. Based on the experience for members who retired during the current three-year period (results shown in the table below) and studies done for other retirement systems, **we recommend the following:**

1. Since most of the actual survivors are of the opposite sex, even with the inclusion of domestic partners, **we will continue to assume that all active and inactive members have a survivor of the opposite sex.**
2. **Based on the below experience, we recommend maintaining the spouse age difference assumption that male retirees are three years older than their spouses and maintaining the spouse age difference assumption that female retirees are two years younger than their spouses.** These assumptions will continue to be monitored in future experience studies.

Member's Age as Compared to Spouse's Age

	Male Retiree	Female Retiree
Current Assumption	3 years older	2 years younger
Actual Experience	2.8 years older	2.4 years younger
Proposed Assumption	**3 years older**	**2 years younger**

Chart 3: Retirement Rates
General Tier 1 Enhanced Members with less than 30 Years of Service

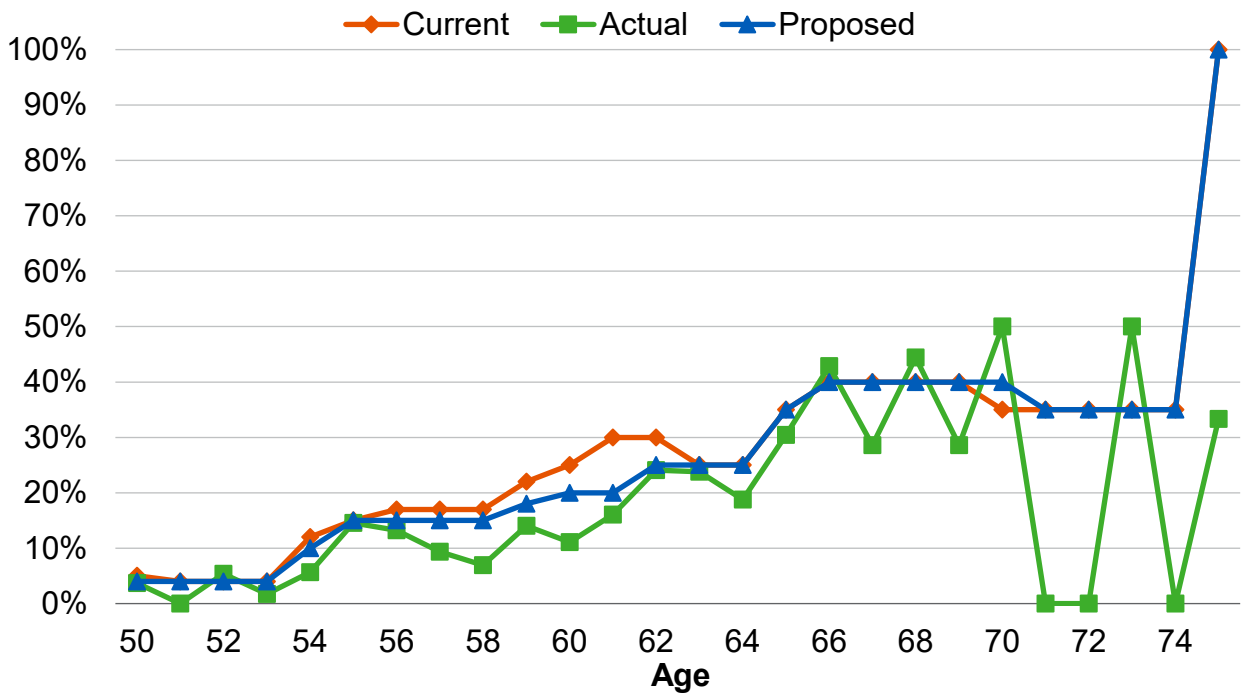


Chart 4: Retirement Rates
General Tier 1 Enhanced Members with 30 or more Years of Service

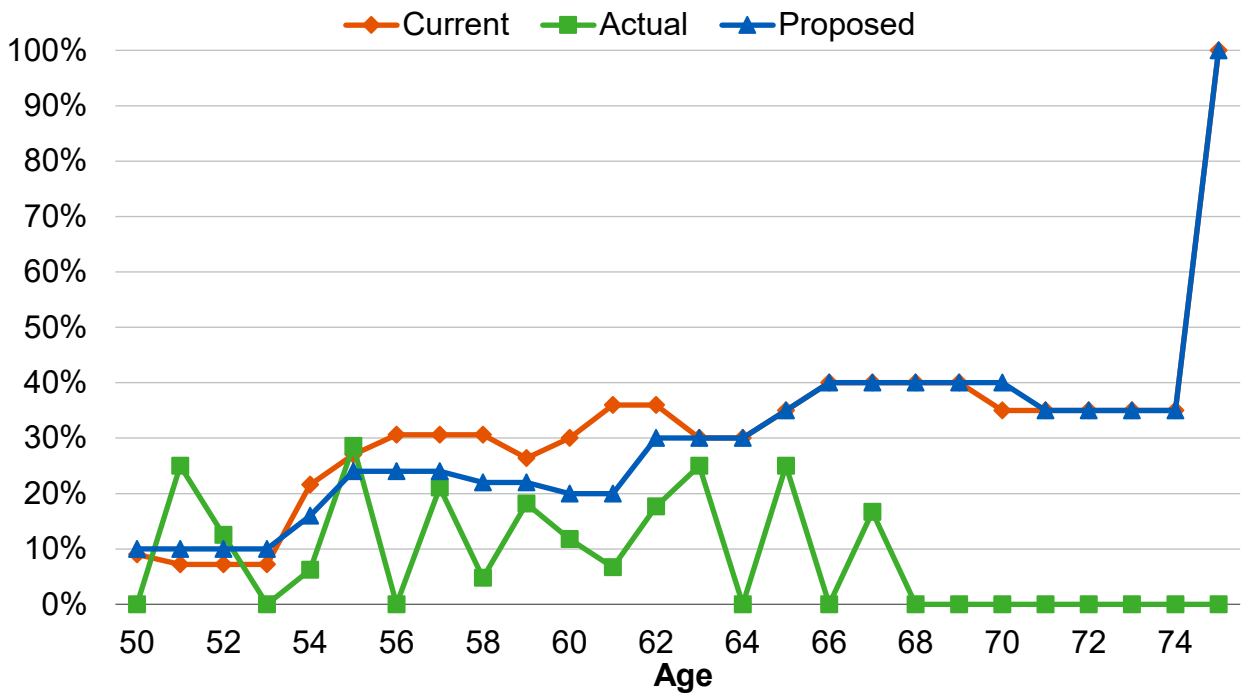


Chart 5: Retirement Rates
General Tier 3 Enhanced Members with less than 30 Years of Service

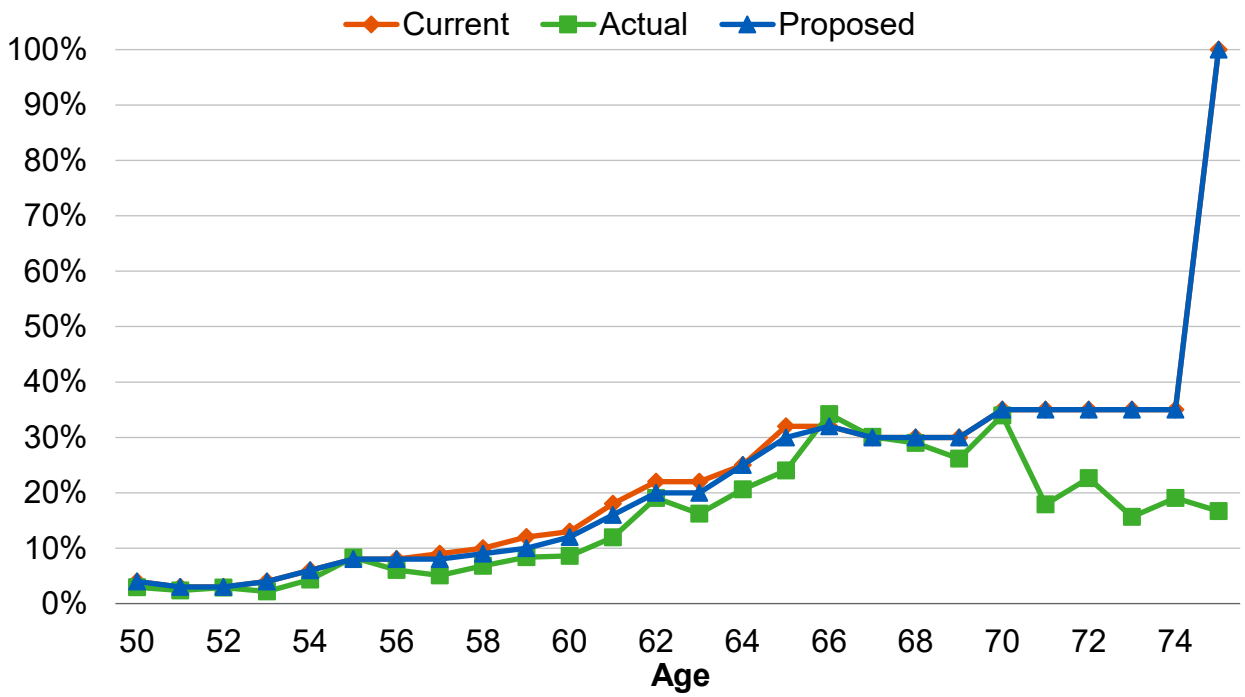


Chart 6: Retirement Rates
General Tier 3 Enhanced Members with 30 or more Years of Service

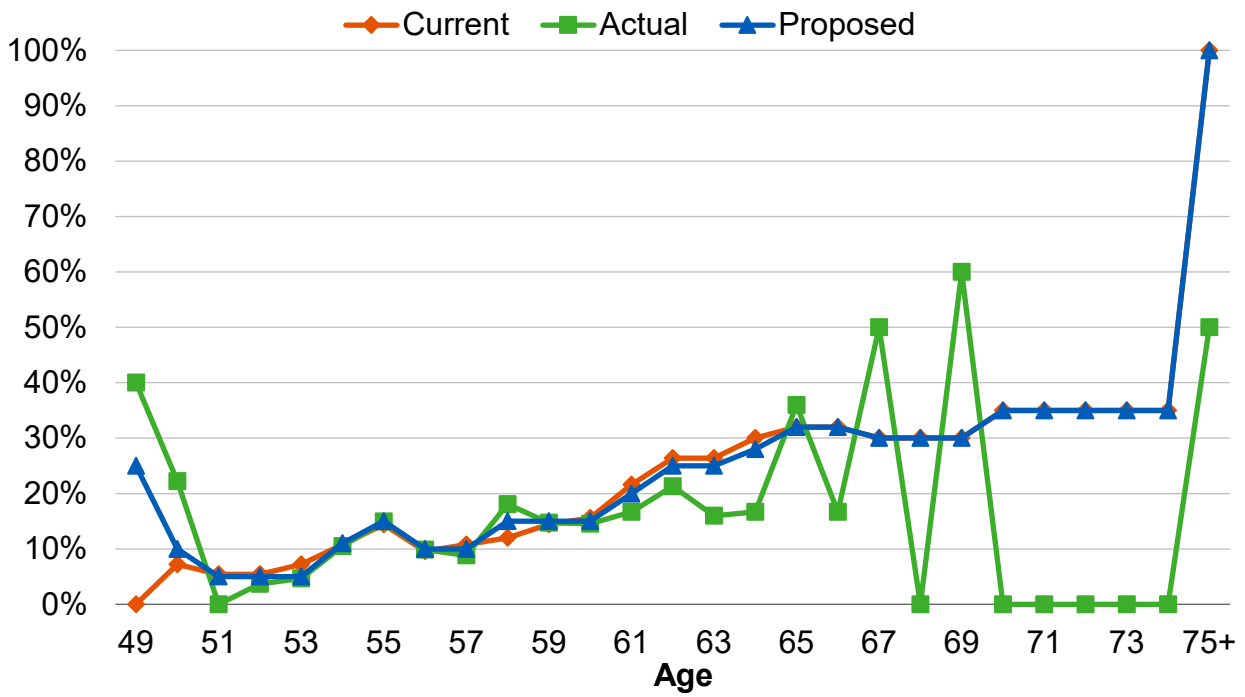


Chart 7: Retirement Rates
General Tier 1 Non-Enhanced Members

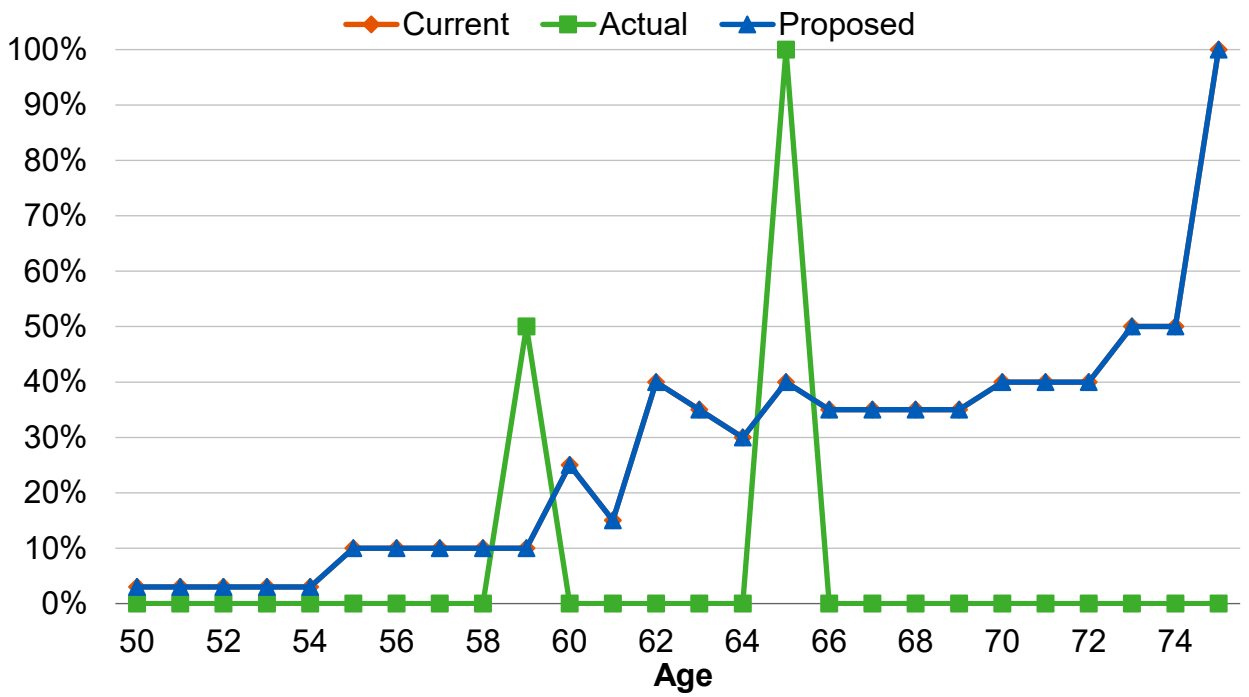


Chart 8: Retirement Rates
General PEPRA Tier 4 and Tier 5 Members

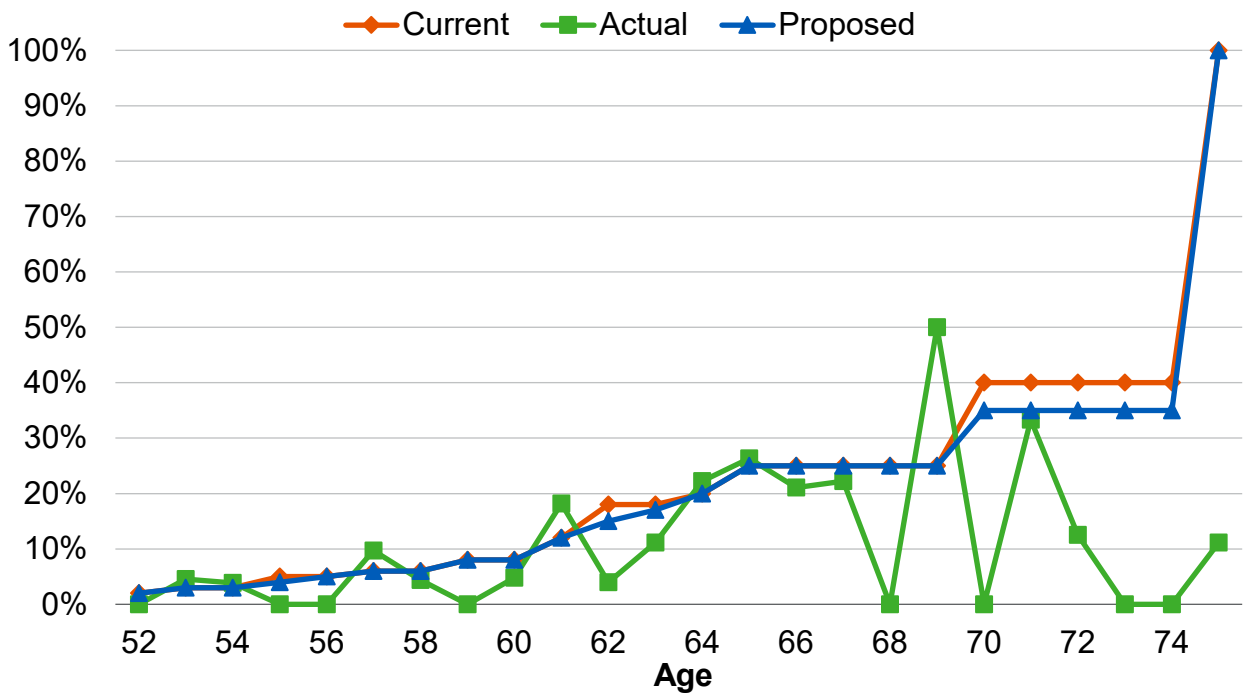


Chart 9: Retirement Rates
Safety Tier A Enhanced Members with less than 30 Years of Service

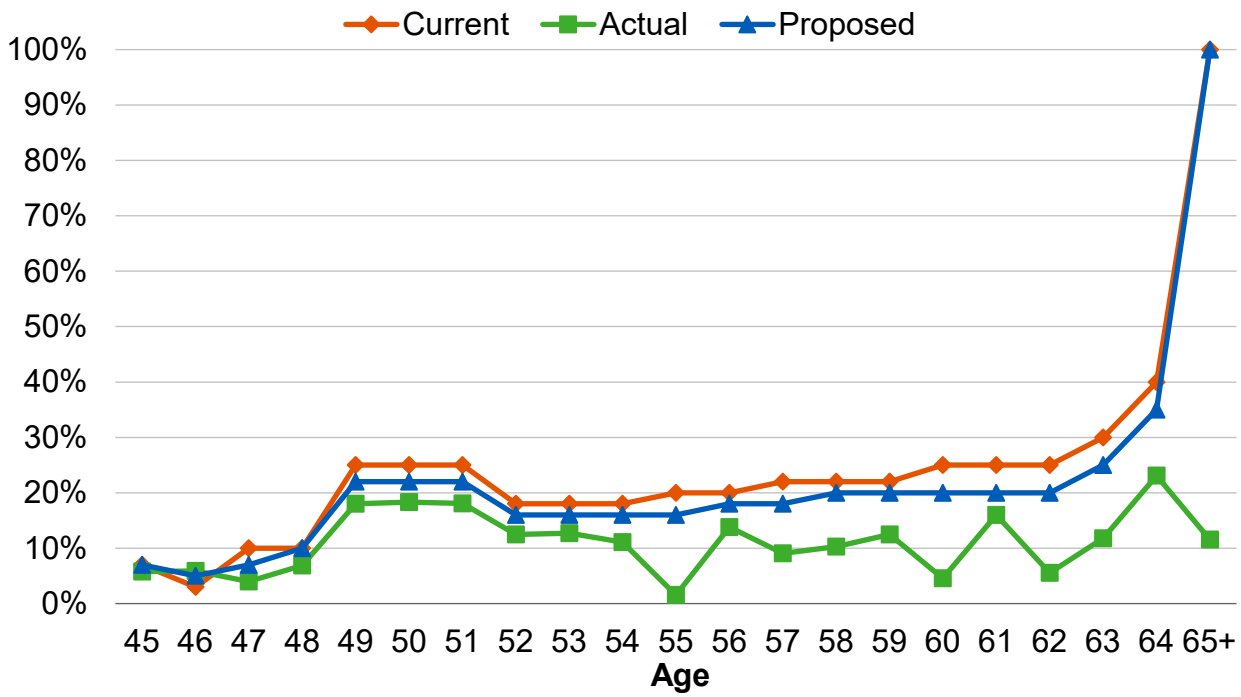


Chart 10: Retirement Rates
Safety Tier A Enhanced Members with 30 or more Years of Service

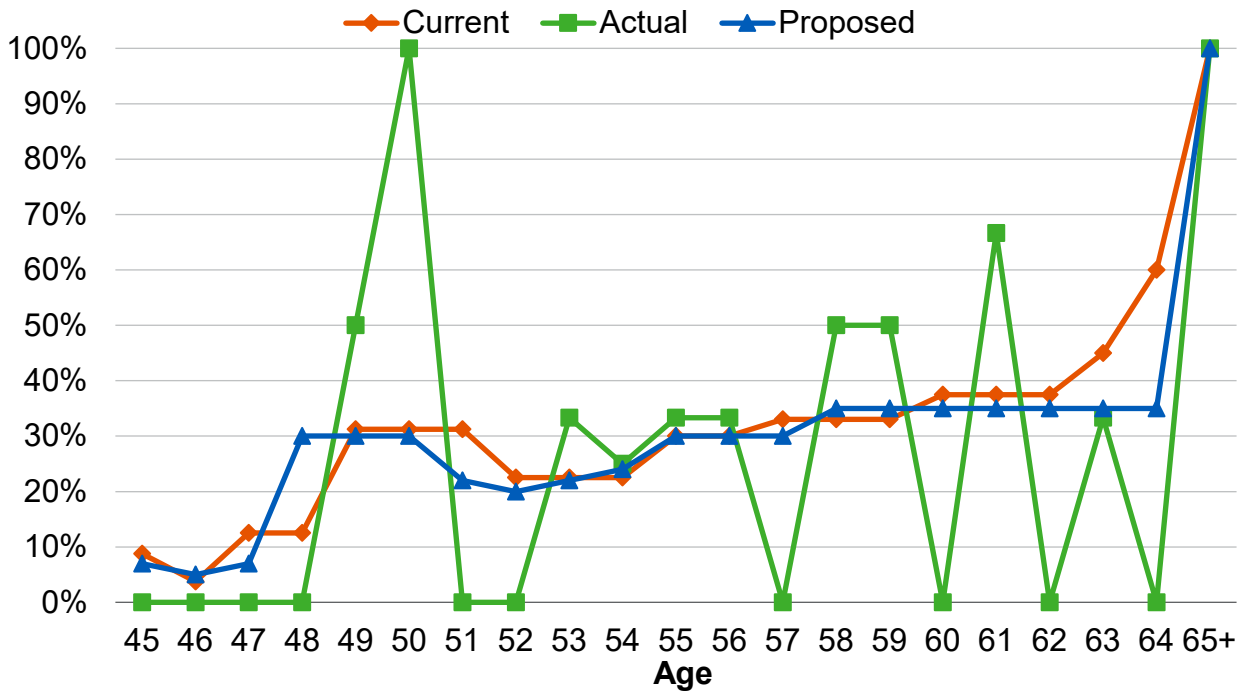


Chart 11: Retirement Rates
Safety Tier C Members

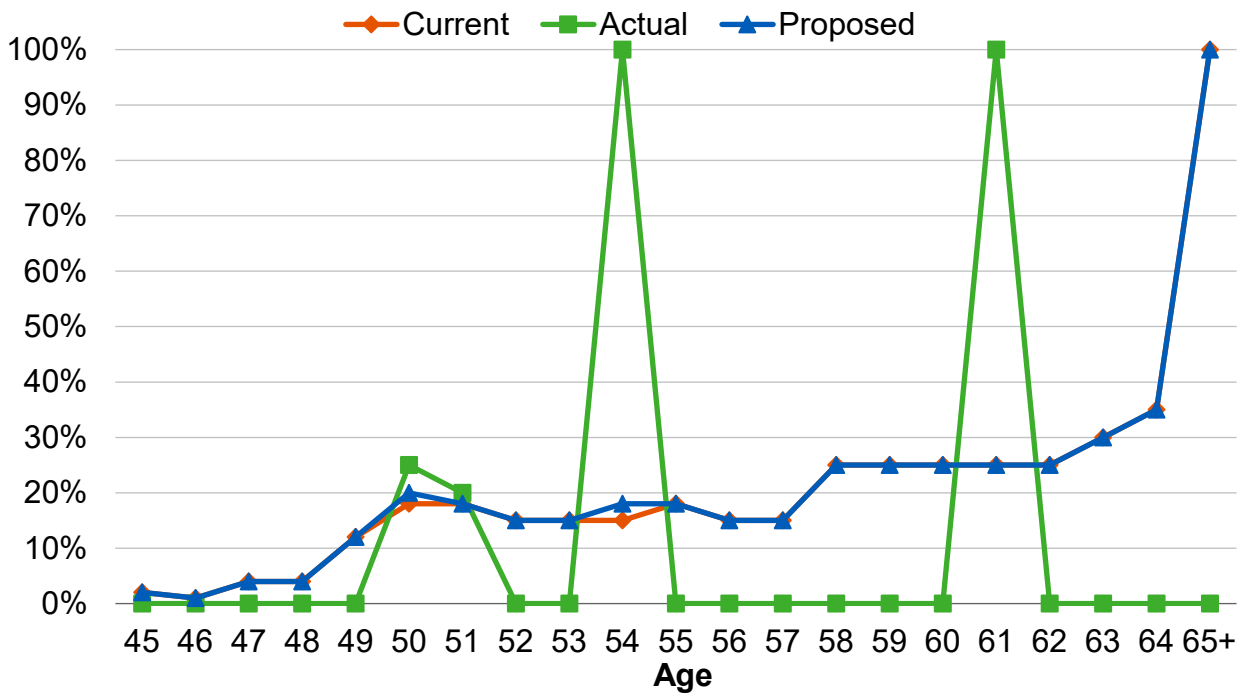
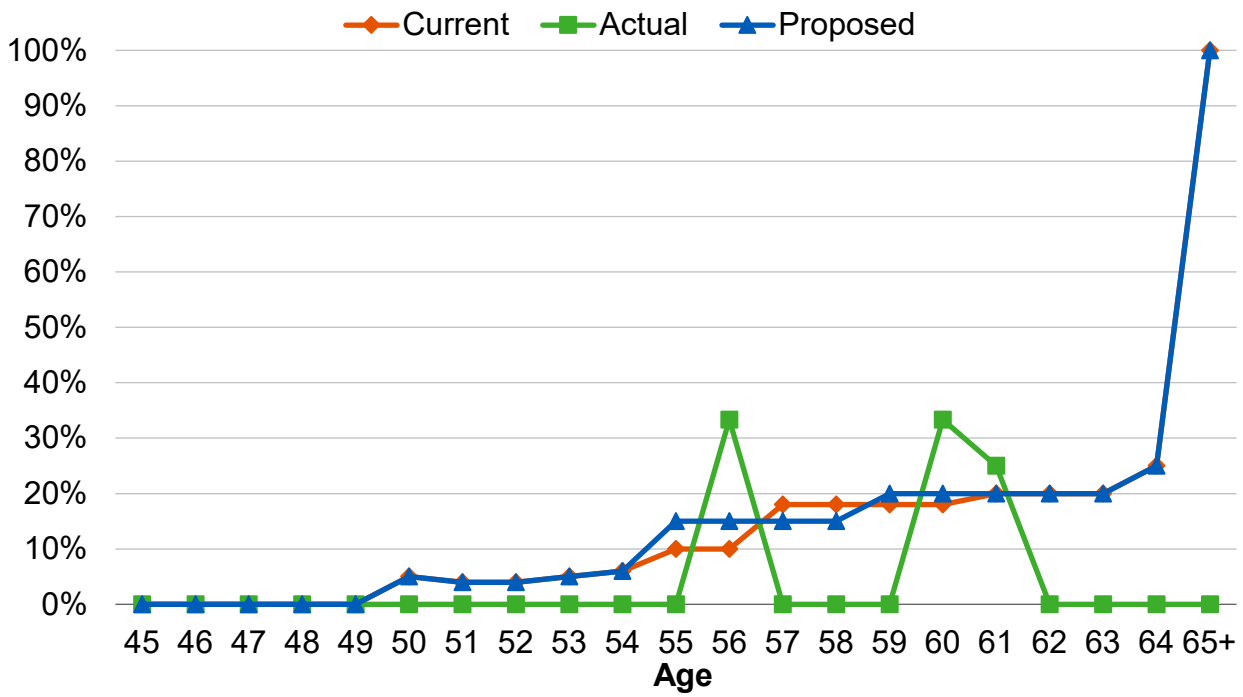


Chart 12: Retirement Rates
Safety Tier A Non-Enhanced and PEPRA Tier D and Tier E Members



B. Mortality Rates - Healthy

The “healthy” mortality rates project the life expectancy of a member who retires from service (i.e., who did not retire on a disability pension). Also, the “healthy” pre-retirement mortality rates project what proportion of members will die before retirement. For General members, the table currently being used for post-service retirement mortality rates is the Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2018. For Safety members, the table currently being used for post-service retirement mortality rates is the Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), increased by 5% for males and unadjusted for females, projected generationally with the two-dimensional mortality improvement scale MP-2018. For all beneficiaries, the table currently being used is the Pub-2010 Contingent Survivor Amount-Weighted Above-Median Mortality Table (separate tables for males and females), increased by 5% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2018.

The Public Retirement Plans Mortality tables (Pub-2010) was published by the Retirement Plans Experience Committee (RPEC) of the SOA in 2019. For the first time, the published mortality tables are based exclusively on public sector pension plan experience in the United States. Within the Pub-2010 family of mortality tables, there are separate tables by job categories of General, Safety and Teachers. Included with the mortality tables is the analysis prepared by RPEC that continues to observe that benefit amount for healthy retirees and salary for employees are the most significant predictors of mortality differences within the job categories. Therefore, Pub-2010 includes mortality rates developed for annuitants on a “benefit” weighted basis, with higher credibility assigned to experience from annuitants receiving larger benefits. We continue to recommend using the "amount weighted" above-median version of the Pub-2010 mortality tables (adjusted for CCCERA experience as discussed herein).

We also continue to recommend that the mortality improvement scale be applied generationally where each future year has its own mortality table that reflects the forecasted improvements, using the published improvement scales. The “generational” approach is now the established practice within the actuarial profession.

A generational mortality table provides dynamic projections of mortality experience for each cohort of retirees. For example, the mortality rate for someone who is 65 next year will be slightly less than for someone who is 65 this year. In general, using generational mortality anticipates increases in the cost of the Plan over time as participants’ life expectancies are projected to increase.

We understand that RPEC intends to publish annual updates to their mortality improvement scales. Improvement scale MP-2021 is the latest improvement scale available. We recommend that the Board adopt the Amount-Weighted Above-Median Pub-2010 mortality tables (adjusted for CCCERA experience as discussed herein), and project the mortality improvement generationally using the MP-2021 mortality improvement scale.

In order to reflect more CCCERA experience in our analysis, we have used experience for a twelve-year period by using data from the current (from January 1, 2018 through December 31, 2020 and the last three (from January 1, 2015 through December 31, 2017; from

January 1, 2012 through December 31, 2014; and from January 1, 2009 through December 30, 2011) experience study periods in order to analyze this assumption.

Even with the use of twelve years of experience, based on standard statistical theory the data is only partially credible especially under the recommended amount-weighted basis when dispersion of retirees' benefit amounts is taken into account, particularly for the Safety cost groups. In 2008 the SOA published an article recommending that mortality assumptions include an adjustment for credibility. Under this approach, the number of deaths needed for full credibility for a headcount-weighted mortality table is just over 1,000, where full credibility means a 90% confidence that the actual experience will be within 5% of the expected value. Therefore, in our recommended assumptions, we have only partially adjusted the Pub-2010 mortality tables to fit CCCERA's experience particularly for the Safety cost groups. In future experience studies, more data will be available which may further increase the credibility of the CCCERA experience.

Post-Retirement Mortality (Service Retirements)

Among all retired members, the actual deaths weighted by benefit amounts under the current assumptions for the last twelve years are shown in the table below. We also show the deaths weighted by benefit amount under the proposed assumptions. We continue to recommend the use of a generational mortality table, which incorporates a more explicit assumption for future mortality improvement. Accordingly, the goal is to start with a mortality table that closely matches the current experience (without a margin for future mortality improvement), and then reflect mortality improvement by projecting lower mortality rates in future years.

The proposed mortality table also reflects current experience to the extent that the experience is credible based on standard statistical theory. For CCCERA, the volume of General member data makes it relatively credible. In contrast, there is much less Safety data, so it is given substantially less credibility. As shown in the table below, the proposed mortality tables have actual to expected ratios of 101% and 100% for General and Safety respectively, after an adjustment to the Safety male and female rates for partial credibility. In future years the ratios should remain around 101% and 100% for General and Safety, respectively, as long as actual mortality improves at the same rates as anticipated by the generational mortality tables. The number of actual deaths compared to the number expected under the current and proposed assumptions weighted by benefit amounts for the last twelve years are as follows:

Healthy Retiree Mortality Experience – Benefit Weighted
($ in millions)

	General Members			Safety Members		
Gender	Current Expected Weighted Deaths	Actual Weighted Deaths	Proposed Expected Weighted Deaths	Current Expected Weighted Deaths	Actual Weighted Deaths	Proposed Expected Weighted Deaths
Male	$25.78	$25.98	$25.83	$16.53	$17.04	$16.54
Female	$25.94	$26.43	$25.95	$1.38	$0.75	$1.31
Total	**$51.72**	**$52.41**	**$51.78**	**$17.91**	**$17.79**	**$17.85**
Actual / Expected	**101%**		**101%**	**99%**		**100%[1]**

Notes:

1. Experience shown above is weighted by annual benefit amounts for deceased members.
2. Expected amounts under the proposed generational mortality table are based on mortality rates from the base year projected with mortality improvements to the experience study period.
3. Results may not add due to rounding.

For General members, we recommend updating the post-retirement mortality to follow the Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021.

For Safety members, we recommend updating the post-retirement mortality to follow the Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), increased by 5% for males and decreased by 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.

Chart 13 that follows later in this section compares the number of actual to expected deaths on a benefit-weighted basis over the past twelve years for the current and proposed assumptions for Service Retirement General members.

Chart 14 compares the number of actual to expected deaths on a benefit-weighted basis over the past twelve years for the current and proposed assumptions for Service Retirement Safety members.

Chart 15 shows the life expectancies (i.e., expected future lifetime) under the current and the proposed tables for General members on a benefit-weighted basis. Life expectancies under the proposed generational mortality rates are based on age as of 2022. In practice, assumed life expectancies will increase as a result of the mortality improvement scale.

Chart 16 shows the life expectancies (i.e., expected future lifetime) under the current and the proposed tables for Safety members on a benefit-weighted basis. Life expectancies under the

[1] If we use the benchmark Pub-2010 Safety table without any adjustment, the proposed actual to expected ratio would be 104%.

proposed generational mortality rates are based on age as of 2022. In practice, assumed life expectancies will increase as a result of the mortality improvement scale.

Beneficiary Mortality

The Pub-2010 Contingent Survivors Table is developed based only on contingent survivor data after the death of the retirees. This is consistent with the mortality experience that we have available for beneficiaries. The Pub-2010 contingent survivor mortality rates are comparable to CCCERA's actual mortality experience for beneficiaries. However, in contrast to service retirees, there is much less beneficiary data, so it is given little credibility when adjusting the base table. As shown in the table below, the proposed mortality tables have an actual to expected ratio of 110%, after adjustments for partial credibility. In future years the ratio should remain around 110% as long as actual mortality improves at the same rates as anticipated by the generational mortality tables. The number of actual deaths compared to the number expected under the current and proposed assumptions weighted by benefit amounts for the last twelve years are as follows:

Beneficiary Mortality Experience – Benefit Weighted
($ in millions)

Gender	Current Expected Weighted Deaths	Actual Weighted Deaths	Proposed Expected Weighted Deaths
Male	$2.59	$3.09	$2.60
Female	$14.58	$15.93	$14.62
Total	$17.17	$19.02	$17.21
Actual / Expected	**111%**		**110%**[1]

Notes:

1. Experience shown above is weighted by annual benefit amounts for deceased beneficiaries.
2. Expected amounts under the proposed generational mortality table are based on mortality rates from the base year projected with mortality improvements to the experience study period.
3. Results may not add due to rounding.

For all beneficiaries, we recommend updating the beneficiary mortality to follow the Pub-2010 Contingent Survivor Amount-Weighted Above-Median Mortality Table (separate tables for males and females) increased by 5% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2021.

As stated above, the Contingent Survivor mortality tables are developed based on contingent survivor data only after the death of the retirees (i.e., it does not reflect any contingent survivor data before the death of the retirees). In the last experience study, we recommended that the Board applied the Contingent Survivor mortality tables to predict the mortality rates for the beneficiaries both before and after the death of the retirees. According to analysis provided by

[1] If we use the benchmark Pub-2010 Contingent Survivor table without any adjustment, the proposed actual to expected ratio would be 116%.

RPEC, the mortality rates for the beneficiaries could be somewhat overstated before the death of the retirees as the Contingent Survivor mortality tended to be higher than retiree mortality and the difference was statistically significant. Based on this analysis, for the purposes of the actuarial valuations (for funding and financial reporting), when calculating the liability for the continuance to a beneficiary of a surviving member, we recommend that the General Healthy Retiree mortality tables be used for beneficiary mortality both before and after the expected death of the General or Safety member. Upon the actual death of the member (i.e., for all beneficiaries in pay status as of the valuation date), we recommend for the purposes of the actuarial valuations that we use the Contingent Survivor mortality tables as stated above. We note that the use of different mortality tables (before and after the death of the member) has been found by the RPEC to be reasonable.

Pre-Retirement Mortality

For General members, the table currently being used for pre-retirement mortality rates is the Pub-2010 General Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional scale MP-2018. For Safety members, the table currently being used for pre-retirement mortality rates is the Pub-2010 Safety Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional scale MP-2018.

When analyzing pre-retirement mortality, there is much less data available, so it is given little credibility when adjusting the base table. As shown in the table below, the proposed mortality tables have an actual to expected ratio of 90% for both General and Safety, after adjustments for partial credibility. In future years the ratio should remain around 90% for both General and Safety as long as actual mortality improves at the same rates as anticipated by the generational mortality tables. The number of actual deaths compared to the number expected under the current and proposed assumptions weighted by annual salary for the last twelve years are as follows:

Pre-Retirement Mortality Experience – Salary Weighted
($ in millions)

	General Members			Safety Members		
Gender	Current Expected Weighted Deaths	Actual Weighted Deaths	Proposed Expected Weighted Deaths	Current Expected Weighted Deaths	Actual Weighted Deaths	Proposed Expected Weighted Deaths
Male	$3.25	$2.95	$3.27	$1.11	$1.13	$1.13
Female	$4.06	$3.62	$4.04	$0.14	$0.00	$0.14
Total	**$7.31**	**$6.57**	**$7.31**	**$1.25**	**$1.13**	**$1.26**
Actual / Expected	**90%**		**90%**	**91%**		**90%**

Notes:

1. Experience shown above is weighted by annual salary for deceased members.
2. Expected amounts under the proposed generational mortality table are based on mortality rates from the base year projected with mortality improvements to the experience study period.
3. Results may not add due to rounding.

For General members, we recommend updating the pre-retirement mortality to follow the Pub-2010 General Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021.

For Safety members, we recommend updating the pre-retirement mortality to follow the Pub-2010 Safety Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021.

Currently, our assumption is that all General and Safety member pre-retirement deaths are non-service connected. **We recommend maintaining the current assumption for both General and Safety members.**[1]

Mortality Table for Member Contributions, Optional Forms of Payments and Reserves

There are administrative reasons why a generational mortality table is more difficult to implement for determining member contributions for legacy tiers (i.e., non-CalPEPRA), optional forms of payment, and reserves. One emerging practice is to approximate the use of a generational mortality table by the use of a static table with projection of the mortality improvement from the measurement year over a period that is close to the duration of the benefit payments for active members. We would recommend the use of this approximation for determining member contributions for employees in the legacy tiers.

For General members, we recommend that the mortality table used for determining contributions be updated to a blended table based on the Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2021, weighted 30% male and 70% female.

For Safety members, we recommend that the mortality table used for determining contributions be updated to a blended table based on the Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), increased by 5% for males and decreased by 5% for females, projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2021, weighted 85% male and 15% female.

For optional forms of payment and reserves, we would apply a similar methodology for the members mortality tables. Furthermore, as there are complications associated with using different mortality tables for the beneficiaries before and after the death of the retiree, **we recommend that the General Health Retiree mortality tables be used for the beneficiaries in determining optional forms of payment and reserves for General or Safety retirees.** However, the projection of the mortality improvement would be from the measurement year over a period that is close to the duration of the benefit payments for active members retiring in the next three years. The recommended tables along with the mortality rates will be provided in a separate letter at a later date, similar to prior years.

[1] While it is possible that COVID-19 deaths for members in certain industries may be considered service connected, we do not recommend a change in our assumption to reflect this possible short-term increase in service connected deaths.

For General service retirements, we recommend that the mortality table used for determining optional forms of payment be updated to a blended table based on the Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected 25 years (from 2010) with the two-dimensional mortality improvement scale MP-2021, weighted 30% male and 70% female.

For Safety service retirements, we recommend that the mortality table used for determining optional forms of payment be updated to a blended table based on the Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), increased by 5% for males and decreased by 5% for females, projected 25 years (from 2010) with the two-dimensional mortality improvement scale MP-2021, weighted 85% male and 15% female.

For General disability retirements, we recommend that the mortality table used for determining optional forms of payment be updated to a blended table based on the Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females), increased by 5% for males and unadjusted for females, projected 25 years (from 2010) with the two-dimensional mortality improvement scale MP-2021, weighted 30% male and 70% female.

For Safety disability retirements, we recommend that the mortality table used for determining optional forms of payment be updated to a blended table based on the Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females), increased by 5% for males and unadjusted for females, projected 25 years (from 2010) with the two-dimensional mortality improvement scale MP-2021, weighted 85% male and 15% female.

The analysis for Disabled mortality rates is discussed in the next subsection.

For all beneficiaries, we recommend that the mortality table used for determining optional forms of payment be updated to a blended table based on the 2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected 25 years (from 2010) with the two-dimensional mortality improvement scale MP-2021, and weighted 70% male and 30% female for General beneficiaries and weighted 15% male and 85% female for Safety beneficiaries.

Chart 13: Post-Retirement Benefit-Weighted Deaths ($ In Millions)
Service Retirement General Members
(January 1, 2009 through December 31, 2020)

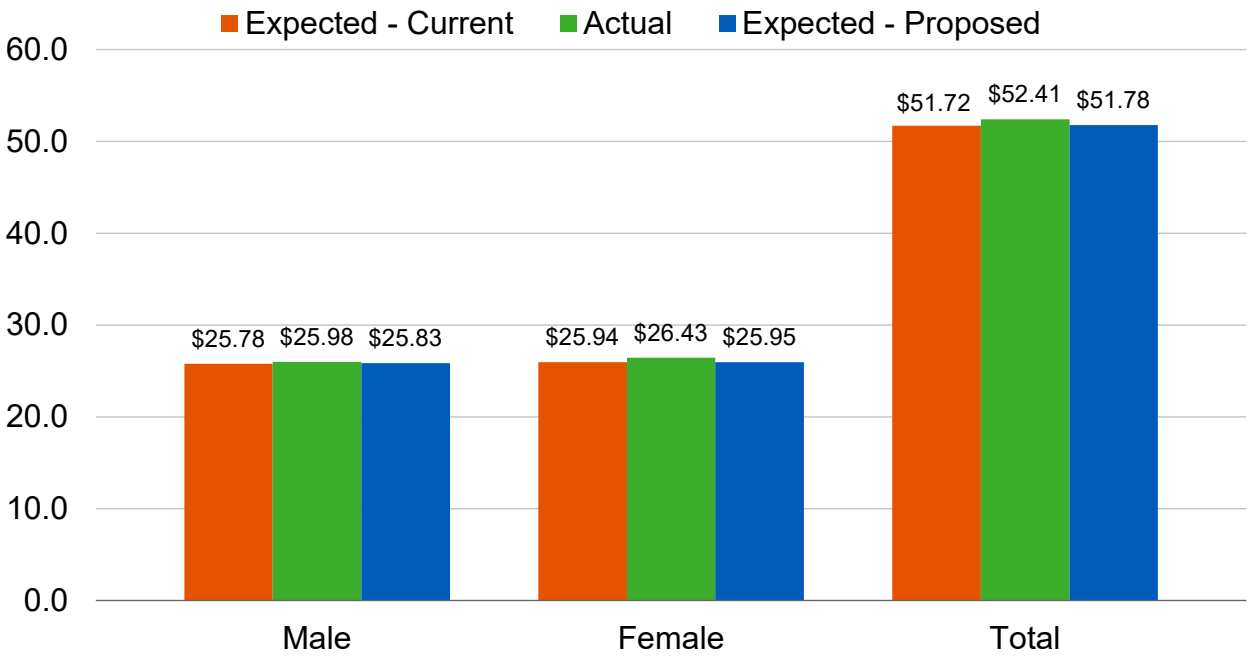


Chart 14: Post-Retirement Benefit-Weighted Deaths ($ In Millions)
Service Retirement Safety Members
(January 1, 2009 through December 31, 2020)

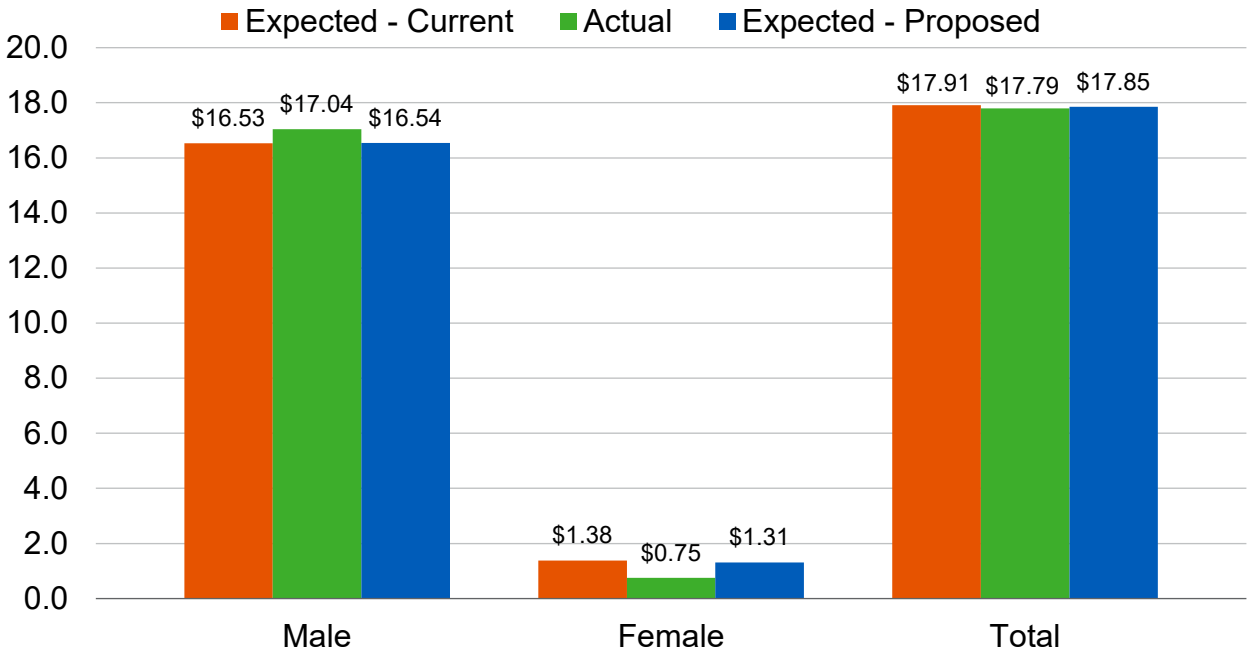


Chart 15: Benefit-Weighted Life Expectancies
Service Retirement General Members

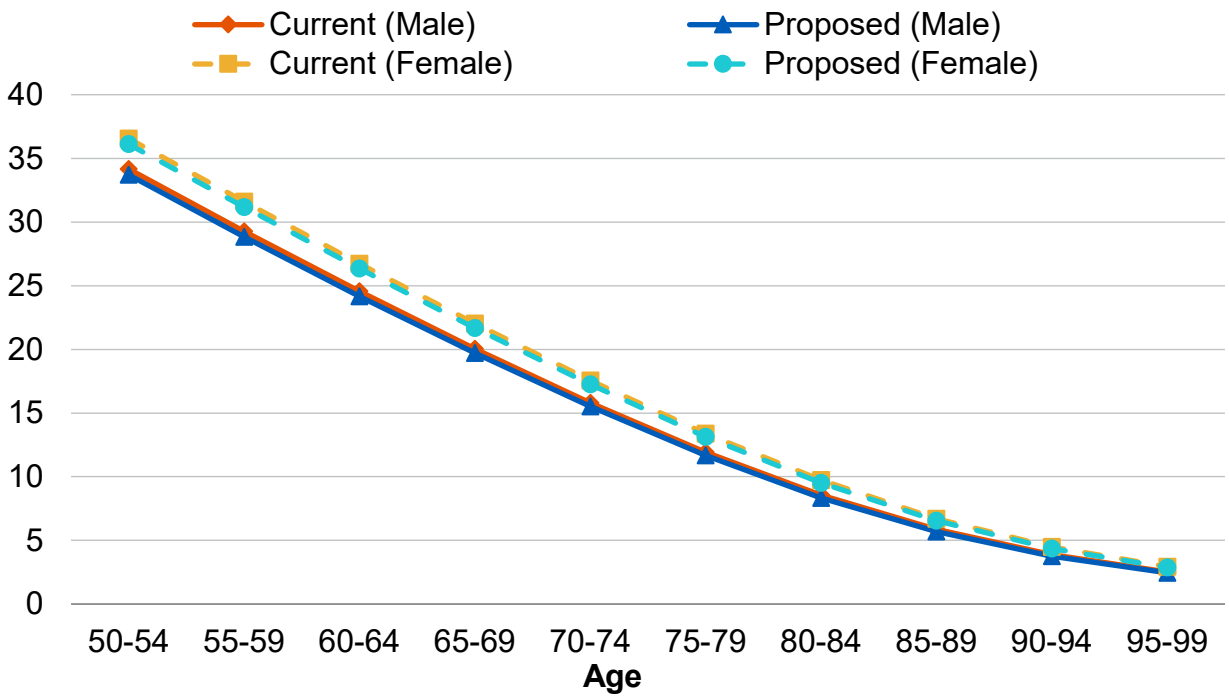
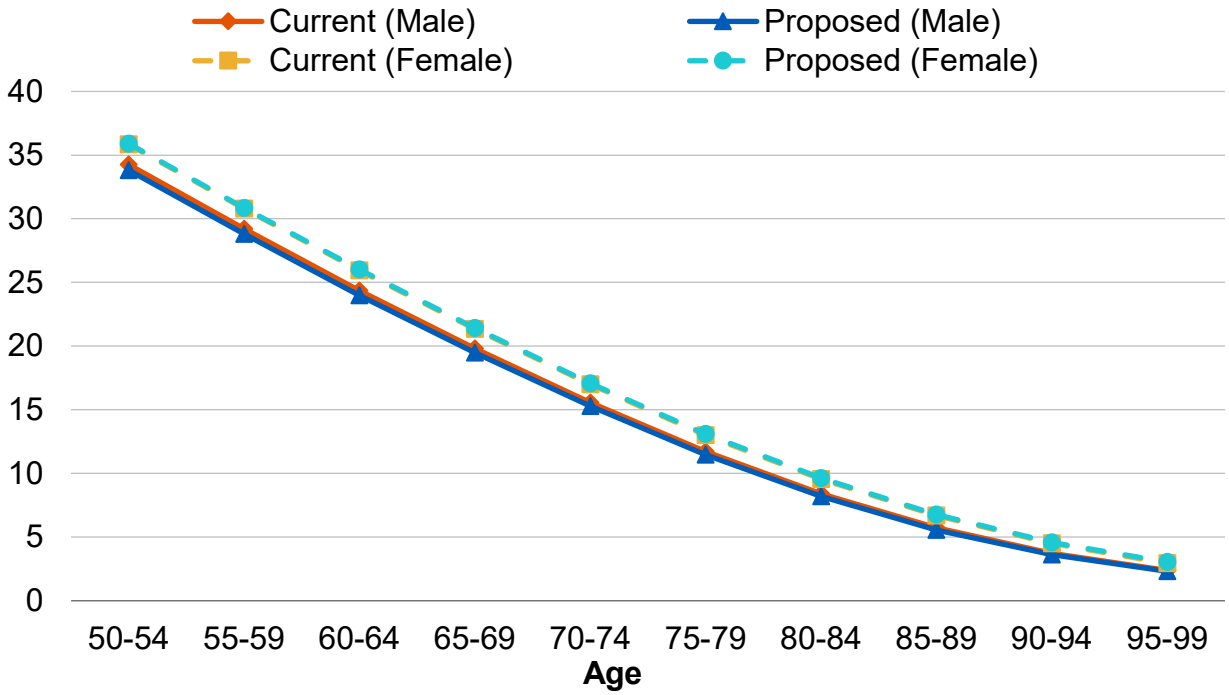


Chart 16: Benefit-Weighted Life Expectancies
Service Retirement Safety Members



C. Mortality Rates - Disabled

Since mortality rates for disabled members can vary from those of healthy members, a different mortality assumption is often used. For General members the table currently being used is the Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) increased by 5% for males and unadjusted for females, projected generationally with the two-dimensional mortality improvement scale MP-2018. For Safety members, the table currently being used is the Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) increased by 5% for males and unadjusted for females, projected generationally with the two-dimensional mortality improvement scale MP-2018.

Similar to mortality rates for service retirees, the proposed mortality table reflects current experience to the extent that the experience is credible based on standard statistical theory. For CCCERA, there is far less data for disabled retirees, so it is given little credibility. As shown in the table below, the proposed mortality tables have actual to expected ratios of 104% and 101% for General and Safety respectively, after adjustments for partial credibility. In future years the ratio should remain around 104% and 101% for General and Safety, respectively, as long as actual mortality improves at the same rates as anticipated by the generational mortality tables. The number of actual deaths compared to the number expected under the current and proposed assumptions weighted by benefit amounts for the last twelve years are as follows:

Disabled Retiree Mortality Experience – Benefit Weighted

($ in millions)

	General Members			Safety Members		
Gender	Current Expected Weighted Deaths	Actual Weighted Deaths	Proposed Expected Weighted Deaths	Current Expected Weighted Deaths	Actual Weighted Deaths	Proposed Expected Weighted Deaths
Male	$2.29	$2.48	$2.29	$6.36	$6.50	$6.36
Female	$3.45	$3.51	$3.44	$0.31	$0.22	$0.31
Total	**$5.74**	**$5.99**	**$5.73**	**$6.67**	**$6.72**	**$6.67**
Actual / Expected	**104%**		**104%[1]**	**101%**		**101%[2]**

Notes:

1. Experience shown above is weighted by annual benefit amounts for deceased members.
2. Expected amounts under the proposed generational mortality table are based on mortality rates from the base year projected with mortality improvements to the experience study period.
3. Results may not add due to rounding.

For General disabled members, we recommend updating the disabled mortality to follow the Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Table (separate

[1] If we use the benchmark Pub-2010 Non-Safety Disabled table without any adjustment, the proposed actual to expected ratio would be 106%.

[2] If we use the benchmark Pub-2010 Safety Disabled table without any adjustment, the proposed actual to expected ratio would be 105%.

tables for males and females) with rates increased by 5% for males and unadjusted for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.

For Safety disabled members, we recommend updating the disabled mortality to follow the Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) with rates increased by 5% for males and unadjusted for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.

Chart 17 compares the number of actual to expected deaths on a benefit-weighted basis over the past twelve years for the current and proposed assumptions for disabled General members.

Chart 18 compares the number of actual to expected deaths on a benefit-weighted basis over the past twelve years for the current and proposed assumptions for disabled Safety members.

Chart 19 shows the life expectancies (i.e., expected future lifetime) under the current and the proposed tables for disabled General members on a benefit-weighted basis. Life expectancies under the current and proposed generational mortality rates are based on age as of 2022. In practice, life expectancies will be assumed to increase based on applying the mortality improvement scale.

Chart 20 shows the life expectancies (i.e., expected future lifetime) under the current and the proposed tables for disabled Safety members on a benefit-weighted basis.

Chart 17: Post-Retirement Benefit-Weighted Deaths ($ In Millions)
Disabled General Members
(January 1, 2009 through December 31, 2020)

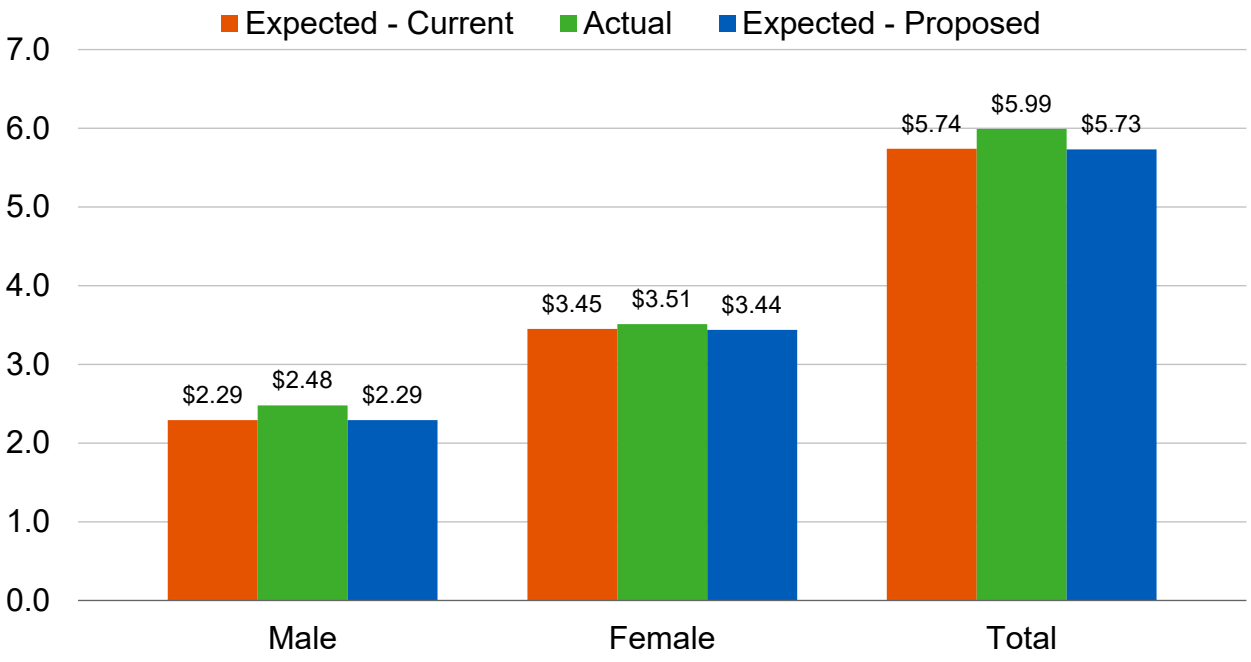


Chart 18: Post-Retirement Benefit-Weighted Deaths ($ In Millions)
Disabled Safety Members
(January 1, 2009 through December 31, 2020)

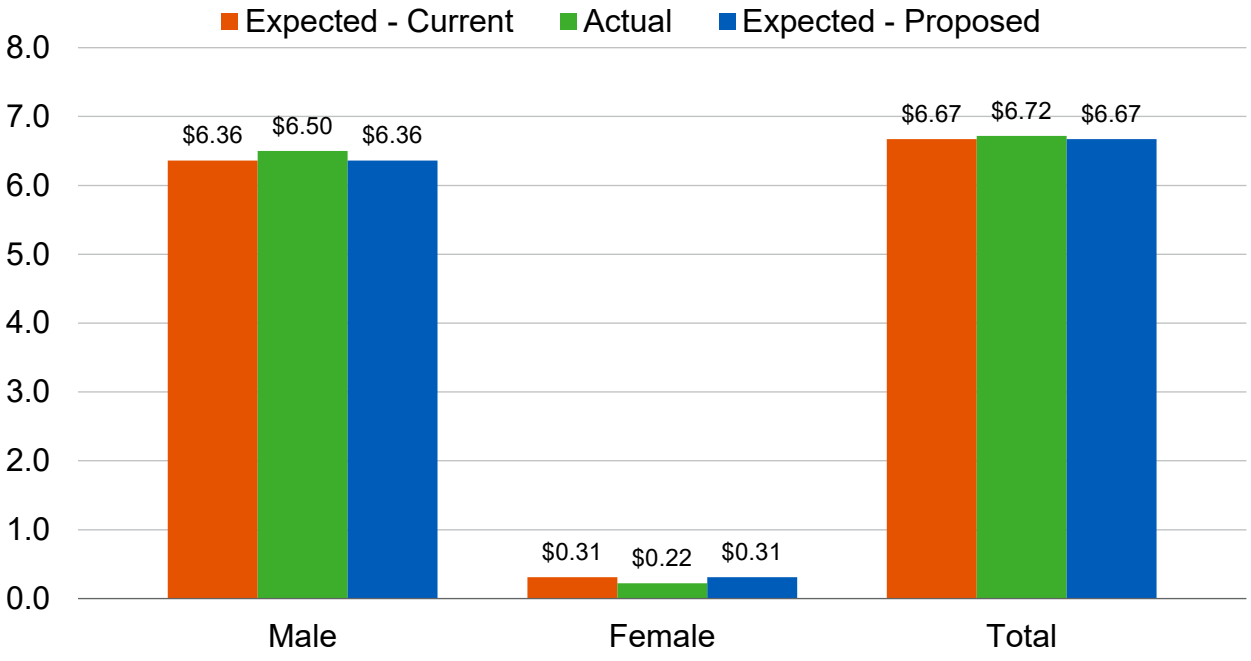


Chart 19: Benefit-Weighted Life Expectancies
Disabled General Members

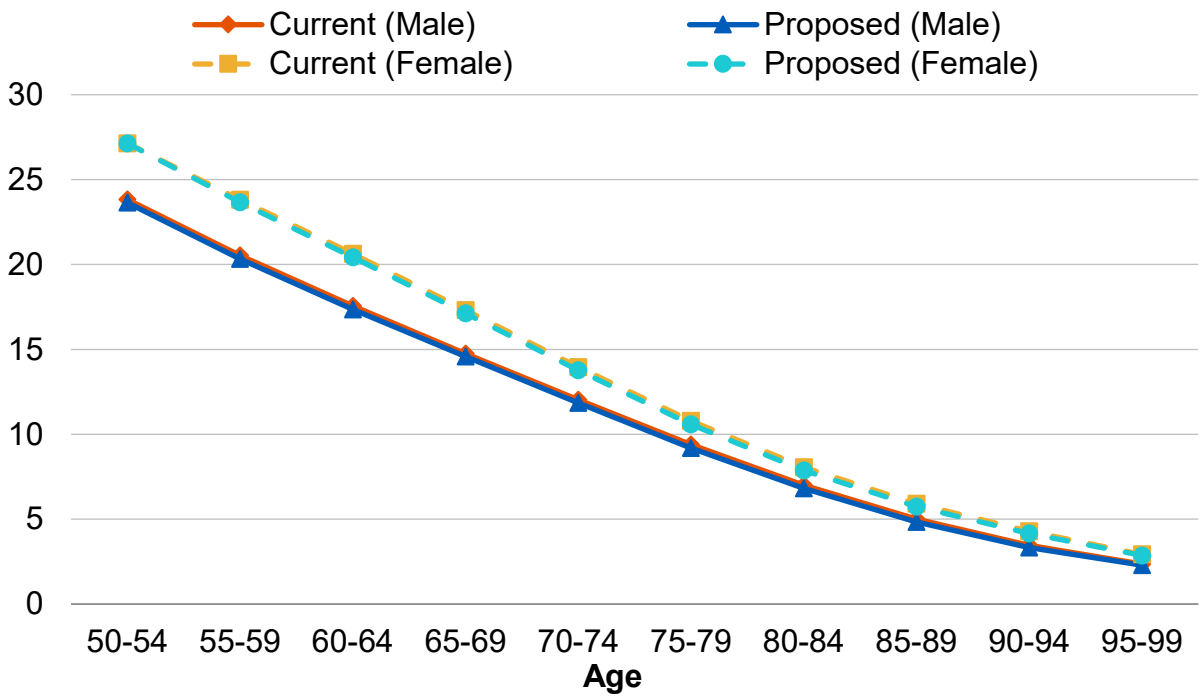
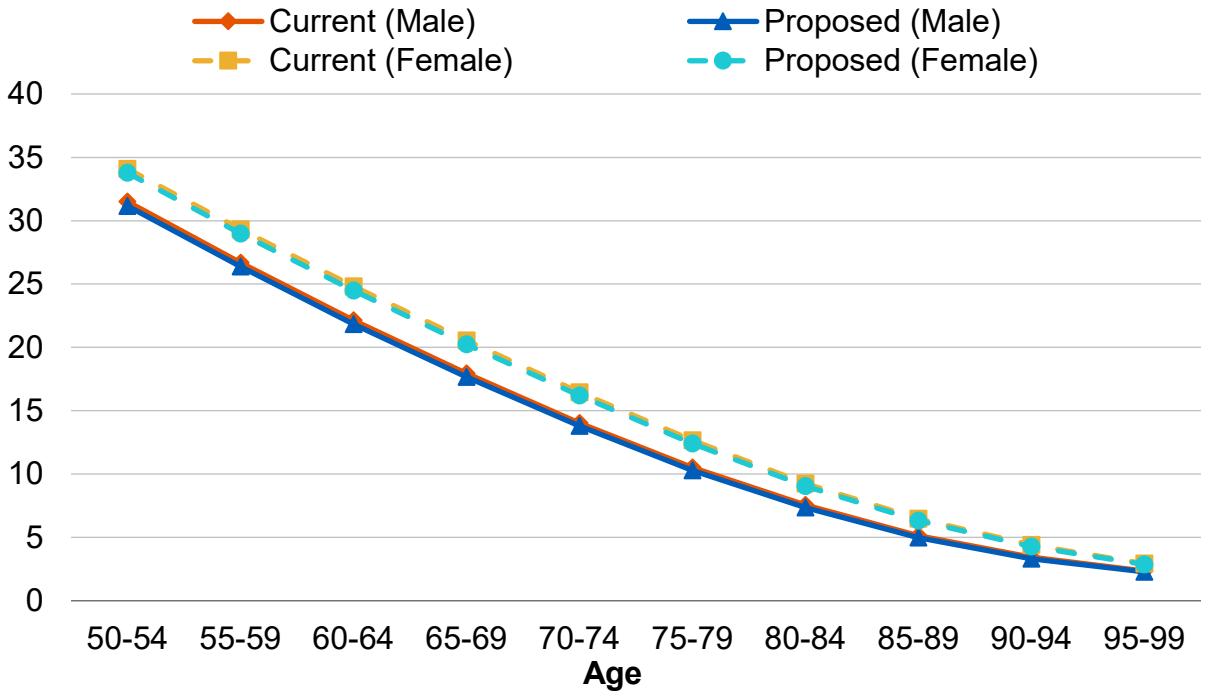


Chart 20: Benefit-Weighted Life Expectancies
Disabled Safety Members



D. Termination Rates

Termination rates include all terminations for reasons other than death, disability, or retirement. Under the current assumptions there is an overall incidence of termination assumed, combined with an assumption that a member will choose between a refund of member contributinos and a deferred vested benefit based on which option is more valuable, measured by its present value at the date of the member's termination. Furthermore, the termination rates are based on a function of the member's years of service.

We recommend maintaining the assumption that a terminating member will elect either a refund of member contributions or a deferred vested benefit based on which option is more valuable.

The following table shows the observed termination rates for General and Safety members based on the actual experience over the past three years. Also shown are the current assumed rates and the rates we propose. Please note that we have excluded any members that were eligible for retirement.

Termination

Rates (%)

	General			Safety		
Years of Service	Current Rate	Actual Rate	Proposed Rate	Current Rate	Actual Rate	Proposed Rate
Less than 1	14.00	14.23	14.00	12.50	9.18	11.00
1 – 2	9.50	9.85	9.50	10.00	5.45	9.00
2 – 3	9.25	8.61	9.00	8.25	6.55	7.00
3 – 4	6.50	5.85	6.25	5.75	3.19	5.00
4 – 5	5.25	6.28	6.25	5.00	0.45	4.00
5 – 6	5.00	5.14	5.00	4.25	3.40	3.50
6 – 7	4.50	4.87	4.50	3.50	0.59	3.00
7 – 8	4.25	3.39	4.00	3.25	1.36	2.50
8 – 9	3.75	3.48	3.75	3.00	0.00	2.50
9 – 10	3.50	4.02	3.75	2.50	0.84	2.00
10 – 11	3.25	4.41	3.50	2.25	1.32	2.00
11 – 12	3.00	4.35	3.25	2.10	0.00	2.00
12 – 13	2.75	2.55	2.75	2.00	2.45	2.00
13 – 14	2.50	1.17	2.50	1.90	0.79	1.80
14 – 15	2.50	2.43	2.50	1.80	0.00	1.60
15 – 16	2.25	2.43	2.25	1.70	0.00	1.50
16 – 17	2.25	2.53	2.25	1.60	1.28	1.40
17 – 18	2.00	1.08	2.00	1.50	0.00	1.30
18 – 19	2.00	1.67	2.00	1.25	0.00	1.20
19 – 20	1.75	1.49	1.50	1.00	1.45	1.00
20 & Over	1.25	2.48	1.50	0.75	0.00	0.50

It is important to note that not every service category has enough exposures and/or decrements such that the results in that category are statistically credible even if we look at six years' worth of experience. This is mainly the case for those members with twenty or more years of service since most members with that much service are eligible to retire and have been excluded from our review of this termination experience as mentioned above.

Based on this experience, we recommend decreasing the termination rate assumption for certain service groups while increasing the termination rate assumption for other service groups. Overall, the proposed rates represent a slight increase from the current rates for General members and a decrease from the current rates for Safety members.

We also continue to recommend that no termination is assumed after a member is first assumed to retire.

Chart 21 compares the number of actual to expected terminations over the past three years for the current and proposed assumptions for General members.

Chart 22 compares the number of actual to expected terminations over the past three years for the current and proposed assumptions for Safety members.

Chart 23 compares the actual termination experience with the current and proposed assumptions for General members.

Chart 24 compares the actual termination experience with the current and proposed assumptions for Safety members.

Chart 21: Actual Number of Terminations Compared to Expected – General Members

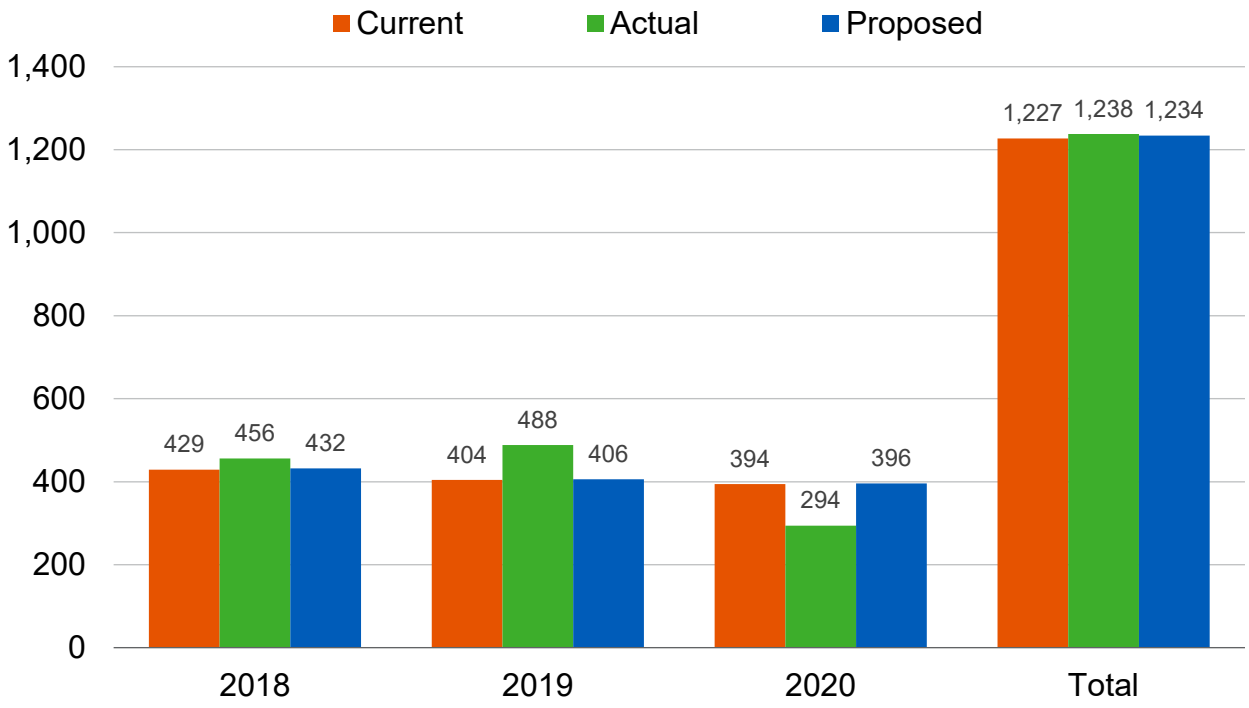


Chart 22: Actual Number of Terminations Compared to Expected – Safety Members

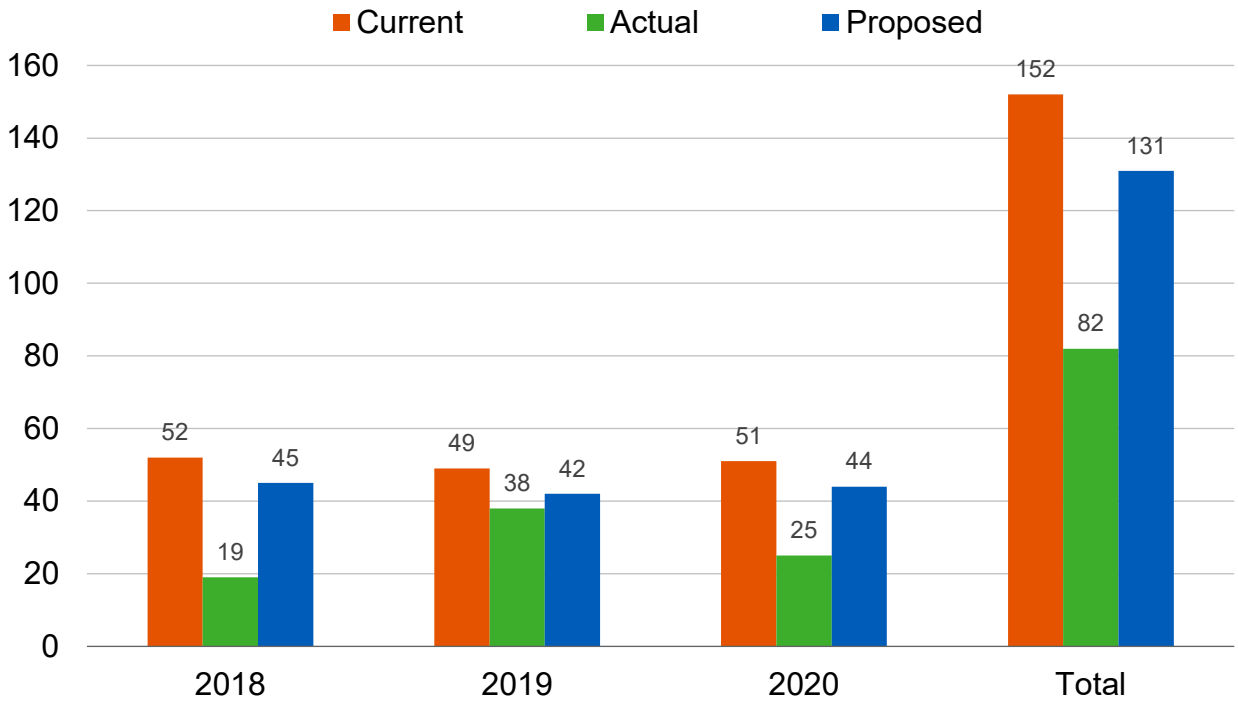


Chart 23: Termination Rates – General Members

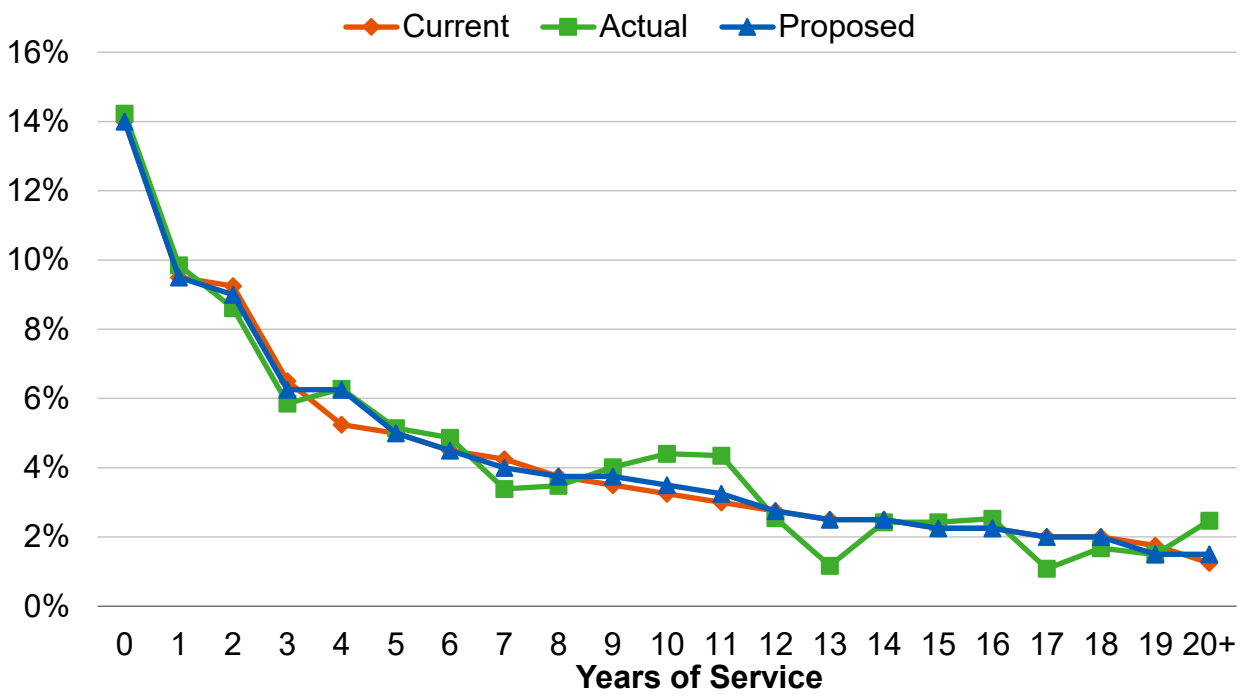
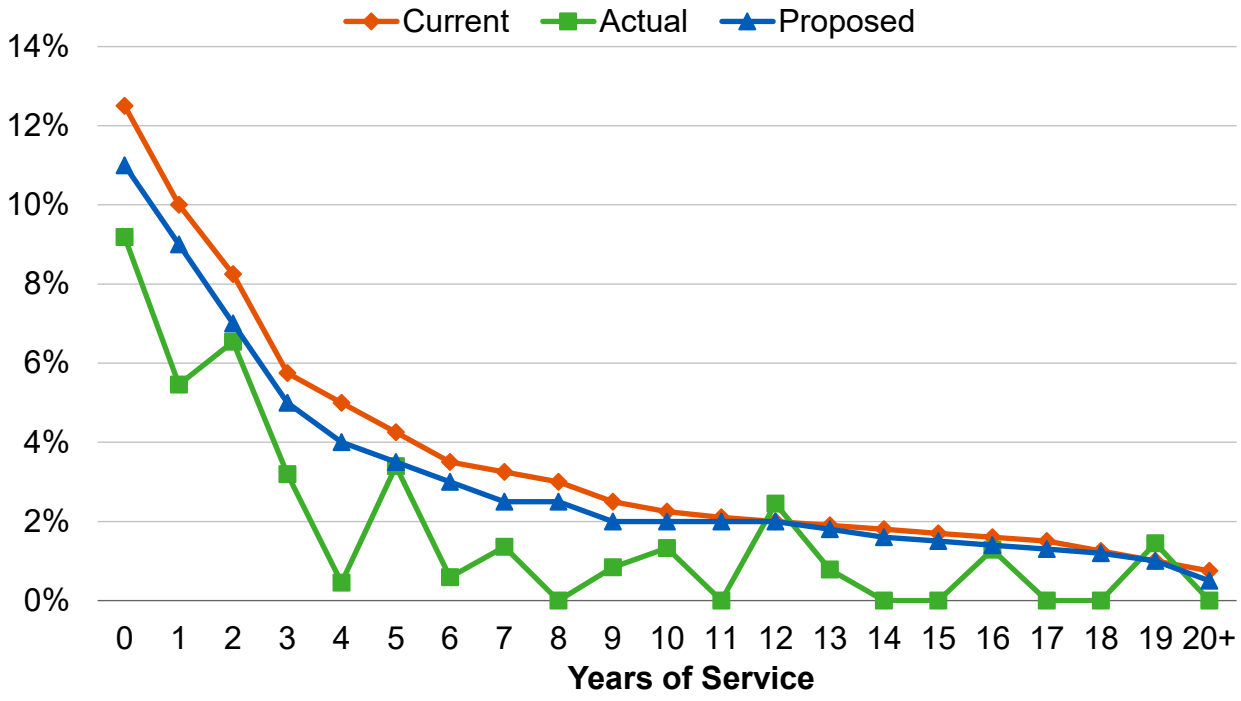


Chart 24: Termination Rates – Safety Members



E. Disability Incidence Rates

When a member becomes disabled, he or she may be entitled to at least a 50% of pay pension (service connected disability), or a pension that depends upon the member's years of service (non-service connected disability). The Plan also requires members who retire because of disability from General Tier 3 and General PEPRA Tier 5 to offset the Plan's disability benefits with other Plans of the employer.

The following table shows the observed disability incidence rates for General Tier 1 and Tier 4 members and General Tier 3 and Tier 5 members based on the actual experience over the past three years. Also shown are the current assumed rates and the rates we propose. Please note that we have combined service and non-service connected disability incidence in the table below.

General Disability Incidence[1]

Rates (%)

	Tier 1 and Tier 4			Tier 3 and Tier 5		
Age	Current Rate	Actual Rate	Proposed Rate	Current Rate	Actual Rate	Proposed Rate
20 – 24	0.01	0.00	0.01	0.01	0.00	0.01
25 – 29	0.02	0.00	0.02	0.02	0.00	0.02
30 – 34	0.05	0.00	0.05	0.04	0.00	0.04
35 – 39	0.10	0.00	0.10	0.06	0.00	0.06
40 – 44	0.30	0.00	0.30	0.10	0.00	0.08
45 – 49	0.40	0.00	0.40	0.12	0.09	0.10
50 – 54	0.60	1.31	0.60	0.14	0.14	0.14
55 – 59	0.60	0.29	0.60	0.18	0.06	0.18
60 – 64	0.60	0.45	0.60	0.25	0.04	0.18
65 – 69	0.60	2.78	0.60	0.25	0.00	0.18
70 – 74	0.60	0.00	0.60	0.25	0.00	0.18

Based on this experience, we recommend maintaining the disability incidence rate assumption at all ages for General Tier 1 and Tier 4 members and decreasing the disability incidence rate assumption at certain ages for General Tier 3 and Tier 5 members.

Chart 25 that follows later in this section compares the number of actual to expected service and non-service connected disabilities over the past three years for the current and proposed assumptions for General Tier 1 and Tier 4 members.

Chart 26 compares the actual disability incidence experience with the current and proposed assumptions for General Tier 1 and Tier 4 members.

[1] Total rate for service connected and non-service connected disabilities.

Chart 27 compares the number of actual to expected service and non-service connected disabilities over the past three years for the current and proposed assumptions for General Tier 3 and Tier 5 members.

Chart 28 compares the actual disability incidence experience with the current and proposed assumptions for General Tier 3 and Tier 5 members.

The following table shows the observed disability incidence rates for Safety members based on the actual experience over the past three years. Also shown are the current assumed rates and the rates we propose. Please note that we have combined service and non-service connected disability incidence in the table below.

Safety Disability Incidence[1]

Rates (%)

Age	Current Rate	Actual Rate	Proposed Rate
20 – 24	0.10	0.00	0.10
25 – 29	0.20	0.00	0.20
30 – 34	0.40	0.27	0.40
35 – 39	0.50	0.70	0.50
40 – 44	0.60	0.43	0.60
45 – 49	1.10	1.21	1.20
50 – 54	3.50	4.81	4.00
55 – 59	4.00	3.26	4.00
60 – 64	4.50	6.17	4.50
65 – 69	4.50	3.57	4.50
70 – 74	4.50	0.00	4.50

Based on this experience, we recommend increasing the disability incidence rate assumption at certain ages for Safety members.

Chart 29 compares the number of actual to expected service and non-service connected disabilities over the past three years for the current and proposed assumptions for Safety members.

Chart 30 compares the actual disability incidence experience with the current and proposed assumptions for Safety members.

The following table shows the observed percentage of members that received a service versus non-service connected disability based on the actual experience over the past three years. Also shown are the current assumed percentages and the percentages we propose.

[1] Total rate for service connected and non-service connected disabilities.

Service vs. Non-Service Connected Disability

	Disablements Receiving Service Connected Disability			Disablements Receiving Non-Service Connected Disability
	Current Assumption	Actual Percentage	Proposed Assumption	Proposed Assumption
General Tier 1 and Tier 4	60%	78%	65%	35%
General Tier 3 and Tier 5	30%	0%	25%	75%
Safety	100%	93%	100%	0%

Based on this experience, we recommend increasing the assumed percentage for service connected disability for General Tier 1 and Tier 4 members, decreasing the assumed percentage for General Tier 3 and Tier 5 members, and maintaining the assumed percentage for Safety members.

Chart 25: Actual Number of Service and Non-Service Disability Retirements Compared to Expected General Tier 1 and Tier 4 Members

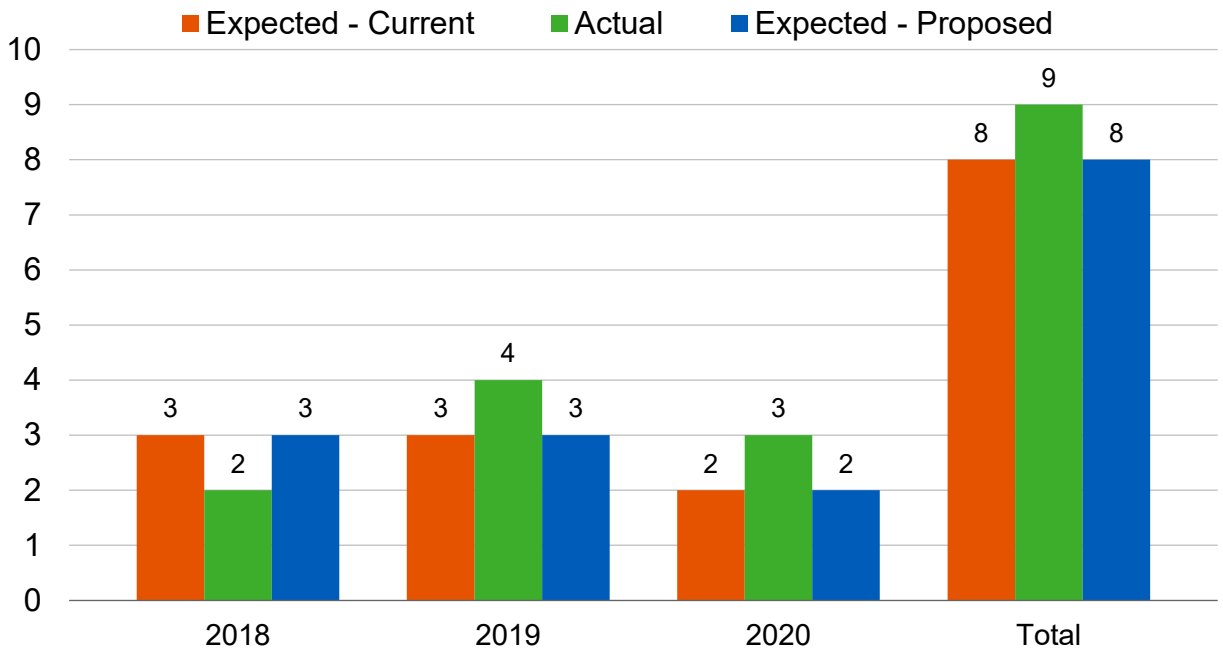


Chart 26: Disability Incidence Rates General Tier 1 and Tier 4 Members

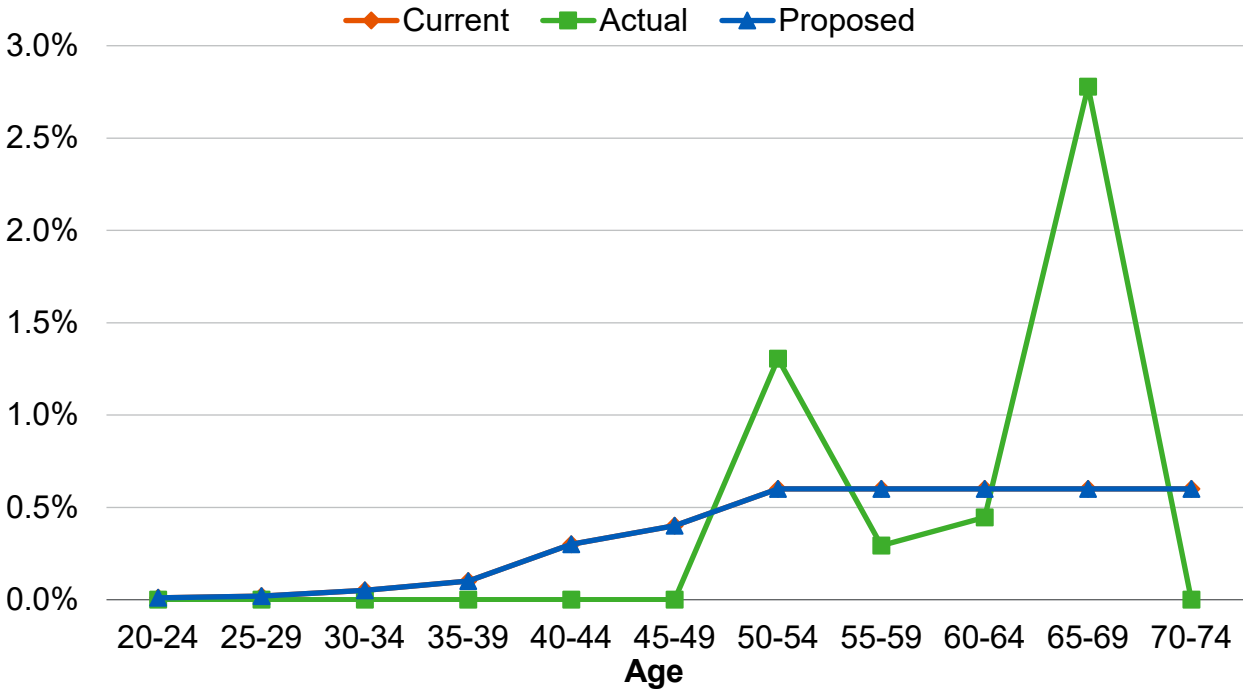


Chart 27: Actual Number of Service and Non-Service Disability Retirements Compared to Expected General Tier 3 and Tier 5 Members

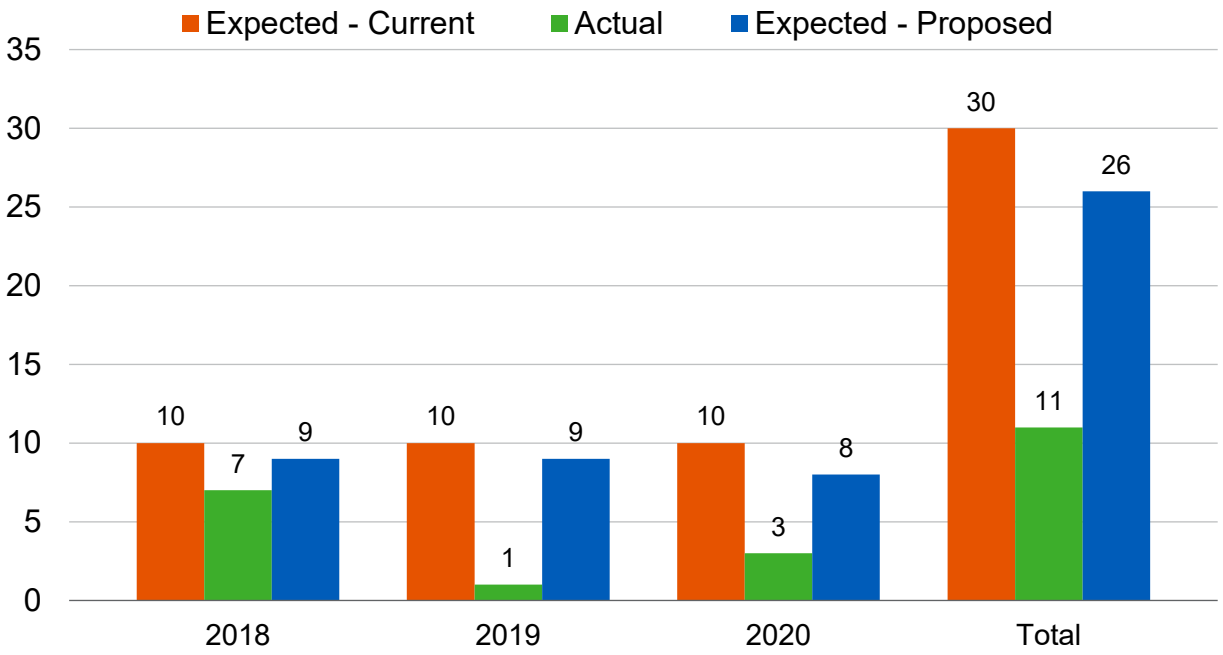


Chart 28: Disability Incidence Rates General Tier 3 and Tier 5 Members

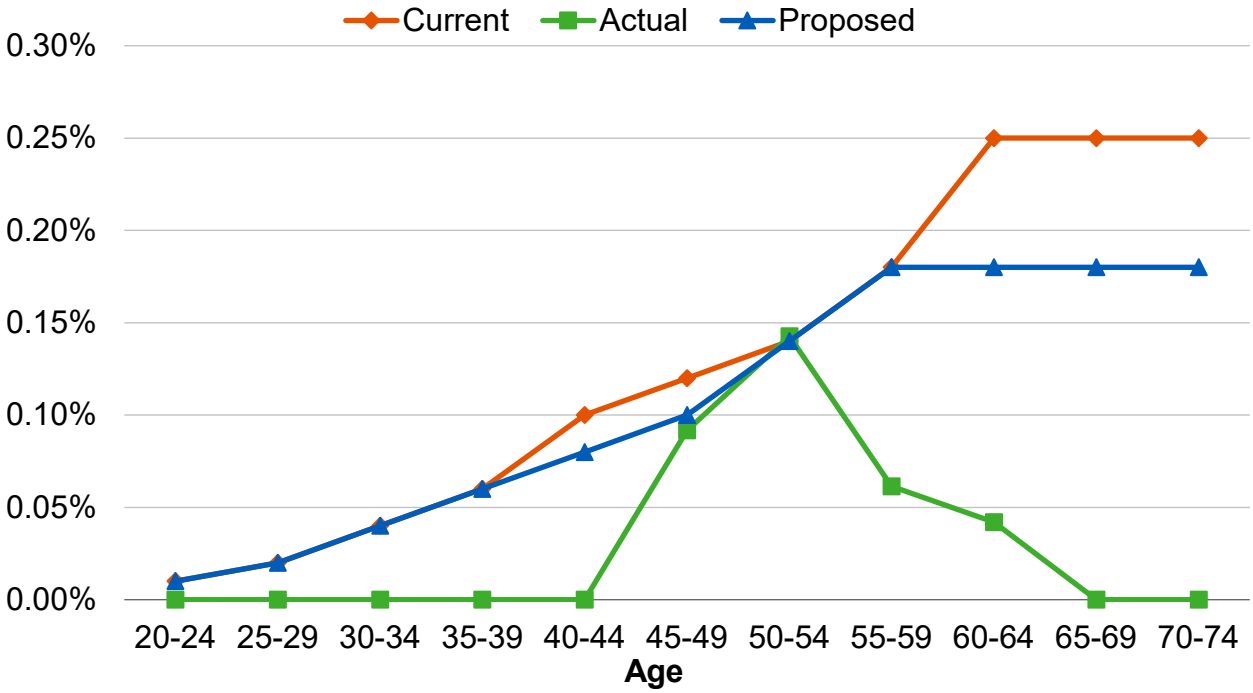


Chart 29: Actual Number of Service and Non-Service Disability Retirements Compared to Expected Safety Members

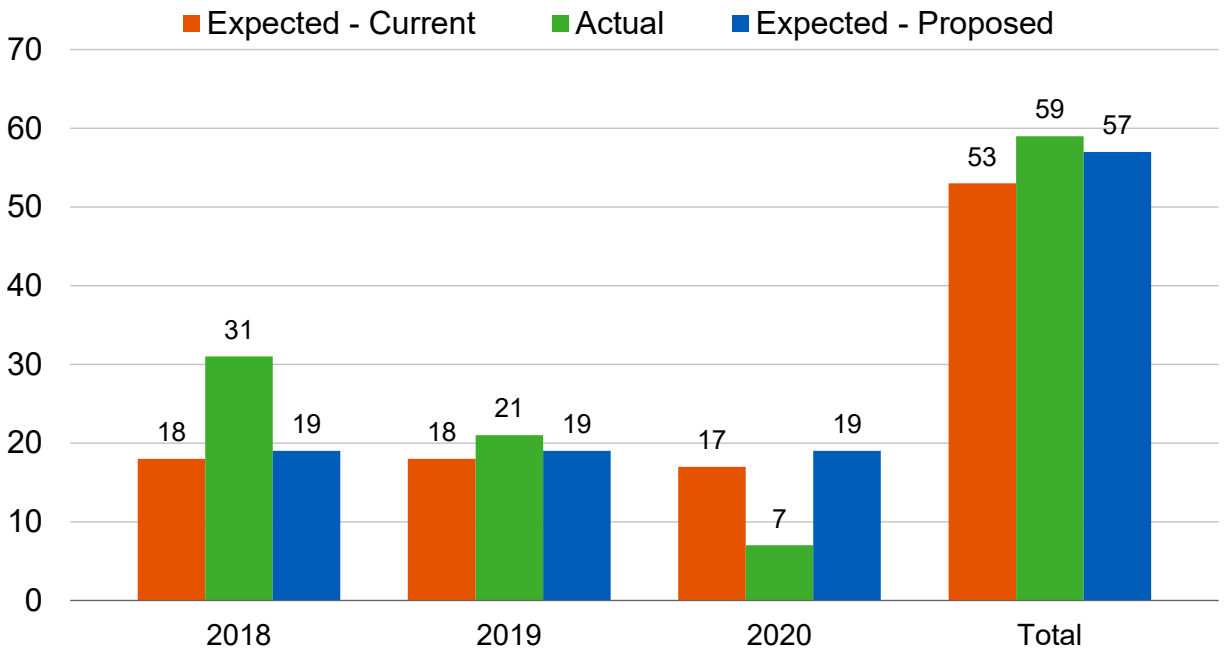
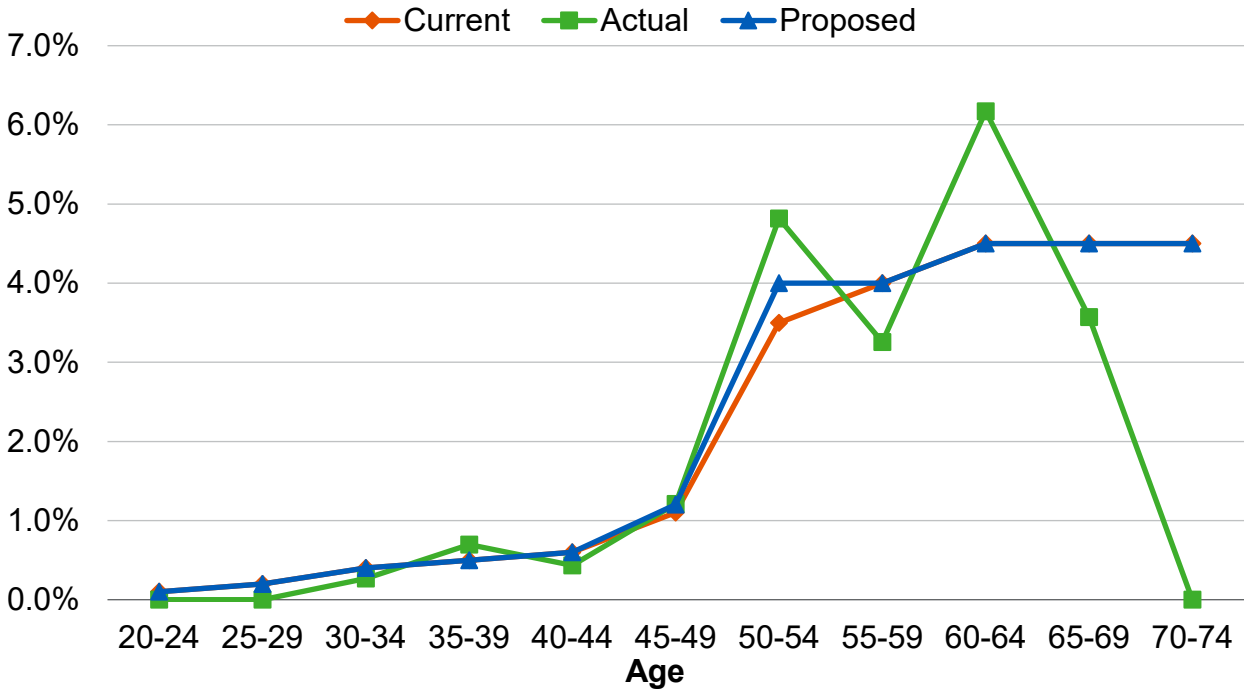


Chart 30: Disability Incidence Rates Safety Members



F. Leave Cashouts

In 1998, the Board of Retirement, in the course of actions related to the Paulson Settlement, determined that several additional pay elements should be included as Earnable Compensation. For purposes of the actuarial valuation, these additional pay elements fall into two categories:

- Ongoing Pay Elements – Those that are expected to be received relatively uniformly over a member's employment years; and
- Leave Cashout Elements – Those that are expected to be received mostly during the member's final average earnings pay period.

The first category is recognized in the actuarial calculations by virtue of being included in the current pay of active members. The second category requires a separate actuarial assumption to anticipate its impact on a member's retirement benefit. Note that members in the PEPRA tiers do not have a leave cashout assumption, because leave cashout elements are not included in pensionable compensation under the PEPRA formulas.

AB 197 required CCCERA to implement a policy where certain terminal pay elements are no longer included in the determination of compensation for retirement purposes. This applies to all legacy tiers. In addition, the Board decided to discontinue "straddling" where employees could time their leave cashouts so that two leave cashouts would occur during their 12-month final average earnings period. The Board decided that only one such payment should be included on a prospective basis.

On July 30, 2020, the California Supreme Court issued a decision in the case of Alameda County Deputy Sheriffs' Association et al. v. Alameda County Employees' Retirement Association (ACERA) and Board of Retirement of ACERA. In particular, the decision requires pension systems like CCCERA to exclude certain pay items from a legacy member's compensation earnable. Our understanding is that the Alameda decision in 2020 does not affect the CCCERA leave cashout policy.

The cost of this pay element is recognized in the valuation as an employer and member cost in both the basic and COLA components.

The following tables show the estimated leave cashouts for non-PEPRA members as a percentage of current pay based on actual experience over the past three years. The leave cashouts shown are only those that occur during the member's final average earnings period.

The results are summarized by cost group followed by a key showing the employers in each cost group. Also shown are the current rate assumed and the rates we propose.

It is not always clear from the member data how much additional leave is cashed out in the years right before retirement (i.e., Leave Cashout Elements) as compared to what is cashed out in earlier years of service (i.e., Ongoing Pay Elements). Our recommended leave cashout assumptions are set based on what is reported during the final average earnings period, which implicitly assumes no leave cashouts prior to that period were included in the Ongoing Pay Elements. However, in some cases we have reduced the assumptions to account for some possibility of leave cashouts occurring in earlier years and reported as Ongoing Pay Elements in those years.

Average Leave Cashout as a % of Final Average Pay (Excluding such Leave Cashout) by Cost Group

Year	Cost Group #1	Cost Group #2 Tier 2	Cost Group #2 Tier 3	Cost Group #3	Cost Group #4	Cost Group #5	Cost Group #6[1]
2018	0.90%	0.50%	0.74%	6.62%	2.81%	0.00%	0.00%
2019	0.76%	0.79%	0.87%	4.44%	3.24%	1.03%	0.00%
2020	1.18%	0.45%	0.61%	7.96%	2.39%	0.00%	0.00%
Average	**0.95%**	**0.59%**	**0.75%**	**6.58%**	**2.88%**	**0.51%**	**0.00%**
Prior Study Average	**0.93%**	**0.36%**	**0.49%**	**4.18%**	**0.64%**	**1.91%**	**0.00%**
Retiring Member Count							
2018	14	136	232	14	3	6	0
2019	25	156	288	10	6	8	0
2020	24	121	219	15	4	2	1
Total	**63**	**413**	**739**	**39**	**13**	**16**	**1**
Current Assumption	**1.00%**	**0.50%**	**0.75%**	**4.75%**	**0.50%**	**1.25%**	**0.25%**
Proposed Assumption	**1.00%**	**0.50%**	**0.75%**	**5.25%**	**1.00%**	**1.00%**	**0.00%**

Average Leave Cashout as a % of Final Average Pay (Excluding such Leave Cashout) by Cost Group (continued)

Year	Cost Group #7	Cost Group #8[2]	Cost Group #9	Cost Group #10	Cost Group #11	Cost Group #12	Cost Group #13[1, 2]
2018	0.77%	0.00%	0.00%	0.00%	3.81%	0.00%	0.00%
2019	0.26%	0.23%	0.00%	0.00%	3.67%	1.31%	0.00%
2020	0.24%	0.00%	0.00%	0.00%	3.56%	0.00%	0.00%
Average	**0.41%**	**0.12%**	**0.00%**	**0.00%**	**3.73%**	**1.31%**	**0.00%**
Prior Study Average	**0.49%**	**0.51%**	**0.00%**	**0.00%**	**3.00%**	**N/A**	**N/A**
Retiring Member Count							
2018	52	7	3	3	16	0	2
2019	68	18	1	4	7	1	1
2020	55	9	2	0	4	0	2
Total	**175**	**34**	**6**	**7**	**27**	**1**	**5**
Current Assumption	**0.75%**	**0.50%**	**0.00%**	**0.50%**	**2.50%**	**2.00%**	**0.50%**
Proposed Assumption	**0.50%**	**0.25%**	**0.00%**	**0.25%**	**3.00%**	**1.75%**	**0.25%**

Based on this experience, we recommend decreasing the leave cashout assumption for some Cost Groups while increasing the leave cashout assumption for other Cost Groups.

[1] CCCERA has confirmed that legacy members in these two Cost Groups are not eligible to apply cashouts in their Final Average Pay.

[2] The annexation of East Contra Costa Fire Protection District (ECCFPD, Cost Group #13) to Contra Costa County Fire Protection District (CCCFPD, Cost Group #8) was approved on March 9, 2022 to be effective July 1, 2022 and it is our understanding that the employees of ECCFPD will be governed by the CCCFPD employment rules after July 1, 2022. The leave cashout information for Cost Groups #8 and #13 as shown in the table above was developed based on their actual experience during the experience study period and reflects their respective current cashout policies. The recommended assumption has been developed after combining experience from the two employers, and so is shown as the same for those two Cost Groups.

Summary of Cost Groups and Employers

General

Cost Group	Employer Name	Benefit Structure
1	County General	Tier 1 Enhanced/PEPRA Tier 4
	Local Agency Formation Commission	Tier 1 Enhanced/PEPRA Tier 4
	Contra Costa Mosquito and Vector Control District	Tier 1 Enhanced/PEPRA Tier 4
	Bethel Island Municipal District (Non-Integrated)	Tier 1 Enhanced/PEPRA Tier 4
	First 5-Children & Families Commission	Tier 1 Enhanced/PEPRA Tier 4
	Contra Costa County Employees' Retirement Association	Tier 1 Enhanced/PEPRA Tier 4
	Superior Court	Tier 1 Enhanced/PEPRA Tier 4
	East Contra Costa Fire Protection District (Non-Integrated)[1]	Tier 1 Enhanced/PEPRA Tier 4
	Moraga-Orinda Fire District (Non-Integrated)	Tier 1 Enhanced/PEPRA Tier 4
	Rodeo-Hercules Fire Protection District (Non-Integrated)	Tier 1 Enhanced/PEPRA Tier 4
	San Ramon Valley Fire District (Non-Integrated)	Tier 1 Enhanced/PEPRA Tier 4
2	County General	Tier 3 Enhanced/PEPRA Tier 5
	In-Home Supportive Services Authority	Tier 3 Enhanced/PEPRA Tier 5
	Contra Costa Mosquito and Vector Control District	Tier 3 Enhanced/PEPRA Tier 5
	Superior Court	Tier 3 Enhanced/PEPRA Tier 5
3	Central Contra Costa Sanitary District (Non-Integrated)	Tier 1 Enhanced/PEPRA Tier 4
4	Contra Costa Housing Authority	Tier 1 Enhanced/PEPRA Tier 4
5	Contra Costa County Fire Protection District (Non-Integrated)[1]	Tier 1 Enhanced/PEPRA Tier 4
6	Rodeo Sanitary District	Tier 1 Non-Enhanced/PEPRA Tier 4
	Byron Brentwood Cemetery	Tier 1 Non-Enhanced/PEPRA Tier 4

[1] It is our understanding that the annexation of East Contra Costa Fire Protection District (ECCFPD) to Contra Costa County Fire Protection District (CCCFPD) will be effective on July 1, 2022. After that date, General employees of ECCFPD will become General employees of CCCFPD in Cost Group #5.

Summary of Cost Groups and Employers (continued)

Safety

Cost Group	Employer Name	Benefit Structure
7	County Safety	Tier A Enhanced/PEPRA Tier D
8	Contra Costa County Fire Protection District[1]	Tier A Enhanced/PEPRA Tier D/E
9	County Safety	Tier C Enhanced/PEPRA Tier E (Members hired on or after January 1, 2007)
10	Moraga-Orinda Fire District	Tier A Enhanced/PEPRA Tier D
11	San Ramon Valley Fire District	Tier A Enhanced/PEPRA Tier D
12	Rodeo-Hercules Fire Protection District	Tier A Non-Enhanced/PEPRA Tier D
13	East Contra Costa Fire Protection District[1]	Tier A Enhanced/PEPRA Tier D

[1] It is our understanding that the annexation of East Contra Costa Fire Protection District (ECCFPD) to Contra Costa County Fire Protection District (CCCFPD) will be effective on July 1, 2022. After that date, Safety employees of ECCFPD in Cost Group #13 will become Safety employees of CCCFPD in Cost Group #8.

G. Service from Unused Sick Leave

At retirement, members can convert their unused sick leave to increase the service credit used in the calculation of their retirement benefit. The actuarial valuation anticipates this additional benefit using an assumption to estimate the proportional increase in service that will occur due to unused sick leave conversions.

Pursuant to Section 31641.01, the cost of this benefit for the non-PEPRA tiers will be charged only to employers and will not affect member contribution rates.

The following table shows the estimated sick leave converted to service credit as a percentage of total service credit (before including the sick leave converted to service credit) at retirement separately for General and Safety members as well as non-disabled and disabled members, based on the actual experience over the past three years. Also shown are the current rates assumed and the rates we propose.

Sick Leave Converted to Service Credit as Percentage of Total Service (Before Including the Sick Leave to be Converted)

	Non-Disabled Retirees		Disabled Retirees	
Year	**General**	**Safety**	**General**	**Safety**
2018	0.71%	1.27%	0.00%	0.37%
2019	0.87%	1.55%	0.34%	0.39%
2020	0.87%	1.40%	0.00%	0.27%
Weighted Average	**0.82%**	**1.41%**	**0.11%**	**0.37%**
Weighted Average from Prior Study	**0.72%**	**1.31%**	**0.02%**	**0.42%**
Current Assumption	**1.10%**	**1.80%**	**0.06%**	**1.20%**
Proposed Assumption	**1.00%**	**1.70%**	**0.06%**	**1.00%**

Based on this experience, we recommend decreasing the sick leave conversion assumption for all non-disabled retirees and disabled Safety retirees while maintaining the sick leave conversion assumption for disabled General retirees.

5. Cost Impact

We have estimated the impact of all the recommended demographic and economic assumptions as if they were applied to the December 31, 2020 actuarial valuation. The table below shows the changes in the employer and member contribution rates due to the proposed assumption changes separately for the recommended economic assumption changes (as recommended in Section 3 of this report which include the recommended merit and promotion salary increases) and the recommended demographic assumption changes (as recommended in Section 4 of this report).

Cost Impact of the Recommended Assumptions Based on December 31, 2020 Actuarial Valuation

Assumption	Impact on Average Employer Contribution Rates
Increase due to changes in economic assumptions	2.69%
Decrease due to changes in demographic assumptions	-0.54%
Total increase in average employer rate	**2.15%**
Total estimated increase in annual dollar amount ($000s) [1]	**$20,306**

Assumption	Impact on Weighted Average Member Contribution Rates
Increase due to changes in economic assumptions	0.39%
Decrease due to changes in demographic assumptions	-0.08%
Total increase in weighted average member rate	**0.31%**
Total estimated increase in annual dollar amount ($000s)[1]	**$2,742**

	Impact on UAAL and Funded Percentage
Increase in UAAL ($000s)	$228,248
Change in Funded Percentage	91.8% to 89.9%

Of the various assumption changes, the most significant rate increase is due to the change in the investment return assumption.

[1] Based on December 31, 2020 projected annual payroll as determined under each set of assumptions.

Assumption Change	Impact on Average Employer Contribution Rates	Impact on Weighted Average Member Contribution Rates	Impact on UAAL ($000s)
Increase due to changes in economic assumptions	**2.69%**	**0.39%**	**$278,827**
Decrease due to changes in demographic assumptions	**-0.54%**	**-0.08%**	**(50,579)**
Total increase due to all assumption changes	**2.15%**	**0.31%**	**$228,248**

We have also analyzed in the tables below the average employer and member contribution rate impacts for each Cost Group due to the recommended assumption changes as if they were applied to the December 31, 2020 actuarial valuation.

Employer Contribution Rate Increases/(Decreases) (% of Payroll)

	Normal Cost	UAAL	Total	Annual Amount[1] ($000s)
General				
Cost Group #1 – County and Small Districts (Tiers 1 and 4)[2]	0.33%	1.20%	1.53%	$365
Cost Group #2 – County and Small Districts (Tiers 3 and 5)	0.13%	1.19%	1.32%	8,894
Cost Group #3 – Central Contra Costa Sanitary District[3]	0.33%	2.14%	2.47%	873
Cost Group #4 – Contra Costa Housing Authority	0.34%	1.82%	2.16%	128
Cost Group #5 – Contra Costa County Fire Protection District[2]	0.32%	1.57%	1.89%	123
Cost Group #6 – Small Districts (Non-Enhanced Tiers 1 and 4)	0.40%	0.00%	0.40%	4
Safety				
Cost Group #7 – County (Tiers A and D)	1.33%	3.96%	5.29%	$2,873
Cost Group #8 – Contra Costa Fire Protection District[2]	1.07%	4.18%	5.25%	2,311
Cost Group #9 – County (Tiers C and E)	1.01%	3.96%	4.97%	2,650
Cost Group #10 – Moraga-Orinda Fire District	1.18%	4.49%	5.67%	502
Cost Group #11 – San Ramon Valley Fire District	1.31%	4.33%	5.64%	1,292
Cost Group #12 – Rodeo-Hercules Fire Protection District	1.39%	4.07%	5.46%	138
Cost Group #13 – East Contra Costa Fire Protection District[2]	1.28%	2.53%	3.81%	155
All Categories combined	**0.35%**	**1.80%**	**2.15%**	**$20,306**

[1] Based on December 31, 2020 projected annual payroll as determined under each set of assumptions.

[2] It is our understanding that the annexation of East Contra Costa Fire Protection District (ECCFPD) to Contra Costa County Fire Protection District (CCCFPD) will be effective on July 1, 2022. After that date, General employees of ECCFPD will become General employees of CCCFPD in Cost Group #5 and Safety employees of ECCFPD in Cost Group #13 will become Safety employees of CCCFPD in Cost Group #8. The above contribution impacts were based on the December 31, 2020 actuarial valuation and so have not been adjusted to reflect the impact of the consolidation for members from ECCFPD and CCCFPD.

[3] Excludes the effect of $70.8 million UAAL prepayment made by Central Contra Costa Sanitary District on June 25, 2021.

Average Member Contribution Rate Increases/(Decreases) (% of Payroll)

	Rate	Annual Amount[1] ($000s)
General		
Cost Group #1 – County and Small Districts (Tiers 1 and 4) [2]	0.26%	$59
Cost Group #2 – County and Small Districts (Tiers 3 and 5)	0.19%	1,120
Cost Group #3 – Central Contra Costa Sanitary District	0.30%	100
Cost Group #4 – Contra Costa Housing Authority	0.29%	16
Cost Group #5 – Contra Costa County Fire Protection District[2]	0.27%	16
Cost Group #6 – Small Districts (Non-Enhanced Tiers 1 and 4)	0.33%	3
Safety		
Cost Group #7 – County (Tiers A and D)	0.78%	$422
Cost Group #8 – Contra Costa Fire Protection District[2]	0.70%	305
Cost Group #9 – County (Tiers C and E)	0.78%	418
Cost Group #10 – Moraga-Orinda Fire District	0.75%	66
Cost Group #11 – San Ramon Valley Fire District	0.76%	173
Cost Group #12 – Rodeo-Hercules Fire Protection District	0.60%	15
Cost Group #13 – East Contra Costa Fire Protection District[2]	0.73%	30
All Categories combined	**0.31%**	**$2,742**

[1] Based on December 31, 2020 projected annual payroll as determined under each set of assumptions.

[2] It is our understanding that the annexation of East Contra Costa Fire Protection District (ECCFPD) to Contra Costa County Fire Protection District (CCCFPD) will be effective on July 1, 2022. After that date, General employees of ECCFPD will become General employees of CCCFPD in Cost Group #5 and Safety employees of ECCFPD in Cost Group #13 will become Safety employees of CCCFPD in Cost Group #8. The above contribution impacts were based on the December 31, 2020 actuarial valuation and so have not been adjusted to reflect the impact of the consolidation for members from ECCFPD and CCCFPD.

Appendix A: Current Actuarial Assumptions

Economic Assumptions

Net Investment Return:	7.00%, net of investment expenses.
Administrative Expenses:	Actual administrative expenses as a percentage of payroll are allocated to both the employer and the member based on normal cost (before expenses) for the employer and member. This assumption changes each year based on the actual administrative expenses and actual payroll. The administrative expense load was 1.14% of payroll based on the December 31, 2020 actuarial valuation.
Employee Contribution Crediting Rate:	7.00%, compounded semi-annually.
Consumer Price Index:	Increases of 2.75% per year. Benefits for General Tier 1, Tier 3 (non-disability), Tier 4 and Tier 5 (non-disability) and Safety Tier A and Tier D are subject to a 3.00% maximum COLA increase due to CPI per year (valued as a 2.75% increase). Benefits for General Tier 2, Tier 3 (disability) and Tier 5 (disability) are subject to a 4.00% maximum change per year (valued as a 2.75% increase). Benefits for General Tier 4 and Tier 5 members covered under certain memoranda of understanding and Safety Tier C and Tier E are subject to a 2.00% maximum change per year (valued as a 2.00% increase). For members that have COLA banks, they are reflected in projected future COLAs. The actual COLA granted by CCCERA on April 1, 2021 has been reflected for non-active members in the December 31, 2020 valuation.
Payroll Growth:	Inflation of 2.75% per year plus “across the board” real salary increases of 0.50% per year, used to amortize the Unfunded Actuarial Accrued Liability as a level percentage of payroll.
Increases in Internal Revenue Code Section 401(a)(17) Compensation Limit:	Increase of 2.75% per year from the valuation date.
Increase in Section 7522.10 Compensation Limit:	Increase of 2.75% per year from the valuation date.

Salary Increases:

The annual rate of compensation increase includes:

- Inflation at 2.75%, plus
- "Across the board" salary increases of 0.50% per year, plus
- The following merit and promotion increases:

Years of Service	Rate (%)	
	General	Safety
Less than 1	12.00	13.00
1 – 2	7.00	8.00
2 – 3	5.25	5.75
3 – 4	3.75	4.75
4 – 5	2.75	2.75
5 – 6	2.25	2.00
6 – 7	1.75	1.75
7 – 8	1.50	1.50
8 – 9	1.40	1.40
9 – 10	1.30	1.30
10 – 11	1.20	1.25
11 – 12	1.10	1.20
12 – 13	1.00	1.15
13 – 14	0.90	1.10
14 – 15	0.80	1.05
15 – 16	0.75	1.00
16 – 17	0.70	1.00
17 – 18	0.65	1.00
18 – 19	0.60	1.00
19 – 20	0.55	1.00
20 & Over	0.50	1.00

Demographic Assumptions

Post-Retirement Mortality Rates:	*Healthy* • **General Members:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2018. • **Safety Members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) increased by 5% for males and unadjusted for females, projected generationally with the two-dimensional mortality improvement scale MP-2018. *Disabled* • **General Members:** Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) increased by 5% for males and unadjusted for females, projected generationally with the two-dimensional mortality improvement scale MP-2018. • **Safety Members:** Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) increased by 5% for males and unadjusted for females, projected generationally with the two-dimensional mortality improvement scale MP-2018. *Beneficiary* • **All Beneficiaries:** Pub-2010 Contingent Survivor Amount-Weighted Above-Median Mortality Table (separate tables for males and females) increased by 5% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2018. The Pub-2010 mortality tables and adjustments as shown above reasonably reflect the mortality experience as of the measurement date. These mortality tables were adjusted to future years using the generational projection to reflect future mortality improvement between the measurement date and those years.

Pre-Retirement Mortality Rates:

- **General Members:** Pub-2010 General Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2018.
- **Safety Members:** Pub-2010 Safety Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2018.

	Rate (%)			
	General		Safety	
Age	Male	Female	Male	Female
20	0.04	0.01	0.04	0.02
25	0.02	0.01	0.03	0.02
30	0.03	0.01	0.04	0.02
35	0.04	0.02	0.04	0.03
40	0.06	0.03	0.05	0.04
45	0.09	0.05	0.07	0.06
50	0.13	0.08	0.10	0.08
55	0.19	0.11	0.15	0.11
60	0.28	0.17	0.23	0.14
65	0.41	0.27	0.35	0.20
70	0.61	0.44	0.66	0.39

Note that generational projections beyond the base year (2010) are not reflected in the above mortality rates.

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

Mortality Rates for Member Contributions:

- **General Members:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected 30 years with the two-dimensional mortality improvement scale MP-2018, weighted 30% male and 70% female.
- **Safety Members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) increased by 5% for males and unadjusted for females, projected 30 years with the two-dimensional mortality improvement scale MP-2018, weighted 85% male and 15% female.

Disability Incidence:

Age	Rate (%) General Tier 1 and Tier 4	General Tier 3 and Tier 5	Safety
20	0.01	0.01	0.02
25	0.02	0.02	0.16
30	0.04	0.03	0.32
35	0.08	0.05	0.46
40	0.22	0.08	0.56
45	0.36	0.11	0.90
50	0.52	0.13	2.54
55	0.60	0.16	3.80
60	0.60	0.22	4.30
65	0.60	0.25	4.50
70	0.60	0.25	4.50

60% of General Tier 1 and Tier 4 disabilities are assumed to be service connected disabilities. The other 40% are assumed to be non-service connected disabilities.

30% of General Tier 3 and Tier 5 disabilities are assumed to be service connected disabilities. The other 70% are assumed to be non-service connected disabilities.

100% of Safety disabilities are assumed to be service connected disabilities.

Termination:

Years of Service	Rate (%) General	Safety
Less than 1	14.00	12.50
1 – 2	9.50	10.00
2 – 3	9.25	8.25
3 – 4	6.50	5.75
4 – 5	5.25	5.00
5 – 6	5.00	4.25
6 – 7	4.50	3.50
7 – 8	4.25	3.25
8 – 9	3.75	3.00
9 – 10	3.50	2.50
10 – 11	3.25	2.25
11 – 12	3.00	2.10
12 – 13	2.75	2.00
13 – 14	2.50	1.90
14 – 15	2.50	1.80
15 – 16	2.25	1.70
16 – 17	2.25	1.60
17 – 18	2.00	1.50
18 – 19	2.00	1.25
19 – 20	1.75	1.00
20 & Over	1.25	0.75

The member is assumed to receive the greater of the member's contribution balance or a deferred retirement benefit.

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

Retirement Rates – General:

Age	Rate (%)					
	Tier 1 Enhanced		Tier 3 Enhanced			
	Less Than 30 Years of Service	Over 30 Years of Service	Less Than 30 Years of Service	Over 30 Years of Service	Tier 1 Non-Enhanced	PEPRA Tier 4 and Tier 5
50	5.00	9.00	4.00	7.20	3.00	0.00
51	4.00	7.20	3.00	5.40	3.00	0.00
52	4.00	7.20	3.00	5.40	3.00	2.00
53	4.00	7.20	4.00	7.20	3.00	3.00
54	12.00	21.60	6.00	10.80	3.00	3.00
55	15.00	27.00	8.00	14.40	10.00	5.00
56	17.00	30.60	8.00	9.60	10.00	5.00
57	17.00	30.60	9.00	10.80	10.00	6.00
58	17.00	30.60	10.00	12.00	10.00	6.00
59	22.00	26.40	12.00	14.40	10.00	8.00
60	25.00	30.00	13.00	15.60	25.00	8.00
61	30.00	36.00	18.00	21.60	15.00	12.00
62	30.00	36.00	22.00	26.40	40.00	18.00
63	25.00	30.00	22.00	26.40	35.00	18.00
64	25.00	30.00	25.00	30.00	30.00	20.00
65	35.00	35.00	32.00	32.00	40.00	25.00
66	40.00	40.00	32.00	32.00	35.00	25.00
67	40.00	40.00	30.00	30.00	35.00	25.00
68	40.00	40.00	30.00	30.00	35.00	25.00
69	40.00	40.00	30.00	30.00	35.00	25.00
70	35.00	35.00	35.00	35.00	40.00	40.00
71	35.00	35.00	35.00	35.00	40.00	40.00
72	35.00	35.00	35.00	35.00	40.00	40.00
73	35.00	35.00	35.00	35.00	50.00	40.00
74	35.00	35.00	35.00	35.00	50.00	40.00
75	100.00	100.00	100.00	100.00	100.00	100.00

Retirement Rates – Safety:

Age	Rate (%) Tier A Enhanced: Less Than 30 Years of Service	Tier A Enhanced: Over 30 Years of Service	Tier C Enhanced	Tier A Non-Enhanced and PEPRA Tier D and Tier E
45	7.00	8.75	2.00	0.00
46	3.00	3.75	1.00	0.00
47	10.00	12.50	4.00	0.00
48	10.00	12.50	4.00	0.00
49	25.00	31.25	12.00	0.00
50	25.00	31.25	18.00	5.00
51	25.00	31.25	18.00	4.00
52	18.00	22.50	15.00	4.00
53	18.00	22.50	15.00	5.00
54	18.00	22.50	15.00	6.00
55	20.00	30.00	18.00	10.00
56	20.00	30.00	15.00	10.00
57	22.00	33.00	15.00	18.00
58	22.00	33.00	25.00	18.00
59	22.00	33.00	25.00	18.00
60	25.00	37.50	25.00	18.00
61	25.00	37.50	25.00	20.00
62	25.00	37.50	25.00	20.00
63	30.00	45.00	30.00	20.00
64	40.00	60.00	35.00	25.00
65	100.00	100.00	100.00	100.00

Retirement Age and Benefit for Deferred Vested Members

For current and future deferred vested members, retirement age assumptions are as follows:

General: 59

Safety with Reciprocity: 53

Safety without Reciprocity: 50

40% of future General and 70% of future Safety deferred vested members are assumed to continue to work for a reciprocal employer. For reciprocals, 3.75% and 4.25% compensation increases are assumed per annum for General and Safety, respectively.

Future Benefit Accruals:

1.0 year of service per year for full-time employees. Continuation of current partial service accrual for part-time employees.

Unknown Data for Members:

Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.

Definition of Active Member:

All active members of CCCERA as of the valuation date.

Form of Payment:

All active and inactive members are assumed to elect the unmodified option at retirement. There is no explicit assumption for children's benefits.

Percent Married:	For all active and inactive members, 65% of male members and 50% of female members are assumed to be married at pre-retirement death or retirement.
Age and Gender of Spouse:	For all active and inactive members, male members are assumed to have a female spouse who is 3 years younger than the member and female members are assumed to have a male spouse who is 2 years older than the member.
Offsets by Other Plans of the Employer for Disability Benefits:	The Plan requires members who retire because of disability from General Tier 3 and General PEPRA Tier 5 to offset the Plan's disability benefits with other Plans of the employer. We have not assumed any offsets in this valuation.
Leave Cashout Assumptions:	The following assumptions for leave cashouts as a percentage of final average pay are used: *General Tiers 1, 2 and 3 Safety Tiers A and C* Cost Group 1: 1.00% Cost Group 2: 0.50% for Tier 2; 0.75% for Tier 3 Cost Group 3: 4.75% Cost Group 4: 0.50% Cost Group 5: 1.25% Cost Group 6: 0.25% Cost Group 7: 0.75% Cost Group 8: 0.50% Cost Group 9: 0.00% Cost Group 10: 0.50% Cost Group 11: 2.50% Cost Group 12: 2.00% Cost Group 13: 0.50% *General PEPRA Tiers 4 and 5 Safety PEPRA Tiers D and E* None
Service from Accumulated Sick Leave Conversion:	The following assumptions for additional service converted from accumulated sick leave as a percentage of service at retirement are used: *Service Retirements:* General: 1.10% Safety: 1.80% *Disability Retirements:* General: 0.06% Safety: 1.20% Pursuant to Section 31641.01, the cost of this benefit for the non-PEPRA tiers will be charged only to employers and will not affect member contribution rates.

Appendix B: Proposed Actuarial Assumptions

Economic Assumptions

Net Investment Return:	6.75%, net of investment expenses.
Administrative Expenses:	Actual administrative expenses as a percentage of payroll are allocated to both the employer and the member based on normal cost (before expenses) for the employer and member. This assumption changes each year based on the actual administrative expenses and actual payroll. The administrative expense load was 1.14% of payroll based on the December 31, 2020 actuarial valuation.
Employee Contribution Crediting Rate:	6.75%, compounded semi-annually.
Consumer Price Index:	Increases of 2.75% per year. Benefits for General Tier 1, Tier 3 (non-disability), Tier 4 and Tier 5 (non-disability) and Safety Tier A and Tier D are subject to a 3.00% maximum COLA increase due to CPI per year (valued as a 2.75% increase). Benefits for General Tier 2, Tier 3 (disability) and Tier 5 (disability) are subject to a 4.00% maximum change per year (valued as a 2.75% increase). Benefits for General Tier 4 and Tier 5 members covered under certain memoranda of understanding and Safety Tier C and Tier E are subject to a 2.00% maximum change per year (valued as a 2.00% increase). For members that have COLA banks, they are reflected in projected future COLAs. The actual COLA granted by CCCERA on April 1, 2021 has been reflected for non-active members in the December 31, 2020 valuation.
Payroll Growth:	Inflation of 2.50% per year plus “across the board” real salary increases of 0.50% per year, used to amortize the Unfunded Actuarial Accrued Liability as a level percentage of payroll.
Increases in Internal Revenue Code Section 401(a)(17) Compensation Limit:	Increase of 2.50% per year from the valuation date.
Increase in Section 7522.10 Compensation Limit:	Increase of 2.50% per year from the valuation date.

Salary Increases:

The annual rate of compensation increase includes:

- Inflation at 2.50%, plus
- "Across the board" salary increases of 0.50% per year, plus
- The following merit and promotion increases:

Years of Service	Rate (%)	
	General	Safety
Less than 1	11.00	12.00
1 – 2	6.50	8.50
2 – 3	4.75	5.50
3 – 4	3.50	5.00
4 – 5	2.50	4.00
5 – 6	2.00	3.00
6 – 7	1.75	2.25
7 – 8	1.65	1.75
8 – 9	1.45	1.50
9 – 10	1.35	1.45
10 – 11	1.30	1.40
11 – 12	1.10	1.35
12 – 13	1.00	1.30
13 – 14	0.90	1.25
14 – 15	0.80	1.25
15 – 16	0.75	1.25
16 – 17	0.70	1.25
17 – 18	0.65	1.25
18 – 19	0.60	1.25
19 – 20	0.55	1.25
20 & Over	0.50	1.00

Demographic Assumptions

Post-Retirement Mortality Rates:	*Healthy* • **General Members:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021. • **Safety Members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) increased by 5% for males and decreased by 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021. *Disabled* • **General Members:** Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) increased by 5% for males and unadjusted for females, projected generationally with the two-dimensional mortality improvement scale MP-2021. • **Safety Members:** Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) increased by 5% for males and unadjusted for females, projected generationally with the two-dimensional mortality improvement scale MP-2021. *Beneficiary* • **Beneficiaries not currently in Pay Status:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021. • **Beneficiaries in Pay Status:** Pub-2010 Contingent Survivor Amount-Weighted Above-Median Mortality Table (separate tables for males and females) increased by 5% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2021. The Pub-2010 mortality tables and adjustments as shown above reasonably reflect the mortality experience as of the measurement date. These mortality tables were adjusted to future years using the generational projection to reflect future mortality improvement between the measurement date and those years.

Pre-Retirement Mortality Rates:

- **General Members:** Pub-2010 General Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Safety Members:** Pub-2010 Safety Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021.

	Rate (%)			
	General		Safety	
Age	Male	Female	Male	Female
20	0.04	0.01	0.04	0.02
25	0.02	0.01	0.03	0.02
30	0.03	0.01	0.04	0.02
35	0.04	0.02	0.04	0.03
40	0.06	0.03	0.05	0.04
45	0.09	0.05	0.07	0.06
50	0.13	0.08	0.10	0.08
55	0.19	0.11	0.15	0.11
60	0.28	0.17	0.23	0.14
65	0.41	0.27	0.35	0.20
70	0.61	0.44	0.66	0.39

Note that generational projections beyond the base year (2010) are not reflected in the above mortality rates.

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

Mortality Rates for Member Contributions:

- **General Members:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected 30 years with the two-dimensional mortality improvement scale MP-2021, weighted 30% male and 70% female.
- **Safety Members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) increased by 5% for males and decreased by 5% for females, projected 30 years with the two-dimensional mortality improvement scale MP-2021, weighted 85% male and 15% female.

Disability Incidence:

Age	Rate (%) General Tier 1 and Tier 4	General Tier 3 and Tier 5	Safety
20	0.01	0.01	0.06
25	0.02	0.02	0.16
30	0.04	0.03	0.32
35	0.08	0.05	0.46
40	0.22	0.07	0.56
45	0.36	0.09	0.96
50	0.52	0.12	2.88
55	0.60	0.16	4.00
60	0.60	0.18	4.30
65	0.60	0.18	4.50
70	0.60	0.18	4.50

65% of General Tier 1 and Tier 4 disabilities are assumed to be service connected disabilities. The other 35% are assumed to be non-service connected disabilities.

25% of General Tier 3 and Tier 5 disabilities are assumed to be service connected disabilities. The other 75% are assumed to be non-service connected disabilities.

100% of Safety disabilities are assumed to be service connected disabilities.

Termination:

Years of Service	Rate (%) General	Safety
Less than 1	14.00	11.00
1 – 2	9.50	9.00
2 – 3	9.00	7.00
3 – 4	6.25	5.00
4 – 5	6.25	4.00
5 – 6	5.00	3.50
6 – 7	4.50	3.00
7 – 8	4.00	2.50
8 – 9	3.75	2.50
9 – 10	3.75	2.00
10 – 11	3.50	2.00
11 – 12	3.25	2.00
12 – 13	2.75	2.00
13 – 14	2.50	1.80
14 – 15	2.50	1.60
15 – 16	2.25	1.50
16 – 17	2.25	1.40
17 – 18	2.00	1.30
18 – 19	2.00	1.20
19 – 20	1.50	1.00
20 & Over	1.50	0.50

The member is assumed to receive the greater of the member's contribution balance or a deferred retirement benefit.

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

Retirement Rates – General:

Age	Rate (%)					
	Tier 1 Enhanced		Tier 3 Enhanced			
	Less Than 30 Years of Service	Over 30 Years of Service	Less Than 30 Years of Service	Over 30 Years of Service	Tier 1 Non-Enhanced	PEPRA Tier 4 and Tier 5
49	0.00	0.00	0.00	25.00	0.00	0.00
50	4.00	10.00	4.00	10.00	3.00	0.00
51	4.00	10.00	3.00	5.00	3.00	0.00
52	4.00	10.00	3.00	5.00	3.00	2.00
53	4.00	10.00	4.00	5.00	3.00	3.00
54	10.00	16.00	6.00	11.00	3.00	3.00
55	15.00	24.00	8.00	15.00	10.00	4.00
56	15.00	24.00	8.00	10.00	10.00	5.00
57	15.00	24.00	8.00	10.00	10.00	6.00
58	15.00	22.00	9.00	15.00	10.00	6.00
59	18.00	22.00	10.00	15.00	10.00	8.00
60	20.00	20.00	12.00	15.00	25.00	8.00
61	20.00	20.00	16.00	20.00	15.00	12.00
62	25.00	30.00	20.00	25.00	40.00	15.00
63	25.00	30.00	20.00	25.00	35.00	17.00
64	25.00	30.00	25.00	28.00	30.00	20.00
65	35.00	35.00	30.00	32.00	40.00	25.00
66	40.00	40.00	32.00	32.00	35.00	25.00
67	40.00	40.00	30.00	30.00	35.00	25.00
68	40.00	40.00	30.00	30.00	35.00	25.00
69	40.00	40.00	30.00	30.00	35.00	25.00
70	40.00	40.00	35.00	35.00	40.00	35.00
71	35.00	35.00	35.00	35.00	40.00	35.00
72	35.00	35.00	35.00	35.00	40.00	35.00
73	35.00	35.00	35.00	35.00	50.00	35.00
74	35.00	35.00	35.00	35.00	50.00	35.00
75	100.00	100.00	100.00	100.00	100.00	100.00

Retirement Rates – Safety:

Age	Rate (%)			
	Tier A Enhanced			
	Less Than 30 Years of Service	Over 30 Years of Service	Tier C Enhanced	Tier A Non-Enhanced and PEPRA Tier D and Tier E
45	7.00	7.00	2.00	0.00
46	5.00	5.00	1.00	0.00
47	7.00	7.00	4.00	0.00
48	10.00	30.00	4.00	0.00
49	22.00	30.00	12.00	0.00
50	22.00	30.00	20.00	5.00
51	22.00	22.00	18.00	4.00
52	16.00	20.00	15.00	4.00
53	16.00	22.00	15.00	5.00
54	16.00	24.00	18.00	6.00
55	16.00	30.00	18.00	15.00
56	18.00	30.00	15.00	15.00
57	18.00	30.00	15.00	15.00
58	20.00	35.00	25.00	15.00
59	20.00	35.00	25.00	20.00
60	20.00	35.00	25.00	20.00
61	20.00	35.00	25.00	20.00
62	20.00	35.00	25.00	20.00
63	25.00	35.00	30.00	20.00
64	35.00	35.00	35.00	25.00
65	100.00	100.00	100.00	100.00

Retirement Age and Benefit for Deferred Vested Members

For current and future deferred vested members, retirement age assumptions are as follows:

General: 60

Safety with Reciprocity: 53

Safety without Reciprocity: 51

40% of future General and 70% of future Safety deferred vested members are assumed to continue to work for a reciprocal employer. For reciprocals, 3.50% and 4.00% compensation increases are assumed per annum for General and Safety, respectively.

Future Benefit Accruals:

1.0 year of service per year for full-time employees. Continuation of current partial service accrual for part-time employees.

Unknown Data for Members:

Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.

Definition of Active Member:

All active members of CCCERA as of the valuation date.

Form of Payment:

All active and inactive members are assumed to elect the unmodified option at retirement. There is no explicit assumption for children's benefits.

Percent Married:	For all active and inactive members, 65% of male members and 50% of female members are assumed to be married at pre-retirement death or retirement.
Age and Gender of Spouse:	For all active and inactive members, male members are assumed to have a female spouse who is 3 years younger than the member and female members are assumed to have a male spouse who is 2 years older than the member.
Offsets by Other Plans of the Employer for Disability Benefits:	The Plan requires members who retire because of disability from General Tier 3 and General PEPRA Tier 5 to offset the Plan's disability benefits with other Plans of the employer. We have not assumed any offsets in this valuation.
Leave Cashout Assumptions:	The following assumptions for leave cashouts as a percentage of final average pay are used: *General Tiers 1, 2 and 3 Safety Tiers A and C* Cost Group 1: 1.00% Cost Group 2: 0.50% for Tier 2; 0.75% for Tier 3 Cost Group 3: 5.25% Cost Group 4: 1.00% Cost Group 5: 1.00% Cost Group 6: 0.00% Cost Group 7: 0.50% Cost Group 8: 0.25% Cost Group 9: 0.00% Cost Group 10: 0.25% Cost Group 11: 3.00% Cost Group 12: 1.75% Cost Group 13: 0.25% *General PEPRA Tiers 4 and 5 Safety PEPRA Tiers D and E* None
Service from Accumulated Sick Leave Conversion:	The following assumptions for additional service converted from accumulated sick leave as a percentage of service at retirement are used: *Service Retirements:* General: 1.00% Safety: 1.70% *Disability Retirements:* General: 0.06% Safety: 1.00% Pursuant to Section 31641.01, the cost of this benefit for the non-PEPRA tiers will be charged only to employers and will not affect member contribution rates.

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Contra Costa County Employees' Retirement Association

Meeting Date
04/13/2022
Agenda Item
#15

MEMORANDUM

Date: April 13, 2022

To: CCCERA Board of Retirement

From: Karen Levy, General Counsel

Subject: Consider and take possible action to cause an election to be held to fill the vacancy in the alternate seventh safety member seat.

Update

The alternate seventh (safety) member seat on the Retirement Board is vacant as of April 1, 2022. Pursuant to the County Employee Retirement Law of 1937 ("CERL"), in the event of a vacancy in the alternate seventh (safety) member seat, the Retirement Board "shall cause an election to fill the vacancy to be held at the earliest possible date." (Govt. Code §31523.) The candidates for the position are limited to the safety group not represented by the incumbent seventh board member. The incumbent seventh (safety) board member seat is from the deputy sheriffs' group (Govt. Code § 31470.2), therefore, the candidates for the vacant alternate seventh (safety) board member seat are limited to members from the, firefighter group (Govt. Code § 31470.4). In the event there are no candidates from the firefighter group, then candidates may be from a safety group other than sheriffs and firefighters. In the event only one candidate has been nominated for election to the alternate seventh (safety) board member seat, no election will be held and a unanimous ballot will be cast in favor of the single candidate to fill the position, in accordance with Govt. Code § 31523(c). The successful candidate for the alternate seventh (safety) board member seat would serve for the duration of the term, i.e., until June 30, 2023.

Recommendation

Consider and take possible action to cause an election to be held at the earliest possible date to fill the vacancy in the alternate seventh safety member seat, in accordance with Government Code Section 31523.

Meeting Date
04/13/2022
Agenda Item
#16

CCCERA
Contra Costa County Employees' Retirement Association

MEMORANDUM

Date: April 13, 2022

To: CCCERA Board of Retirement

From: Karen Levy, General Counsel

Subject: Continuing teleconference meetings under Government Code section 54953 (e)

Background

All meetings of the Board of Retirement are open to the general public, as required by the Ralph M. Brown Act, California Government Code sections 54950 *et seq*. Section 54953 (e) of the Brown Act authorizes conducting public meetings via teleconferencing during a state of emergency. The Board has approved conducting its meetings via teleconferencing under Section 54953 (e), finding that in-person meetings of the Board are open to the general public and would risk the health or safety of the public, staff, outside consultants and trustees attending public meetings, in light of the COVID-19 pandemic and related state of emergency.

Under the law, if the Board wishes to continue using these special teleconferencing rules it must reconsider the circumstances of the state of emergency and make certain findings.

Proclaimed State of Emergency and Health and Safety Guidance

Currently, the COVID-19 state of emergency proclaimed by the Governor is in effect. The Contra Costa County Health Officer has advised that the highly transmissible Omicron and BA.2 variants of COVID 19 are present in the County, and COVID 19 test positivity and hospitalizations remain at a high level. On March 1, 2022, the County Health Officer again issued recommendations for safely holding public meetings that included recommended measures to promote social distancing. (See Attachment A, Health Officer's Recommendations).

The Health Officer has recommended as follows: "Online meetings (i.e. teleconferencing meetings) are strongly recommended as those meetings present the lowest risk of transmission of SARS-CoV-2, the virus that causes COVID-19."

Recommendation
Consider and take possible action to authorize the Board and its committee(s) to continue to conduct teleconference meetings for the next 30 days under Government Code section 54953 (e) and make the following findings:

1. The Board has reconsidered the circumstances of the statewide state of emergency proclaimed by the Governor on March 4, 2020 and the countywide local emergency proclaimed by the Governor on March 10, 2020.

2. The following circumstances currently exist:
    a. The statewide state of emergency and the countywide local emergency continue to directly impact the ability of the Board and its committee(s) to meet safely in person at meetings that are open to the general public because of the COVID-19 pandemic.
    b. The County Health Officer's recommendations for safely holding public meetings, which recommend virtual meetings and other measures to promote social distancing, are still in effect.

ANNA M. ROTH, RN, MS, MPH
HEALTH SERVICES DIRECTOR
ORI TZVIELI, MD
HEALTH OFFICER

CONTRA COSTA
HEALTH SERVICES

OFFICE OF THE DIRECTOR
1220 Morello, Suite 200
Martinez, CA 94553
Ph (925) 957-5403
Fax (925) 957-2651

RECOMMENDATIONS FOR SAFELY HOLDING PUBLIC MEETINGS

Each local government agency is authorized to determine whether to hold public meetings in person, on-line (teleconferencing only), or via a combination of methods. The following are recommendations from the Contra Costa County Health Officer to minimize the risk of COVID 19 transmission during a public meeting.

1. Online meetings (i.e. teleconferencing meetings) are strongly recommended as these meetings present the lowest risk of transmission of SARS CoV-2, the virus that causes COVID 19. This is particularly important in light of the current community prevalence rate as of March 1, 2022. Our current trends as of March 1, 2022 in Covid-19 case rate, Covid-19 test positivity, and Covid-19 hospitalizations are decreasing, but cases rates remain high with the Omicron variant of Covid-19 being the predominant variant identified, the impact of which on the spread of Covid-19 has shown to dramatically increase COVID-19 transmission.
2. If a local agency determines to hold in-person meetings, offering the public the opportunity to attend via a call-in option or an internet-based service option is recommended, when possible, to give those at higher risk of and/or higher concern about COVID-19 an alternative to participating in person.
3. A written safety protocol should be developed and followed. It is recommended that the protocol require social distancing – i.e., six feet of separation between attendees – and face masking of all attendees.
4. Seating arrangements should allow for staff and members of the public to easily maintain at least six-foot distance from one another at all practicable times.
5. Consider holding public meetings outdoors. Increasing scientific consensus is that outdoor airflow reduces the risk of COVID-19 transmission compared to indoor spaces. Hosting events outdoors also may make it easier to space staff and members of the public at least 6 feet apart.
6. Current evidence is unclear as to the added benefit of temperature checks in addition to symptom checks. We encourage focus on symptom checks as they may screen out individuals with other Covid-19 symptoms besides fever and help reinforce the message to not go out in public if you are not feeling well.
7. Consider a voluntary attendance sheet with names and contact information to assist in contact tracing of any cases linked to a public meeting.

Revised 3-1-2022

Sefanit Mekuria

Sefanit Mekuria, MD, MPH
Deputy Health Officer, Contra Costa County

Providing insight. Fostering oversight.

Meeting Date
04/13/2022
Agenda Item
#17

SACRS VOTING PROXY FORM

The following are authorized by the _____ County Retirement Board to vote on behalf of the County Retirement System at the upcoming SACRS Conference

(If you have more than one alternate, please attach the list of alternates in priority order):

_____ Voting Delegate

_____ Alternate Voting Delegate

These delegates were approved by the Retirement Board on _____ / _____ / _____.

The person authorized to fill out this form and submit electronically on behalf of the Retirement Board:

Signature: _____

Print Name: _____

Position: _____

Date: _____

Please send your system's voting proxy by April 28, 2022 to Sulema H. Peterson, SACRS Executive Director at Sulema@sacrs.org.

Meeting Date
04/13/2022
Agenda Item
#18

March 15, 2022

To: SACRS Trustees & SACRS Administrators/CEO's
From: Dan McAllister, SACRS Immediate Past President, Nominating Committee Chair
SACRS Nominating Committee
Re: SACRS Board of Director Elections 2022-2023 Elections – Final Ballot

SACRS BOD 2022-2023 election process began January 2022. Please provide the final ballot and voting instructions to your Board of Trustees and Voting Delegates.

DEADLINE	DESCRIPTION
March 1, 2022	Any regular member may submit nominations for the election of a Director to the Nominating Committee, provided the Nominating Committee receives those nominations no later than noon on March 1 of each calendar year regardless of whether March 1 is a Business Day. Each candidate may run for only one office. Write-in candidates for the final ballot, and nominations from the floor on the day of the election, shall not be accepted.
March 25, 2022	The Nominating Committee will report a final ballot to each regular member County Retirement System prior to March 25
May 13, 2022	Nomination Committee to conduct elections during the SACRS Business Meeting at the Spring Conference, May 10-13, 2022
May 13, 2022	Board of Directors take office for 1 year (until Spring 2023 Elections)

Per SACRS Bylaws, Article VIII, Section 1. Board of Director and Section 2. Elections of Directors:

Section 1. Board of Directors. The Board shall consist of the officers of SACRS as described in Article VI, Section 1, the immediate Past President, and two (2) regular members

> ***A. Immediate Past President.*** *The immediate Past President, while he or she is a regular member of SACRS, shall also be a member of the Board. In the event the immediate Past President is unable to serve on the Board, the most recent Past President who qualifies shall serve as a member of the Board.*
> ***B. Two (2) Regular Members****. Two (2) regular members shall also be members of the Board with full voting rights.*

Section 2. Elections of Directors*. Any regular member may submit nominations for the election of a Director to the Nominating Committee, provided the Nominating Committee receives those nominations no later than noon on March 1 of each calendar year regardless of whether March 1 is a Business Day. Each candidate may run for only one office. Write-in candidates for the final ballot, and nominations from the floor on the day of the election, shall not be accepted.*

The Nominating Committee will report its suggested slate, along with a list of the names of all members who had been nominated, to each regular member County Retirement System prior to March 25. The Administrator of each regular member County Retirement System shall be responsible for communicating the Nominating Committee's suggested slate to each trustee and placing the election of SACRS Directors on his or her board agenda. The Administrator shall acknowledge the completion of these responsibilities with the Nominating Committee.

Director elections shall take place during the first regular meeting of each calendar year. The election shall be conducted by an open roll call vote, and shall conform to Article V, Sections 6 and 7 of these Bylaws.

Newly elected Directors shall assume their duties at the conclusion of the meeting at which they are elected, with the exception of the office of Treasurer. The incumbent Treasurer shall co-serve with the newly elected Treasurer through the completion of the current fiscal year.

The elections will be held at the SACRS Spring Conference on Friday, May 13, 2022 during the scheduled business meeting at the Omni Rancho Las Palmas Hotel and Resort in Rancho Mirage, CA.

SACRS Nominating Committee Recommended Slate:

- President – Vivian Gray, Los Angeles CERA
- Vice President – David MacDonald, Contra Costa CERA
- Treasurer – Jordan Kaufman, Kern CERA
- Secretary – Adele Tagaloa, Orange CERS
- Regular Member – Vere Williams, San Bernardino CERA
- Regular Member – David Gilmore, San Diego CERA

No other letters of intent or submissions were received.

Please prepare your voting delegate to have the ability to vote by the recommended ballot and by each position separately.

If you have any questions, please contact me at Dan McAllister, Dan.McAllister@sdcounty.ca.gov or (619) 531-5231.

Thank you for your prompt attention to this timely matter.

Sincerely,

Dan McAllister

Dan McAllister, San Diego CERA Trustee
SACRS Nominating Committee Chair

CC: SACRS Board of Directors
SACRS Nominating Committee Members
Sulema H. Peterson, SACRS Executive Director

Attached: Candidate submissions

SACRS Submission for President

VIVIAN H. GRAY

300 N. LAKE AVENUE, SUITE 820 ~PASADENA, CA 91101 ~ VGRAY@LACERA.COM

February 23, 2022 **VIA EMAIL**

SACRS Nominating Committee
Mr. Dan McAllister, Chair

Dear Mr. McAllister and Members of the Nominating Committee:

I would like to express my desire to be considered for SACRS' President for 2022/2023.

I have been humbly honored to serve as SACRS President for two years. 2020 was a very difficult year for everyone. SACRS was no exception. 2021 was difficult also as we had to get back on our feet, stand tall and continue with our mission in spite of a "new normal" we faced.

My focus in 2021 for SACRS expanded two original concepts of "Relevance and Sustainability" to "Recovery, Relevance and Sustainability". Within these three concepts, SACRS was able to begin 'recovery' from the pandemic while adhering to health restrictions; remain 'relevant' to the pension community through innovative approaches to education and 'sustainable' by building on technological advances to return to live conference for our members yet also continue to provide quality education through alternative mediums.

Most notably SACRS accomplishments for 2020 and 2021 include, but are not limited to the following:

- Continued communications with 37 Act systems and administrators through SACRS' website and SACRS Magazine
- Presentation of SACRS 2020 conferences in a virtual format without sacrificing quality of speakers, presentations or interactions among trustees, affiliates and staff and "in-person" return in 2021 and Spring 2022.
- Presenting the SACRS Berkeley Education Program in a virtual format with on-demand replays of the classes presented
- Maintaining an active role in the legislative process as it affected county retirement systems

In spite of the pandemic and post pandemic challenges, I am very proud of the work SACRS' Board has accomplished under my leadership. We continue to be productive while recovering and remaining relevant and sustainable for the SACRS membership.

I would be honored to serve another term as President of SACRS. Thank you in advance for your consideration of my candidacy for re-election.

Sincerely,

Vivian Gray

cc: Sulema Peterson, SACRS

SACRS Nomination Submission Form
SACRS Board of Directors Elections 2022-2023

All interested candidates must complete this form and submit along with a letter of intent. **Both the form and the letter of intent must be submitted no later than March 1, 2022.** Please submit to the Nominating Committee Chair at Dan.McAllister@sdcounty.ca.gov AND to SACRS at sulema@sacrs.org. If you have any questions, please feel free to contact Sulema Peterson at SACRS at (916) 701-5158.

Name of Candidate	Name: Vivian H. Gray
Candidate Contact Information (Please include – Phone Number, Email Address and Mailing Address)	Mailing Address: 300 N. Lake Ave., Ste. 820, Pasadena CA 91101 Email Address: viviangray@aol.com, vgray@lacera.com Phone: 213.440.0142
Name of Retirement System Candidate Currently Serves On	System Name: Los Angeles County Employees Retirement Assoc. (LACERA)
List Your Current Position on Retirement Board (Chair, Alternate, Retiree, General Elected, Etc)	○ Chair ○ Alternate ☒ General Elected ○ Retiree ○ Other _____
Applying for SACRS Board of Directors Position (select only one)	☒ President ○ Vice President ○ Treasurer ○ Secretary ○ Regular Member
Brief Bio	2021 President, SACRS 2019 Vice Chair, SACRS President 2017 Chair, SACRS Bylaws Committee Elected general member trustee since 2012 38 years of service to Los Angeles County 10 years in Law Enforcement 28 years as an attorney for Los Angeles County 6 years in private law practice Education/Pension Trustee Certificates - Bachelors of Arts: UCLA - JD: UWLA - New York Law School -Public Pension Trustee Fiduciary Program - Stanford Law School (CALAPRS) -Principles of Pension Management - Harvard Law School Program - Trustee Work Life - UC Berkeley (SACRS) - Modern Investment Theory & Practice for Retirement Systems - IFEBP -Trustee Master's Program - NCPERS Public Pension Funding Forum - National Assoc. of Corporate Directors (NACD) Board Leadership Fellow

SACRS Submission for Vice President

David J MacDonald, MD

255 Ramsgate Way
Vallejo, CA 94591
dmacdcccera@gmail.com
510-409-4458 (mobile)

February 11, 2022

SACRS Nominating Committee
Mr. Dan McAllister, Chair

Dear Mr. McAllister,

I would like to express my interest in running as Vice President for the SACRS' Board of Directors for the 2021/2022 year.

I was first elected to the SACRS board in 2020. I am also an elected trustee of the CCCERA Retirement Board (since 2016) and currently serve as CCCERA Board Vice Chair. I appreciate the level of responsibility entrusted to me in looking after our members' retirement plans. I understand the incredible value of a defined benefit plan for my coworkers and our retirees.

I have a long history of dedicated service to my coworkers and union members and I carry this spirit into my role as an elected trustee. My work with SACRS has meant for further education and inspiration from the SACRS organization via its conferences and programs. SACRS has enhanced my abilities to serve as an effective CCCERA trustee.

I desire to continue my service on the SACRS board. Doing so allows me to further promote, protect and build upon pension programs under CERL for county public employees statewide.

Thank you for your time and consideration.

Sincerely and Respectfully,

David J MacDonald, MD

David J MacDonald, MD

SACRS Nomination Submission Form
SACRS Board of Directors Elections 2021-2022

All interested candidates must complete this form and submit along with a letter of intent. **Both the form and the letter of intent must be submitted no later than March 1, 2022.** Please submit to the Nominating Committee Chair at Dan.McAllister@sdcounty.ca.gov AND to SACRS at sulema@sacrs.org. If you have any questions, please feel free to contact Sulema Peterson at SACRS at (916) 701-5158.

Name of Candidate	Name: David J. MacDonald, MD
Candidate Contact Information (Please include – Phone Number, Email Address and Mailing Address)	Mailing Address: 255 Ramsgate Way, Vallejo, CA 94591 Email Address: dmacdcccera@gmail.com Phone: 510-409-4458
Name of Retirement System Candidate Currently Serves On	System Name: CCCERA
List Your Current Position on Retirement Board (Chair, Alternate, Retiree, General Elected, Etc)	○ Chair ○ Alternate ○ **General Elected X** ○ Retiree ○ Other _____
Applying for SACRS Board of Directors Position (select only one)	○ President ○ **Vice President X** ○ Treasurer ○ Secretary ○ Regular Member
Brief Bio	* SACRS Board of Directors, Member – 2020-2021 & 2021-2022 * Vice Chair, CCCERA Board of Retirement * Elected general member trustee of CCCERA since 2016 * President, Physicians' and Dentists' of Contra Costa (PDOCC), since 2010 (Union for health care providers working at Contra Costa County). * 28 years serving on the PDOCC Executive Board, including many years as Vice President and President. * 31 years of service to Contra Costa County as a physician working in the Department of Health Services. * Education/Pension Trustee Certificates: - Bachelors of Science, Biology – UC Irvine - Doctor of Medicine – UC Irvine - UC Berkeley (SACRS) – Modern Investment Theory & Practice for Retirement Systems - Wharton Business School – Portfolio Concepts & Management - IFEBP – CAPPP program - CALAPRS Trustee Education – Principles of Pension Governance

SACRS Submission for Treasurer

Kern County Treasurer-Tax Collector

Jordan Kaufman
Treasurer and Tax Collector
Chase Nunneley
Assistant Treasurer and Tax Collector

February 9, 2022

Dan McAllister, Nominating Committee Chairman
State Association of County Retirement Systems

Re: Letter of interest for SACRS position of Treasurer of the Board of Directors

Dear Mr. McAllister and members of the Nominating Committee,

Thank you for the opportunity to express my interest in the position of Treasurer of the SACRS Board of Directors. I believe that I have the knowledge, experience and motivation to add value to the Board. I am in my second term as the elected Kern County Treasurer-Tax Collector, and I am a 17 year member of the Kern County Employees Retirement Association (KCERA) as a general elected, alternate, and statutory trustee. I have a deep background in public fund investment and retirement plan administration and I am or have been the Treasurer of many organizations and associations.

As the elected Treasurer-Tax Collector, I manage the County's $4.5 billion treasury pool, provide banking services to over 200 different county agencies and districts, and collect over $1.3 billion in local property taxes. I am also the Plan Administrator for the County's 457(b) deferred compensation plan with over $720 million in participant assets.

I am or have been the Treasurer of the following entities: County of Kern; California Association of County Treasurer's and Tax Collectors (CACTTC); United Way of Kern County; Boy Scouts of America Southern Sierra Council; California Statewide Communities Development Authority (CSCDA); and Kern County Management Council.

I have dedicated my career to public service and I am proud to serve the residents of Kern County and the employees of the County of Kern. I am interested in becoming more involved in pension and investment management on a larger scale and I feel that my knowledge and expertise outlined above would make me a good candidate for the Treasurer of the Board. I feel I could bring value to the board while at the same time expanding my knowledge base in pension management and administration.

Attached is my resume for your information. Thank you in advance for your consideration and feel free to call me if you have any questions at 661-204-1510.

Sincerely,

Jordan Kaufman

Jordan Kaufman
Kern County Treasurer-Tax Collector
Deferred Compensation Plan Administrator

Attachment
M:\Administration\SACRS\SACRS Board Letter of Interest.doc

1115 Truxtun Avenue * Bakersfield, CA 93301-4639 * (661) 868-3490 * 800-552-KERN
Fax: (661) 868-3409 * Email: TTC@KernCounty.com * www.kcttc.co.kern.ca.us

SACRS Nomination Submission Form
SACRS Board of Directors Elections 2022-2023

All interested candidates must complete this form and submit along with a letter of intent. **Both the form and the letter of intent must be submitted no later than March 1, 2022.** Please submit to the Nominating Committee Chair at Dan.McAllister@sdcounty.ca.gov AND to SACRS at sulema@sacrs.org. If you have any questions, please feel free to contact Sulema Peterson at SACRS at (916) 701-5158.

Name of Candidate	Name: Jordan Kaufman
Candidate Contact Information (Please include – Phone Number, Email Address and Mailing Address)	Mailing Address: 1115 Truxtun Avenue, 2nd floor Bakersfield, CA 93301 Email Address: jkaufman@kerncounty.com Phone: (661) 868-3454
Name of Retirement System Candidate Currently Serves On	System Name: Kern County Employees' Retirement Association
List Your Current Position on Retirement Board (Chair, Alternate, Retiree, General Elected, Etc)	○ Chair ○ Alternate ○ General Elected ○ Retiree ☒ Other Statutory
Applying for SACRS Board of Directors Position (select only one)	○ President ○ Vice President ☒ Treasurer ○ Secretary ○ Regular Member
Brief Bio	I am in my second term as the elected Kern County Treasurer-Tax Collector with fiduciary responsibility over the $4.5 billion Treasury Investment Pool and the responsibility of annually collecting over $1.3 billion in local property taxes. I am also the Plan Administrator for the $720 million deferred compensation plan for County employees. Prior to being elected, I became the assistant Treasurer-Tax Collector in 2006. Prior to 2006, I spent over a decade in the County Administrative Office where I performed budget and policy analysis and was involved in the issuance of various types of municipal bonds for the County. I am the Treasurer and past Chairman of the United Way of Kern County, Trustee and past Chairman of the Kern County Employees Retirement Association (KCERA), Commissioner on the California Statewide Communities Development Authority (CSCDA), Treasurer of the Boy Scouts of America Southern Sierra Council, and an Adjunct Professor at the California State University Bakersfield. I have a Bachelor of Science degree in Industrial Technology from Cal Poly San Luis Obispo. I live in Bakersfield with my beautiful wife Kristen and we have four children.

SACRS Submission for Secretary

ORANGE COUNTY OCERS
EMPLOYEES RETIREMENT SYSTEM

Serving the Active and Retired Members of:

CITY OF SAN JUAN CAPISTRANO

COUNTY OF ORANGE

ORANGE COUNTY CEMETERY DISTRICT

ORANGE COUNTY CHILDREN & FAMILIES COMMISSION

ORANGE COUNTY DEPARTMENT OF EDUCATION (CLOSED TO NEW MEMBERS)

ORANGE COUNTY EMPLOYEES RETIREMENT SYSTEM

ORANGE COUNTY FIRE AUTHORITY

ORANGE COUNTY IN-HOME SUPPORTIVE SERVICES PUBLIC AUTHORITY

ORANGE COUNTY LOCAL AGENCY FORMATION COMMISSION

ORANGE COUNTY PUBLIC LAW LIBRARY

ORANGE COUNTY SANITATION DISTRICT

ORANGE COUNTY TRANSPORTATION AUTHORITY

SUPERIOR COURT OF CALIFORNIA, COUNTY OF ORANGE

TRANSPORTATION CORRIDOR AGENCIES

UCI MEDICAL CENTER AND CAMPUS (CLOSED TO NEW MEMBERS)

February 23, 2022

By Mail and Electronic Mail [dan.mcallister@sdcounty.ca.gov]

Mr. Dan McAllister
SACRS Nominating Committee Chair
SACRS
840 Richards Blvd.
Sacramento, CA 95811

Re: NOMINATION FOR SACRS BOARD OF DIRECTORS ELECTION 2022-2023

Dear Mr. McAllister:

This letter supersedes the letter I sent to you earlier today.

As a regular member of SACRS, the Orange County Employees Retirement System (OCERS) is entitled, under the SACRS Bylaws, Article VIII, Section 2, to submit nominations for the election of directors for the SACRS Board of Directors.

On February 22, 2022, the OCERS Board of Retirement met and took action to nominate OCERS trustee, Adele Tagaloa, for the position of SECRETARY of the SACRS Board of Directors, and directed me to submit this nomination to the SACRS Nominating Committee.

Accordingly, please accept this letter as **OCERS' nomination of OCERS Trustee, Adele Tagaloa, for election to the position of SECRETARY of the SACRS Board of Directors at the 2022-2023 SACRS Board of Directors Election to take place on May 13, 2022.**

Please do not hesitate to contact me at (714) 558-6222 if you have any questions or require additional information.

Thank you.

Best regards,

Steve Delaney - Chief Executive Officer
cc: Sulema H. Peterson, SACRS Administrator

Adele Tagaloa

2223 East Wellington Ave, Suite 100, Santa Ana, CA 92804 | 714-349-9716 | atagaloa@ocers.org

February 24, 2022

Mr. Dan McAllister
SACRS Immediate Past President, Nominating Committee Chair
State Association of County Retirement Systems (SACRS)
840 Richards Blvd
Sacramento, CA 95811

Dear Mr. Dan McAllister:

Please accept this letter of my intent to run for SACRS Board of Directors for the office of Secretary.

My 15 years of leadership experience in the private and public sector makes me an exceptional candidate for SACRS Secretary. My experience serving (1) as an Executive Board member of my employee labor organization; (2) my employment by the Registrar of Voters to ensure accurate and transparent elections for 1.8 million registered Orange County voters; and most importantly (3) my service as a Trustee on the Orange County Employees Retirement System has made me uniquely qualified to serve on the SACRS Board of Directors.

My passion for democracy, organized labor, and accessibility education has been the cornerstone of my career and life. Since I have been elected to the OCERS Board of Retirement, my personal trustee education has been one of my main priorities. Although the last two years has proven to be a challenge for in-person education, I prioritized expanding my knowledge on pensions and legislation.

While attending SACRS Fall Conference in 2021, the level of professionalism and outstanding leadership solidified my desire to be more than a future attendee. In SACRS, I have found an organization that like me, understands the challenge and importance of pensions, education and duty for trustees in the CERL 37 Act Systems. I have shared too many people about the fantastic speakers and the subjects that reach beyond pensions at SACRS.

Using my leadership experience, it is my goal to continue to share all the benefits of SACRS to members, support leadership and to continue to make SACRS the premier pension organization in a changing world.

It would be an honor to serve on the SACRS Board of Directors as Secretary and truly appreciate your consideration.

Sincerely,

Adele Tagaloa
Trustee, General Member-Elected
Orange County Employees Retirement System (OCERS)

SACRS Nomination Submission Form
SACRS Board of Directors Elections 2022-2023

All interested candidates must complete this form and submit along with a letter of intent. **Both the form and the letter of intent must be submitted no later than March 1, 2022.** Please submit to the Nominating Committee Chair at Dan.McAllister@sdcounty.ca.gov AND to SACRS at sulema@sacrs.org. If you have any questions, please feel free to contact Sulema Peterson at SACRS at (916) 701-5158.

Name of Candidate	**Adele Tagaloa**
Candidate Contact Information (Please include – Phone Number, Email Address and Mailing Address)	Mailing Address: **2223 East Wellington Ave, Suite 100 Santa Ana, CA 92701** Email Address: **atagaloa@ocers.org adele.tagaloa@gmail.com** Phone: **(714) 349-9716**
Name of Retirement System Candidate Currently Serves On	System Name: **Orange County Employees Retirement System (OCERS)**
List Your Current Position on Retirement Board (Chair, Alternate, Retiree, General Elected, Etc)	○ Chair ○ Alternate ● General Elected ○ Retiree ○ Other _____
Applying for SACRS Board of Directors Position (select only one)	○ President ○ Vice President ○ Treasurer ● Secretary ○ Regular Member
Brief Bio	◆ **Member, SACRS Program and Bylaws Committee** ◆ **Elected General Member Trustee, OCERS, 2020 to present** 12 1/2 years of service to the County of Orange Proudly serving 1.8 million registered voters at the Registrar of Voters office ◆ **Chair, OCERS Disability Committee 2020 to present** ◆ **Vice- Chair, OCERS Investment Committee 2022 to present** ◆ **Member, OCERS Governance Committee member 2022 to present** ◆ **Union Steward, Orange County Employees Association (OCEA) 2012 to present** ◆ **Board of Directors, OCEA 2018 to present** ◆ **Executive Board of Directors - Secretary, OCEA 2020 to present** ◆ **Political Action Committee and Scholarship Committee member, OCEA** **Public Pension Trustee Certificates:** Public Pension Investment Management Program - UC Berkeley CALAPRS Principles of Pension Governance and Principles for Trustees Completed 190 hours of education, 2020 - present

SACRS Submission for General Board Member

February 28, 2022 VIA Email

Dan McAllister,
SACRS Immediate Past President/ Nominating Committee Chair
SACRS Nominating Committee

Dear Mr. Immediate Past President/Nominating Committee Chair McAllister,

Please accept this letter as my letter of intent to be a candidate to be re-elected to the position of Regular Member in SACRS Board of Directors Elections 2022-2023.

If re-elected as a Regular Member, I will continue working to ensure that SACRS remain the preeminent educational organization for the CERL 37 Act Systems by maintaining the high caliber of our conferences (both as formal seminars and superb networking opportunities.) I will continue encouraging greater participation from the Trustees and Staff of the 37 Act Systems. I strongly believe in getting involved as demonstrated by my contribution at SACRS' Board meetings and having volunteered to lead a CALAPRS Trustee Roundtable after attending only a few sessions. Over the years, I have served on the governing Boards of the Teamsters Local 1932, the Working Assembly of Governmental Employees and other organizations. Currently, I serve as a Regular Member on SACRS' Board along with being a member of SACRS' Audit and Education committees.

I have been a Trustee with the San Bernardino County Employees' Retirement Association (SBcera) from January 2015 and attended my first SACRS conference that year. I found the sessions to be very informative and educational with the presenters being experts and/or thought leaders in their field. Since then, I have attended several conferences sponsored by other organizations that are single topic focused and I have also completed certification programs at Wharton, Pepperdine, UCLA and Berkeley. In comparison, SACRS conferences provide a comprehensive insight into the "*nuts and bolts*" of the functioning of Retirement Systems with an emphasis on current applications of the topics. SACRS provides attendees an opportunity to understand different perspectives thereby encouraging clearer lines of communication and to also hear about what works and what may be problematic. The networking and information sharing opportunities with colleagues at SACRS is immensely valuable. These practical qualities and timely information helped to draw me into the SACRS' orbit.

SACRS recent expansion of the Board to include additional members was a very good strategic move that has helped to enhance the experience pool and expand the knowledge base. I believe the current SACRS Board is a team exhibiting a very good blend of geography, experience and perspective. Consequently, I would very much like to continue contributing (based on my education and experience) to SACRS - a superlative organization: "*Providing insight. Fostering oversight*."

I thank you in advance for your kind consideration and support. It would be a high honor for me to be re-elected to continue serving as a Regular Member on the SACRS Board for the 2022-2023 term.

Please find attached the completed SACRS nomination form.

Respectfully,

Vere Williams

Vere Williams, MBA

SBcera Board of Directors – General Elected Member

cc: Sulema Peterson, SACRS

SACRS Nomination Submission Form
SACRS Board of Directors Elections 2022-2023

All interested candidates must complete this form and submit along with a letter of intent. **Both the form and the letter of intent must be submitted no later than March 1, 2022.** Please submit to the Nominating Committee Chair at Dan.McAllister@sdcounty.ca.gov AND to SACRS at sulema@sacrs.org. If you have any questions, please feel free to contact Sulema Peterson at SACRS at (916) 701-5158.

Name of Candidate	Name: Vere Williams
Candidate Contact Information (Please include – Phone Number, Email Address and Mailing Address)	Mailing Address: 8379 Icicle Drive, Pinon Hills, CA 92372 Email Address: verevlw@aol.com Phone: (760) 486-6311
Name of Retirement System Candidate Currently Serves On	System Name: San Bernardino County Employees' Retirement Association
List Your Current Position on Retirement Board (Chair, Alternate, Retiree, General Elected, Etc)	○ General Elected
Applying for SACRS Board of Directors Position (select only one)	○ Regular Member
Brief Bio	I was elected to SBcera's Board in January 2015 and has served on the Administrative, Audit and Investment Committees. Currently, I serve as a Regular Member of the SACRS Board. My community involvement includes serving on the governing Boards of the Teamsters Local 1932, California State Conference of the NAACP, Working Assembly of Governmental Employees (WAGE) and other organizations. I am a past president of the San Bernardino County Association of African-American Employees and currently serves as treasurer for the Hispanic Employees Alliance. I have earned an MBA in Information Management/Accounting and has completed certification courses on Retirement System Management courses at Berkeley, UCLA, Pepperdine and Wharton. I have been an enrolled Agent with the IRS for over 20 years along with more than 25 years working in the finance department at Arrowhead Regional Medical Center. I have been trained in conflict resolution and have completed various workshops and seminars on organization dynamics and interplay. I am currently a member of the SACRS Audit and Education Committees. A guiding quote – **"I always wondered why somebody didn't do something about that, then I realized I was somebody**." – Lily Tomlin

SACRS Submission for General Board Member

February 25, 2022

Mr. Dan McAllister
Chair
Nominating Committee
State Association of County Retirement Systems

Dear Mr. McAllister,

This letter is to serve as an introduction and to submit my application for the State Association of County Retirement Systems Board of Directors.

I have been working with retirement education since first joining the county of San Diego almost 25 years ago. One of my first educational presentations regarding retirement occurred while I was in the academy with the explanation of deferred compensation and the importance of planning ahead.

Over the past many years, I have been approached and encouraged by my fellow county employees to get involved and help improve communications about retirement. I worked from the retirement committee at the Deputy Sheriff's Association (DSA), then to the retirement chair at the DSA. I have been involved for over 15 years with the County of San Diego Deferred Compensation Advisory Committee. After serving many roles with the DSA and the county of San Diego, I was encouraged to step forward and run for the Board of Trustees at the San Diego County Employee Retirement Association (SDCERA). In 2019 I was elected to the SDCERA Board of Trustees and currently serve as the Secretary.

The support from SACRS has been invaluable for my education as a trustee. The many hours of training that we obtain from SACRS has improved the quality of stewardship for our retirement systems. Additionally, the SACRS support in Sacramento in the form of review and feedback to our legislative branch of government is vital.

My goal is to not only join the SACRS Board of Directors but to contribute to this process of developing and supporting the member county retirement systems. I respectfully request and thank you in advance for the consideration of the Nominating Committee in supporting my candidacy for election to the SACRS Board of Directors.

Respectfully,

David Gilmore
SDCERA Trustee

SACRS

SACRS Nomination Submission Form
SACRS Board of Directors Elections 2022-2023

All interested candidates must complete this form and submit along with a letter of intent. **Both the form and the letter of intent must be submitted no later than March 1, 2022.** Please submit to the Nominating Committee Chair at Dan.McAllister@sdcounty.ca.gov AND to SACRS at sulema@sacrs.org. If you have any questions, please feel free to contact Sulema Peterson at SACRS at (916) 701-5158.

Name of Candidate	Name: David Gilmore
Candidate Contact Information (Please include – Phone Number, Email Address and Mailing Address)	Mailing Address: 2275 Rio Bonito Way, San Diego, CA 92108-1685 Email Address: DGilmore@SDCERA.ORG Phone: 619-770-7854
Name of Retirement System Candidate Currently Serves On	System Name: San Diego County Employees Retirement Association
List Your Current Position on Retirement Board (Chair, Alternate, Retiree, General Elected, Etc)	○ Chair ○ Alternate ☒ General Elected ○ Retiree ○ Other _____
Applying for SACRS Board of Directors Position (select only one)	○ President ○ Vice President ○ Treasurer ○ Secretary ☒ Regular Member
Brief Bio	David Gilmore was elected to the SDCERA Board of Directors in 2019 and serves as the Board Secretary. He is on the Audit Committee for this fund of over $17 billion. He served for over twenty years in various roles with the Deputy Sheriff's Association including being elected to the Board of Directors where he was the Secretary Treasurer. Prior to joining the Sheriff's Department in 1997, he was an internal auditor and systems analyst in the mortgage banking industry. He holds a bachelors degree in business administration-accounting and a masters degree in public administration. He is a Lieutenant with the Sheriff's Department and has held various management positions for the past 11 years including the Sheriff's Standards and Compliance Manager reporting to the Office of the Sheriff. He is also a founding member of the County of San Diego Deferred Compensation Investment Advisory Committee.

Adams Street

Tuesday, June 7, 2022 // Chicago, IL