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Alameda County Employees' Retirement Association

BOARD OF RETIREMENT

NOTICE and AGENDA

THIS MEETING WILL BE CONDUCTED VIA TELECONFERENCE [SEE EXECUTIVE ORDER 29-20 ATTACHED AT THE END OF THIS AGENDA.]

ACERA MISSION:

To provide ACERA members and employers with flexible, cost-effective, participant-oriented benefits through prudent investment management and superior member services.

Thursday, April 16, 2020
2:00 p.m.

HOW TO PARTICIPATE	BOARD OF RETIREMENT - MEMBERS	
The public can view the Teleconference and comment via audio during the meeting. To join this Teleconference, please click on the link below. https://zoom.us/join Meeting ID: 449-245-031 Password: 091808 For help joining a Zoom meeting, see: https://support.zoom.us/hc/en-us/articles/201362193	**HENRY LEVY CHAIR**	**TREASURER**
	ELIZABETH ROGERS FIRST VICE-CHAIR	**ELECTED GENERAL**
	JAIME GODFREY SECOND VICE-CHAIR	**APPOINTED**
	DALE AMARAL	**ELECTED SAFETY**
Or Listen to the Audio With Any Phone:	**OPHELIA BASGAL**	**APPOINTED**
1-346-248-7799 or 1-301-715-8592	**KEITH CARSON**	**APPOINTED**
or 1-929-205-6099 or 1-253-215-8782	**TARRELL GAMBLE**	**APPOINTED**
or 1-312-626-6799 or 1-669-900-6833	**LIZ KOPPENHAVER**	**ELECTED RETIRED**
Use Meeting ID and Password above.	**GEORGE WOOD**	**ELECTED GENERAL**
	NANCY REILLY	**ALTERNATE RETIRED[1]**
	DARRYL L.WALKER	**ALTERNATE SAFETY[2]**

[1] Alternate Retired Member (Votes in the absence of the Elected Retired Member, or, if the Elected Retired Member is present, then votes if both Elected General members, or the Elected Safety Member and an Elected General member, are absent).

[2] Alternate Safety Member (Votes in the absence of (1) the Elected Safety, (2) either of the two Elected General Members, or (3) both the Retired and Alternate Retired members).

Note regarding accommodations: The Board of Retirement will provide reasonable accommodations for persons with special needs of accessibility who plan to attend Board meetings. Please contact ACERA at (510) 628-3000 to arrange for accommodation.

Note regarding public comments: Public comments are limited to four (4) minutes per person in total.

The order of agendized items is subject to change without notice. Board and Committee agendas and minutes are available online at www.acera.org.

1. CALL TO ORDER:

2. ROLL CALL:

3. PUBLIC COMMENT:

4. CONSENT CALENDAR:

A. APPROVE APPLICATIONS FOR SERVICE RETIREMENT:
Appendix A

B. APPROVE APPLICATIONS FOR RETIREMENT, DEFERRED:
Appendix B
Appendix B-1

C. APPROVE APPLICATIONS FOR DEFERRED TRANSFER:
None

D. LIST OF DECEASED MEMBERS:
Appendix D

E. APPROVE REQUEST FOR 130 BI-WEEKLY PAYMENTS TO RE-DEPOSIT CONTRIBUTIONS AND GAIN CREDIT:
Appendix E

F. APPROVE STAFF RECOMMENDATIONS (UNCONTESTED) FOR DISABILITY RETIREMENTS:
Appendix F

G. APPROVE HEARING OFFICER RECOMMENDATIONS FOR DISABILITY RETIREMENTS:
None

H. APPROVAL of COMMITTEE and BOARD MINUTES:
February 13, 2020 Investment Committee Minutes
February 20, 2020 Audit Committee Minutes
February 20, 2020 Minutes of the Regular Board Meeting

I. MISCELLANEOUS MATTERS:
Operating Expenses as of February 29, 2020
Approve Staff recommendations for adoption of new pay codes for the County of Alameda, Alameda Health System and Superior Courts

-------End of Consent Calendar-------
(MOTION)

REGULAR CALENDAR
REPORTS AND ACTION ITEMS

5. DISABILITIES, RECOMMENDATIONS AND MOTIONS:
(*Item(s) will be heard in Closed Executive Session)*

None.

6. COMMITTEE REPORTS, RECOMMENDATIONS AND MOTIONS:

None.

7. NEW BUSINESS:

A. Discussion and possible motion to adopt an up to $35 million Investment in AEW Partners Real Estate Fund IX, as part of ACERA's Real Estate Portfolio – Opportunistic.[3]

B. Discussion and possible motion to temporarily increase Investment Staff delegated authority from $25 million to $75 million with designated oversight.

C. Investment Market Update (***Information Item***).

D. Presentation and discussion of the Actuarial Valuation and Review as of December 31, 2019 (Segal) (***Information Item***).

E. Presentation and discussion of the GASB Statement No. 67 Valuation and addendums as of December 31, 2019 (Segal) (***Information Item***).

F. Presentation and discussion of the GASB Statement No. 74 Valuation and addendums as of December 31, 2019 (Segal) (***Information Item***).

G. Solicit input on the frequency and content of operational updates to the Board during this period of disruption.

H. Chief Executive Officer's Report.

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[3] Some written materials and investment recommendations from the consultants, fund managers and ACERA Investment Staff relating to this alternative investment are exempt from public disclosure pursuant to CA Gov. Codes § 6254.26 and § 6255.

8. CONFERENCE/ORAL REPORTS:

9. ANNOUNCEMENTS:

10. BOARD INPUT:

11. ESTABLISHMENT OF NEXT MEETING:

Thursday, May 21, 2020 at 2:00 p.m.

12. ADJOURNMENT

APPENDIX A
APPLICATION FOR SERVICE RETIREMENT

ALBERGOTTIE, Linda
Social Services Agency
Effective Date: 12/28/2019

ALLEN, Sharon A.
Effective: 12/14/2019
Sheriff's Office

ANILAO, Cristti S.
Effective: 12/3/2019
Alameda Health System

BHIMJI, Altaf
Health Care Services Agency
Effective Date: 1/15/2020

BOLDEN, Valerie
Social Services Agency
Effective Date: 1/25/2020

BUXTON, Stephen L.
Effective Date: 1/25/2020
Assessor

COPES, Deborah
Superior Court
Effective Date: 1/11/2020

CORREIA, Kevin
Zone 7
Effective Date: 2/9/2020

CRUZ, Louis
District Attorney
Effective Date: 2/8/2020

DAVIS, Charlena
Social Services Agency
Effective Date: 9/20/2019

DEGAUD-OBROU, Colette
Alameda Health System
Effective Date: 11/7/2019

DICKSON, Ursula
District Attorney
Effective Date: 1/11/2020

DURAN, Delia
Effective Date: 1/25/2020
Social Services Agency

EIJANSANTOS, Ronald
Sheriff's Office
Effective Date: 2/9/2020

ELENDU, Ann U.
Effective: 8/15/2018
Alameda Health System

ELZY, Bennie
Probation
Effective Date: 12/2/2019

ESTRADA, Nellie
Effective 12/03/2019
Alameda Health System

FERNANDEZ, Thelma
Alameda Health System
Effective Date: 2/2/2020

FOSSETT, John L.
Effective: 1/01/2020
Assessor

GARCIA, Maria
Alameda Health System
Effective Date: 2/9/2020

GOODMAN, Kevin D.
Effective: 12/31/2019
Sheriff's Office

GREEN, Kelli
Social Services Agency
Effective Date: 12/2/2019

APPENDIX A
APPLICATION FOR SERVICE RETIREMENT

GRIFFEY, Dawn
Superior Court
Effective Date: 1/25/2020

GRUIDL, Kenneth
Sheriff's Office
Effective Date: 1/25/2020

GUMS, Angela D.
Effective: 1/18/2020
Health Care Services Agency

FRIBERG, James W.
Effective: 12/20/2019
Sheriff’s Office

HALL, Laurie
Retirement
Effective Date: 3/4/2020

HALL, Phyllis K.
Effective: 1/10/2020
Probation

HALLOUM, Omar A.
Effective: 12/24/2019
Information Technology

HENDERSON, Douglas
Comminity Development Agency
Effective Date: 3/7/2020

HESS, David
Social Services Agency
Effective Date: 12/3/2019

HOU, Sandra
County Administrator
Effective Date: 2/8/2020

IRLANDA, Remedios
Effective: 1/11/2020
Alameda Health System

JACKSON, Melanie E.
Effective: 1/11/2020
Social Services Agency

JACKSON, Ray
Public Works Agency
Effective Date: 1/25/2020

JACKSON, Sharon
Alameda Health System
Effective Date: 1/12/2020

JAKUB, Charles T.
Effective: 12/14/2019
Public Works Agency

JOHNSON, Karen
Sheriff's Office
Effective Date: 11/2/2019

KESWANI, Anita
Effective: 12/14/2019
Alameda Health System

KILER, Diane L.
Effective: 1/11/2020
Auditor-Controller

LEE, Teodora S.
Effective: 12/24/2019
Alameda Health System

LEE-FRISON, Pamela
Probation
Effective Date: 1/21/2020

LOUKIANOFF, Michael
Health Care Services Agency
Effective Date: 1/22/2020

MARKLE, Madelyne
Effective: 11/26/2019
Alameda Health System

APPENDIX A
APPLICATION FOR SERVICE RETIREMENT

McGEE, Jim
Effective: 12/01/2019
Public Works Agency

MERTL, Deborah
Sheriff's Office
Effective Date: 1/28/2020

MORALES, Sal
County Counsel
Effective Date: 2/1/2020

O'DOWD, Mark
Effective: 12/31/2019
Public Works Agency

PURCELL, Libby A.
Effective: 1/12/2020
Alameda Health System

PUTICH, Richard R.
Effective: 12/01/2019
Zone 7

RANDA, Dalen
Probation
Effective Date: 1/24/2020

RODRIGUEZ, Vincent
Public Works Agency
Effective Date: 6/15/2019

RTOUBI, Latifa
Effective: 12/30/2019
Alameda Health System

RUDE, Theresa
County Administrator
Effective Date: 2/8/2020

SLAVIT, Paul
Effective: 1/21/2020
Superior Court

SMALL Jeanne
Effective: 8/15/2018
Sheriff's Office

SAN AGUSTIN, Enrique
Public Works Agency
Effective Date: 7/13/2019

SMITH, Edward
General Services Agency
Effective Date: 6/29/2019

STARK, David R.
Effective: 12/27/2019
Sheriff's Office

TATUM, Clinton
Alameda Health System
Effective Date: 1/14/2020

TRUJILLO DE TORRES, Salomae
Social Services Agency
Effective Date: 1/31/2020

VALENCIA, Perry
General Services Agency
Effective Date: 7/13/2019

WALKER, Douglas R.
Effective: 12/27/2019
Sheriff's Office

WONG, Craig
Sheriff's Office
Effective Date: 7/27/2019

WOO, Mark
Health Care Services Agency
Effective Date: 12/20/2019

WOODARD, Sharon
Effective: 12/27/2019
Alameda Health System

APPENDIX B
APPLICATION FOR DEFERRED RETIREMENT

ABRAHAM, Leah N.
Public Defender
Effective Date: 3/12/2020

AGNEW, Jonathan R.
Information Technology
Effective: 1/31/2020

KEYES, Jade R.
Alameda Health System
Effective Date: 1/17/2020

MCFARLAND, Nancy L.
Alameda Health System
Effective: 12/27/2019

SILVER, Rachel C.
Social Services Agency
Effective: 1/17/2020

STEWART, Shandonna M.
Alameda Health System
Effective: 1/03/2020

TAYLOR, Erik J.
Sheriff's Office
Effective: 1/03/2020

TURNER, Clarice J.
Alameda Health System
Effective: 2/24/2020

WARHUUS, Lisa M.
Health Care Services Agency
Effective: 3/6/2020

APPENDIX B-1
APPLICATION FOR NON-VESTED DEFERRED

ARAICA, Ernesto D.
Public Works Agency
Effective Date: 1/31/2020

LUKE, Ryan J.
Sheriff's Office
Effective: 3/6/2020

PENG, Kayla K.
Child Support Services
Effective Date: 1/24/2020

STEPNEY, Robert D.
Alameda Health System
Effective: 12/06/2019

APPENDIX D
LIST OF DECEASED MEMBERS

ANDERSEN, Ronald
Public Works Agency
2/27/2020

BARBER, Carolyn
Social Services Agency
2/15/2020

BAUGHMAN, Allen
Alameda County
02/03/2020

BISQUERA, Aurelio
Auditor-Controller
2/24/2020

BERGENDAHL, Lavoy
Social Services Agency
01/18/2020

BLANCO, Arnold
Non-Mbr Survivor of Maria Blanco
2/23/2020

BROWN, Johnnie
Social Services Agency
02/24/2020

CAYA, Robert
Alameda County
02/10/2020

DA VEGA, Clayton
Alameda County
01/25/2020

DAVIS, Louie
Social Services Agency
02/04/2020

DEGARMO, David
Public Defender
3/14/2020

DICKSON, Jon
Alameda Health System
3/6/2020

EVANS, Thomas
County Library
02/20/2020

HASHIMOTO, Takeshi
General Services Agency
3/5/2020

HEFFERNAN, Orlou
Alameda County
12/07/2019

HENDERSON, Alfred
Non-Member Survivor of Mable Henderson
02/01/2020

HOUSE, Thelma
Social Services Agency
3/5/2020

INGRAM, Eva
Alameda Health System
3/13/2020

JACKSON, Brenda
Alameda Health System
01/31/2020

JULIAN, Daniel
Non-Mbr Survivor of Betty Julian
3/8/2020

MALL, Athel
Alameda Health System
2/17/2020

MATHISEN, Aileen
Alameda Health System
3/6/2020

APPENDIX D
LIST OF DECEASED MEMBERS

MINOT, Roland
Non-Mbr Survivor of Anita Minot
3/10/2020

MUELLER, Ronald
LARPD
02/11/2020

OSUNA, Anne
Alameda County
01/30/2020

PANTONIAL, Zenaida
Public Defender
01/29/2020

PENNINGTON, Ora
Alameda Health System
02/29/2020

PETERSON, Dale
Alameda Health System
01/12/2020

POCHE, Bernard
Non-Mbr Survivor of Sharon Poche
2/17/2020

PUENTES, Mirta
Alameda County
08/12/2019

ROSE, James
Alameda County
01/30/2020

SAPER, Eugene
Sheriff's Office
2/19/2020

SIMMONS, Velma
Assessor
2/21/2020

SIMPSON, Riccardo
Alameda Health System
02/06/2020

SPENCE, William
Sheriff's Office
2/22/2020

SPIERING, Rochelle
Health Care Services Agency
2/11/2020

TABOADA, Manuel
Alameda County
02/07/2020

THOMPSON, Gloria
Social Services Agency
1/31/2020

WALSH, Dorothy
Non-Member Survivor of Bernard Walsh
12/25/2019

WHITE, Sheila
Information Technology
3/2/2020

WILLIAMSON, Gloria
Non-Mbr Survivor of Robert Williamson
2/22/2020

WINROW, Maelene
Social Services Agency
2/13/2020

APPENDIX E
REQUEST FOR 130 BI-WEEKLY PAYMENTS TO RE-DEPOSIT CONTRIBUTIONS AND GAIN CREDIT

THOMAS, Andrea N.
130 Biweekly Payroll Deductions for a total of $34,729.50
Government Code § 31652 Redeposit

APPENDIX F
APPLICATION FOR DISABILITY RETIREMENT

Name: **Algere, Tachia**
Type of Claim: Annual Review for SCD (Granted on 3/21/19)

Staff's Recommendation:

Adopt the findings and conclusions and approve and adopt the recommendation contained in the Medical Advisor's report to continue the allowance for Ms. Algere's service-connected disability and to require future annual medical examinations and questionnaires at this time.

Name: **Arbuckle, Jason**
Type of Claim: Service-Connected

Staff's Recommendation:

Adopt the findings and conclusions and approve and adopt the recommendation contained in the Medical Advisor's report, including but not limited to, granting Mr. Arbuckle's application for a service-connected disability. Since Mr. Arbuckle is over 55 years old, future annual medical examinations and questionnaires will not be required.

Name: **Bautista, Sandra**
Type of Claim: Annual Review for SCD (Granted on 3/21/19)

Staff's Recommendation:

Adopt the findings and conclusions and approve and adopt the recommendation contained in the Medical Advisor's report to continue the allowance for Ms. Bautista's service-connected disability and to waive future annual medical examinations and questionnaires at this time.

APPENDIX F
APPLICATION FOR DISABILITY RETIREMENT

Name: **Bishop, Timothy**
Type of Claim: Service-Connected

Staff's Recommendation:

Adopt the findings and conclusions and approve and adopt the recommendation contained in the Medical Advisor's report, including but not limited to, granting Mr. Bishop's application for a service-connected disability. Since Mr. Bishop is over 55 years old, future annual medical examinations and questionnaires will not be required.

Name: **Kniffin, John**
Type of Claim: Annual Review for SCD (Granted on 1/17/19)

Staff's Recommendation:

Adopt the findings and conclusions and approve and adopt the recommendation contained in the Medical Advisor's report to continue the allowance for Mr. Kniffin's service-connected disability and to waive future annual medical examinations and questionnaires at this time.

Name: **Krischer, Tanni**
Type of Claim: Annual Review for SCD (Granted on 9/20/18)

Staff's Recommendation:

Adopt the findings and conclusions and approve and adopt the recommendation contained in the Medical Advisor's report to continue the allowance for Ms. Krischer's service-connected disability and to waive future annual medical examinations and questionnaires at this time.

Name: **Mendoza, Arnoldo**
Type of Claim: Earlier Effective Date

Staff's Recommendation:

Based on the Medical Advisor's and Staff's review and determination of Mr. Mendoza's ability to determine the permanency of his incapacity, to deny Mr. Mendoza's request for an earlier effective date.

APPENDIX F
APPLICATION FOR DISABILITY RETIREMENT

Name: **Neils, Adam**
Type of Claim: Annual Review for SCD (Granted on 4/18/19)

Staff's Recommendation:

Adopt the findings and conclusions and approve and adopt the recommendation contained in the Medical Advisor's report to continue the allowance for Mr. Neil's service-connected disability and to waive future annual medical examinations and questionnaires at this time.

Name: **O'Brien, Michael**
Type of Claim: Annual Review for SCD (Granted on 9/20/18)

Staff's Recommendation:

Adopt the findings and conclusions and approve and adopt the recommendation contained in the Medical Advisor's report to continue the allowance for Mr. O'Brien's service-connected disability and to waive future annual medical examinations and questionnaires at this time.

Name: **Pope, Derek**
Type of Claim: Service-Connected

Staff's Recommendation:

Adopt the findings and conclusions and approve and adopt the recommendation contained in the Medical Advisor's report, including but not limited to, granting Mr. Pope's application for a service-connected disability, and waiving future annual medical examinations and questionnaires at this time.

Based on the Medical Advisor's and Staff's review and determination of Mr. Pope's ability to determine the permanency of his incapacity, to approve Mr. Pope's request for an earlier effective date.

APPENDIX F
APPLICATION FOR DISABILITY RETIREMENT

Name: **Scott, Lisa**
Type of Claim: Service-Connected

Staff's Recommendation:

Adopt the findings and conclusions and approve and adopt the recommendation contained in the Medical Advisor's report, including but not limited to, granting Ms. Scott's application for a service-connected disability. Since Ms. Scott is over 55 years old, future annual medical examinations and questionnaires will not be required.

Name: **Tulley, Jeanette**
Type of Claim: Service-Connected

Staff's Recommendation:

Adopt the findings and conclusions and approve and adopt the recommendation contained in the Medical Advisor's report, including but not limited to, granting Ms. Tulley's application for a service-connected disability, and requiring future annual medical examinations and questionnaires.

Based on the Medical Advisor's and Staff's review and determination of Ms. Tulley's ability to determine the permanency of her incapacity, to deny Ms. Tulley's request for an earlier effective date.

EXECUTIVE ORDER 29-20

EXECUTIVE DEPARTMENT
STATE OF CALIFORNIA

EXECUTIVE ORDER N-29-20

WHEREAS on March 4, 2020, I proclaimed a State of Emergency to exist in California as a result of the threat of COVID-19; and

WHEREAS despite sustained efforts, the virus continues to spread and is impacting nearly all sectors of California; and

WHEREAS the threat of COVID-19 has resulted in serious and ongoing economic harms, in particular to some of the most vulnerable Californians; and

WHEREAS time bound eligibility redeterminations are required for Medi-Cal, CalFresh, CalWORKs, Cash Assistance Program for Immigrants, California Food Assistance Program, and In Home Supportive Services beneficiaries to continue their benefits, in accordance with processes established by the Department of Social Services, the Department of Health Care Services, and the Federal Government; and

WHEREAS social distancing recommendations or Orders as well as a statewide imperative for critical employees to focus on health needs may prevent Medi-Cal, CalFresh, CalWORKs, Cash Assistance Program for Immigrants, California Food Assistance Program, and In Home Supportive Services beneficiaries from obtaining in-person eligibility redeterminations; and

WHEREAS under the provisions of Government Code section 8571, I find that strict compliance with various statutes and regulations specified in this order would prevent, hinder, or delay appropriate actions to prevent and mitigate the effects of the COVID-19 pandemic.

NOW, THEREFORE, I, GAVIN NEWSOM, Governor of the State of California, in accordance with the authority vested in me by the State Constitution and statutes of the State of California, and in particular, Government Code sections 8567 and 8571, do hereby issue the following order to become effective immediately:

IT IS HEREBY ORDERED THAT:

1. As to individuals currently eligible for benefits under Medi-Cal, CalFresh, CalWORKs, the Cash Assistance Program for Immigrants, the California Food Assistance Program, or In Home Supportive Services benefits, and to the extent necessary to allow such individuals to maintain eligibility for such benefits, any state law, including but not limited to California Code of Regulations, Title 22, section 50189(a) and Welfare and Institutions Code sections 18940 and 11265, that would require redetermination of such benefits is suspended for a period of 90 days from the date of this Order. This Order shall be construed to be consistent with applicable federal laws, including but not limited to Code of Federal Regulations, Title 42, section 435.912, subdivision (e), as interpreted by the Centers for Medicare and Medicaid Services (in guidance issued on January 30, 2018) to permit the extension of

otherwise-applicable Medicaid time limits in emergency situations.

2. Through June 17, 2020, any month or partial month in which California Work Opportunity and Responsibility to Kids (CalWORKs) aid or services are received pursuant to Welfare and Institutions Code Section 11200 et seq. shall not be counted for purposes of the 48-month time limit set forth in Welfare an Institutions Code Section 11454. Any waiver of this time limit shall not be applied if it will exceed the federal time limits set forth in Code of Federal Regulations, Title 45, section 264.1.

3. Paragraph 11 of Executive Order N-25-20 (March 12, 2020) is withdrawn and superseded by the following text:

   Notwithstanding any other provision of state or local law (including, but not limited to, the Bagley-Keene Act or the Brown Act), and subject to the notice and accessibility requirements set forth below, a local legislative body or state body is authorized to hold public meetings via teleconferencing and to make public meetings accessible telephonically or otherwise electronically to all members of the public seeking to observe and to address the local legislative body or state body. All requirements in both the Bagley-Keene Act and the Brown Act expressly or impliedly requiring the physical presence of members, the clerk or other personnel of the body, or of the public as a condition of participation in or quorum for a public meeting are hereby waived.

   In particular, any otherwise-applicable requirements that

   (i) state and local bodies notice each teleconference location from which a member will be participating in a public meeting;

   (ii) each teleconference location be accessible to the public;

   (iii) members of the public may address the body at each teleconference conference location;

   (iv) state and local bodies post agendas at all teleconference locations;

   (v) at least one member of the state body be physically present at the location specified in the notice of the meeting; and

   (vi) during teleconference meetings, a least a quorum of the members of the local body participate from locations within the boundaries of the territory over which the local body exercises jurisdiction

   are hereby suspended.

   A local legislative body or state body that holds a meeting via teleconferencing and allows members of the public to observe and address the meeting telephonically or otherwise electronically, consistent with the notice and accessibility requirements set forth below, shall have satisfied any requirement that the body allow members of the public to attend the meeting and offer public comment. Such a body need not make available any physical location from which members of the public may observe the meeting and offer public comment.

Accessibility Requirements: If a local legislative body or state body holds a meeting via teleconferencing and allows members of the public to observe and address the meeting telephonically or otherwise electronically, the body shall also:

(i) Implement a procedure for receiving and swiftly resolving requests for reasonable modification or accommodation from individuals with disabilities, consistent with the Americans with Disabilities Act and resolving any doubt whatsoever in favor of accessibility; and

(ii) Advertise that procedure each time notice is given of the means by which members of the public may observe the meeting and offer public comment, pursuant to subparagraph (ii) of the Notice Requirements below.

Notice Requirements: Except to the extent this Order expressly provides otherwise, each local legislative body and state body shall:

(i) Give advance notice of the time of, and post the agenda for, each public meeting according to the timeframes otherwise prescribed by the Bagley-Keene Act or the Brown Act, and using the means otherwise prescribed by the Bagley-Keene Act or the Brown Act, as applicable; and

(ii) In each instance in which notice of the time of the meeting is otherwise given or the agenda for the meeting is otherwise posted, also give notice of the means by which members of the public may observe the meeting and offer public comment. As to any instance in which there is a change in such means of public observation and comment, or any instance prior to the issuance of this Order in which the time of the meeting has been noticed or the agenda for the meeting has been posted without also including notice of such means, a body may satisfy this requirement by advertising such means using "the most rapid means of communication available at the time" within the meaning of Government Code, section 54954, subdivision (e); this shall include, but need not be limited to, posting such means on the body's Internet website.

All of the foregoing provisions concerning the conduct of public meetings shall apply only during the period in which state or local public health officials have imposed or recommended social distancing measures.

All state and local bodies are urged to use sound discretion and to make reasonable efforts to adhere as closely as reasonably possible to the provisions of the Bagley-Keene Act and the Brown Act, and other applicable local laws regulating the conduct of public meetings, in order to maximize transparency and provide the public access to their meetings.

IT IS FURTHER ORDERED that as soon as hereafter possible, this Order be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this Order.

This Order is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 17th day of March 2020.

GAVIN NEWSOM
Governor of California

ATTEST:

ALEX PADILLA
Secretary of State

February 20, 2020
Minutes of the Regular Board Meeting
For approval under April 16, 2020
Board "Consent Calendar"

ALAMEDA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
BOARD OF RETIREMENT
MINUTES

Thursday, February 20, 2020

Chair Henry Levy called the meeting to order at 2:00 p.m.

Trustees Present:	Dale Amaral Ophelia Basgal Keith Carson Tarrell Gamble Jaime Godfrey Liz Koppenhaver Henry Levy Elizabeth Rogers Darryl Walker (*Alternate*)
Trustees Excused:	George Wood Nancy Reilly (*Alternate*)
Staff Present:	Margo Allen, Fiscal Services Officer Angela Bradford, Executive Secretary Sandra Dueñas-Cuevas, Benefits Manager Kathy Foster, Assistant Chief Executive Officer Jessica Huffman, Benefits Manager Harsh Jadhav, Chief of Internal Audit Vijay Jagar, Retirement Chief Technology Officer, ACERA Kathy Mount, Chief Counsel David Nelsen, Chief Executive Officer Betty Tse, Chief Investment Office
Staff Excused:	Victoria Arruda, Human Resource Officer

PUBLIC INPUT

None.

CONSENT CALENDAR
REPORTS AND ACTION ITEMS

APPLICATION FOR SERVICE RETIREMENT
Appendix A

APPLICATION FOR RETIREMENT, DEFERRED
Appendix B
Appendix B-1

APPLICATION FOR DEFERRED TRANSFER
Appendix C

LIST OF DECEASED MEMBERS
Appendix D

REQUESTS FOR 130 BI-WEEKLY PAYMENTS TO RE-DEPOSIT CONTRIBUTIONS AND GAIN CREDIT
Appendix E

APPLICATION FOR DISABILITY RETIREMENT – NON-CONTESTED ITEMS
Appendix F

APPLICATION FOR DISABILITY RETIREMENT – HEARING OFFICER RECOMMENDATIONS
Appendix G

APPROVAL OF BOARD and COMMITTEE MINUTES
January 16, 2020 Minutes of the Regular Board Meeting
February 5, 2020 Operations Committee Minutes
February 5, 2020 Retirees Committee Minutes

MISCELLANOUS MATTERS
4th Quarter 2019 Call Center Report

20-08

It was moved by Tarrell Gamble seconded by Ophelia Basgal and approved by a vote of 5 yes (*Basgal, Gamble, Godfrey, Levy, Rogers*), 0 no, and 0 abstentions. (*Darryl Walker recused himself because one or more of the Consent Calendar items involved his employing Department*):

BE IT RESOLVED BY THIS BOARD that the Consent Calendar is approved.

REGULAR CALENDAR
REPORTS AND ACTION ITEMS

DISABILITIES, CURRENT AND CONTINUING RECOMMENDATIONS AND MOTIONS

(*Item(s) will be heard in Closed Executive Session)*

None.

COMMITTEE REPORTS, RECOMMENDATIONS AND MOTIONS

This month's Committee reports were presented in the following order:

Operations:

Tarrell Gamble gave an oral report stating that the Operations Committee met on February 5, 2020 and that the Committee was presented with, reviewed information for and discussed discharging benefit overpayments for the year 2019. The Board made the following motion:

20-09

It was moved by Tarrell Gamble and seconded by Ophelia Basgal that the Board approve the discharge of benefit overpayments for the year 2019 in the amount of $23,442.44. The motion carried 8 yes (*Amaral, Basgal, Gamble, Godfrey, Koppenhaver, Levy, Rogers, Walker*), 0 no, and 0 abstentions.

The Committee was presented with updates on the following Information Items: ***1)*** ACERA Commercial Banking Presentation (Wells Fargo Bank); ***2)*** Un-Audited Financial Statements as of December 31, 2019; ***3)*** Operating Expenses as of October 31, 2019; ***4)*** Actual Cash and Forecast Report as of December 31, 2019; ***5)*** Board Member Conference Expense Report for 4th Qtr. 2019**;** ***6)*** Senior Manager Conference and Training Expense Report for 4th Qtr. 2019; and ***7)*** Proposed 2020 Operations Committee Work Plan.

Minutes of the meeting were presented to the Board for adoption on the Consent Calendar at today's Board meeting.

Retirees:

Liz Koppenhaver gave an oral report stating that the Retirees Committee met on February 5, 2020 and that the Committee was presented with, reviewed information for and discussed the Annual Supplemental Cost of Living Adjustment. The Board made the following motion:

20-10

It was moved by Liz Koppenhaver and seconded by Jaime Godfrey that the Board adopt the Supplemental Cost of Living Adjustment increase for Tier I members who retired on or before April 1, 1981, and Tier 2 members who retired on or before April 1, 2000, effective with the April 1, 2020 monthly retirement allowance. This annual supplemental benefit is non-vested and is funded by the Supplemental. Retiree Benefit Reserve. The motion carried 8 yes (*Amaral, Basgal, Gamble, Godfrey, Koppenhaver, Levy, Rogers, Walker*), 0 no, and 0 abstentions.

Liz Koppenhaver reported that the Committee was also presented with, reviewed information for and discussed 14 retiree Health Reimbursement Arrangement overpayments. The Board made the following motion:

20-11

It was moved by Liz Koppenhaver and seconded by Tarrell Gamble that the Board approve the discharge of 14 retiree Health Reimbursement Arrangement overpayments for prior years 2013 through 2018 totaling $5,424.72. The motion carried 9 yes (*Amaral, Basgal, Carson, Gamble, Godfrey, Koppenhaver, Levy, Rogers, Walker*), 0 no, and 0 abstentions.

The Committee was presented with updates on the following Information Items:
1) Annual Cost of Living Adjustment for 2020; ***2)*** 2020 Annual Retirees Committee Work Plan; ***3)*** Annual Health Care Planning Meeting with Retiree Representative/Date Announcement; ***4)*** 1099-R Processing; ***5)*** Open Enrollment Activity; ***6)*** Results of the Supplemental Retiree Benefit Reserve Benefits Survey; and ***7)*** Miscellaneous Updates.

Minutes of the meeting were presented to the Board for adoption on the Consent Calendar at today's Board meeting.

Investment:

Elizabeth Rogers gave an oral report stating that the Investment Committee met on February 13, 2020 and that the Committee was presented with, reviewed information for and discussed ACERA's ESG Belief Statement. The Board made the following motion:

20-12

It was moved by Elizabeth Rogers and seconded by Tarrell Gamble that the Board adopt ACERA's ESG Belief Statement. The motion carried 9 yes (*Amaral, Basgal, Carson, Gamble, Godfrey, Koppenhaver, Levy, Rogers, Walker*), 0 no, and 0 abstentions.

The Committee was presented with updates on the following Information Items:
1) Review of the 2020 Capital Market Assumptions; and ***2)*** Investment Committee Workplan 2020.

Minutes of the meeting will be presented to the Board for adoption on the Consent Calendar at the March 19, 2020 Board meeting.

Audit:

Tarrell Gamble gave an oral report stating that the Audit Committee meet today and was presented with, reviewed, and discussed the external audit scope of work and timeline of services for the Financial Statements ended December 31, 2019, performed by Williams Adley & Company. LLP. The Board made the following motion:

20-13

It was moved by Tarrell Gamble and seconded by Liz Koppenhaver that the Board approve the external audit scope of work and timeline of services for the Financial Statements ended December 31, 2019, performed by Williams Adley & Company. LLP. The motion carried 8 yes (*Amaral, Carson, Gamble, Godfrey, Koppenhaver, Levy, Rogers, Walker*), 0 no, and 0 abstentions.

The Committee was presented with updates on the following Information Items:
1) Proposed 2020 Audit Committee Work Plan; ***2)*** Completed Audits; ***3)*** Annual Risk Assessment; ***4)*** Proposed 2020 Internal Audit Plan; and ***5)*** Enterprise Risk Management.

Minutes of the meeting will be presented to the Board for adoption on the Consent Calendar at the March 19, 2020 Board meeting.

NEW BUSINESS:

David Nelsen, Chief Executive Officer's Report

Mr. Nelsen presented his February 20, 2020, written CEO Report which provided an update on the following items: ***1)*** Senior Manager Recruitment; ***2)*** Committee/Board Action Items; ***3)*** Conference/Event Schedule; ***4)*** Other Items, which included an update on the Pension Administration System, Personnel items of interest, and ACERA's Key Performance Indicators.

Mr. Nelsen announced that the Joint meeting of the Board of Supervisors (BOS) and Board of Retirement (BOR) has been scheduled for Tuesday, March 24, 2020 at 4 p.m. at the County Training & Education Center. Mr. Nelsen reported that he (and County Administrator Susan Muranishi) is working on finalizing the agenda, which includes presentations by Segal Consulting and Verus, ACERA's outside consultants. Mr. Nelsen requested that those Trustees that are attending the ENGAGE event on March 24^{th} leave the event early in order to attend the Joint meeting of the BOS and BOR.

Mr. Nelsen reported that ACERA had its Pension Administration System Project Kick-Off meeting with LRS, Segal (LRWL) and ACERA's Internal Team and that the parties have agreed on a contract. Mr. Nelsen reported that development of the first module for the Project will take place in April 2020 and that the Project will take approximately three plus years to complete.

CONFERENCE/ORAL REPORTS

Trustee Rogers reported that she and Trustees Godfrey and Levy attended the Pension Bridge ESG Conference, which was very helpful.

Trustee Levy announced that he, and possibly other Trustees, will be attending the Council of Institutional Investors (CII) Conference (March 9 thru 11, 2020).

ANNOUNCEMENTS

Chief Counsel Kathy Mount announced that today is her last "official" Board meeting, as she will be retiring from ACERA effective Friday, March 6, 2020. Ms. Mount expressed her appreciation to the Board, Chief Executive Officer Dave Nelsen, and to Staff for the opportunity to serve as Chief Counsel.

BOARD INPUT

None.

ADJOURNMENT

The meeting adjourned at approximately 2:17 p.m.

Respectfully Submitted,

David Nelsen

03/19/20

David Nelsen
Chief Executive Officer

Date Adopted

APPENDIX A
APPLICATION FOR SERVICE RETIREMENT

AUDENCIAL, Lerna
Effective: 12/2/2019
Alameda Health System

CALIVA, Lori
Effective: 12/18/2019
Community Development Agency

CRISOLOGO, Celina
Effective: 10/21/2019
Alameda Health System

DE LEON, Jennifer
Effective: 11/16/2019
Sheriff's Office

GARLAND, Beverly
Effective: 12/14/2019
Social Services Agency

GREENWOOD, Leslie
Effective: 12/13/2019
Health Care Services Agency

HILL, Vermeille
Effective: 12/14/2019
Health Care Services Agency

HOWARTH, Joseph
Effective: 12/18/2019
General Services Agency

LEUNG, Agnes
Effective: 11/30/2019
Social Services Agency

LOTSCHER, Maria
Effective: 12/14/2019
Social Services Agency

LOUIE, Wai-Yin
Effective: 12/13/2019
Alameda Health System

LUM, Alice
Effective: 11/3/2019
Social Services Agency

MAGGY, Bradley
Effective: 12/27/2019
Human Resource Services

MARTIN, Jane
Effective: 12/28/2019
Health Care Services Agency

MCCORMICK, Carl
Effective: 12/4/2019
Sheriff's Office

MICUOB, Evangeline
Effective: 12/1/2019
Alameda Health System

MILLET, Bonnie
Effective: 11/7/2019
Assessor

MOSS, Robert
Effective: 11/15/2019
Probation

MUNGOVAN, Stephen
Effective: 12/28/2019
Community Development Agency

NG, Pamela
Effective: 12/4/2019
Social Services Agency

O'CONNOR, Ana
Effective: 10/23/2019
Alameda Health System

PAULAR, Dave
Effective: 11/23/2019
Alameda Health System

APPENDIX A
APPLICATION FOR SERVICE RETIREMENT

RAMIREZ, Marciano
Effective: 12/12/2019
Alameda Health System

REARDON, Michele
Effective: 11/30/2019
Public Works Agency

ROTHENBERG, Rona
Effective: 11/6/2019
General Services Agency

SCOTT, Irma
Effective: 11/19/2019
Alameda Health System

SCOTT, Sandra
Effective: 11/30/2019
Superior Court

SILVER, Charlotte
Effective: 11/17/2020
Alameda Health System

SMITH, Gaylyn
Effective: 11/16/2019
Sheriff's Office

SOOHOO, Mark
Effective: 12/14/2019
Probation

SOOSAIPILLAI, Miruni
Effective: 11/30/2019
County Counsel

SOTELO, Patrick
Effective: 11/26/2019
LARPD

THOMASON, Connstance
Effective: 12/14/2019
Social Services Agency

THUMAN, Carol
Effective: 12/5/2019
Alameda Health System

TURAN, Barbara
Effective: 11/11/2019
Health Care Services Agency

WADUD, Gloria
Effective: 11/28/2019
Probation

WOLKENHAUER, Janis
Effective: 11/28/2019
Health Care Services Agency

YATTAW, Susan
Effective: 12/14/2019
Child Support Services

ZAMBALES, Benjamin C.
Effective: 7/30/2016
Social Services Agency

APPENDIX B
APPLICATION FOR DEFERRED RETIREMENT

ARCIBAL, Jenalyn V.
Alameda Health System
Effective Date: 9/20/2019

ASHERA, Sila D.
Alameda Health System
Effective: 11/1/2019

ASHLEY, Guy F.
Information Technology
Effective: 9/20/2019

BOLDS, Jackie A.
Alameda Health System
Effective: 11/2/2019

BUSCHELL, Bennett R.
Alameda Health System
Effective: 10/15/2019

CADRECHA, Michael E.
General Services Agency
Effective: 10/4/2019

CAMPBELL, Loretta J.
Social Services Agency
Effective: 12/20/2019

CAMPBELL, Teisha M.
Social Services Agency
Effective: 11/29/2019

CAOILE, Karen E.
County Administrator
Effective: 12/27/2019

CARLSON, Kelly Paige
Alameda Health System
Effective: 9/5/2019

CHRISTENSEN, Jody K.
Social Services Agency
Effective: 7/12/2019

COUGHLIN, Mary F.
Alameda Health System
Effective: 11/6/2019

CRONIN, Shareen A.
Alameda Health System
Effective: 10/4/2019

DADEJ, Jaime M.
Health Care Services Agency
Effective: 9/6/2019

DELGADO, Bernadette M.
Alameda Health System
Effective: 11/27/2019

DIAZ, Kathia D.
Alameda Health System
Effective: 12/6/2019

DYSON, Cynthia E.
Social Services Agency
Effective Date: 7/18/2019

EDISON, James
Alameda Health System
Effective: 10/11/2019

FILIPPI, Dennis J.
Public Works Agency
Effective: 9/20/2019

FOY, Latron M.
General Services Agency
Effective: 7/28/2019

GARCIA, Maria C.
Alameda Health System
Effective: 12/6/2019

GUTIERREZ, Vanessa S.
Alameda Health System
Effective: 12/6/2019

APPENDIX B
APPLICATION FOR DEFERRED RETIREMENT

HART, Naima C.
Social Services Agency
Effective: 7/5/2019

HINTON, Yvette
Alameda Health System
Effective: 11/27/2019

HONG, Dara
Alameda Health System
Effective: 12/6/2019

JACKSON, Robert C.
General Services Agency
Effective: 11/27/2019

JARAMILLO, Lauren C.
Child Support Services
Effective: 7/19/2019

KENNEDY, Natalie M.
Alameda Health System
Effective: 11/8/2019

KLOBUKOWSKI, Harold A.
Alameda Health System
Effective: 9/20/2019

KOTCH, Suzan J.
Social Services Agency
Effective: 9/6/2019

LAMPRECHT, Chandra E.
Superior Court
Effective: 7/17/2019

LANKOW, Kelsey M.
Health Care Services Agency
Effective: 8/2/2019

MAUS, Mark
Alameda Health System
Effective Date: 8/9/2019

MC RAE, Wilder E.
Health Care Services Agency
Effective: 1/3/2020

NEJAD, Sanam Y.
Alameda Health System
Effective: 7/30/2019

NEWTON, Karen M.
Zone 7
Effective: 12/2/2019

OLIVER, Sharelle J.
Alameda Health System
Effective: 12/6/2019

O'SULLIVAN, Soraya
Alameda Health System
Effective: 12/16/2019

PANG, Rebecca W.
District Attorney
Effective: 7/26/2019

PENA, Carla P.
Alameda Health System
Effective: 12/6/2019

PERMILLION, Karen M.
Alameda Health System
Effective: 10/1/2019

SMITH, Gary L.
Social Services Agency
Effective: 11/20/2019

VALLAS, Melissa E.
Health Care Services Agency
Effective: 10/4/2019

WILLIAMS, Adam J.
Sheriff's Office
Effective: 12/27/2019

APPENDIX B
APPLICATION FOR DEFERRED RETIREMENT

WILLIAMS, Juaninne N.
Social Services Agency
Effective: 12/17/2019

APPENDIX B-1
APPLICATION FOR NON-VESTED DEFERRED

ABRAMS, Emily N.
Alameda Health System
Effective Date: 11/18/2019

ACAMPORA, Rose
Social Services Agency
Effective: 9/27/2019

ADAYA, Stephen
Superior Court
Effective: 9/17/2019

ALLEN, Nikol L.
Alameda Health System
Effective: 7/26/2019

AMADOR, Paolo-Ricardo T.
Health Care Services Agency
Effective: 10/17/2019

ARREDONDO, Eunice A.
Alameda Health System
Effective: 12/6/2019

BARROGA, Roderick M.
Alameda Health System
Effective: 11/1/2019

BECERRA, Patricia
Alameda Health System
Effective: 9/24/2019

BENAVIDES, Mallory L.
Alameda Health System
Effective: 10/31/2019

BENTON, Keilah
Social Services Agency
Effective: 8/23/2019

BONANNO, Angela M.
Alameda Health System
Effective: 7/12/2019

BRYANT, Cheryl M.
Alameda Health System
Effective: 11/4/2019

BRYANT, Timothy V.
Alameda Health System
Effective: 11/14/2019

CAMPOS, Angelica Z.
Social Services Agency
Effective: 7/24/2019

CERONE, Felipe J.
Alameda Health System
Effective: 11/10/2019

CHANDRA, Vinita
Information Technology
Effective: 11/8/2019

CHRISTIANSEN, Dylan
Sheriff's Office
Effective Date: 10/2/2019

CLAASSEN, Emily R.
Health Care Services Agency
Effective: 11/29/2019

APPENDIX B-1
APPLICATION FOR NON-VESTED DEFERRED

CREESE, Kellyn C.
District Attorney
Effective: 7/19/2019

DANIELS, Marcia A.
Alameda Health System
Effective: 12/14/2019

DE VEGA, Reypaulo S.
Information Technology
Effective: 8/16/2019

DEVLIN, Carol A.
Alameda Health System
Effective: 8/2/2019

DICKENS, Mignon B.
Alameda Health System
Effective: 7/31/2019

ECHANIZ, Maria T.
Alameda Health System
Effective: 11/14/2019

ESPINOZA, Ashley E.
Health Care Services Agency
Effective: 10/11/2019

EVANCULLA, Jonathan B.
Social Services Agency
Effective: 8/9/2019

GARIBAY, Josue A.
Human Resource Services
Effective: 12/20/2019

GONZALES, Jasmine
Social Services Agency
Effective: 12/27/2019

GONZALEZ, Gisella Y.
Alameda Health System
Effective: 6/16/2019

GONZALEZ, Lisette
County Library
Effective: 8/22/2019

GRAYSON, Bobbie K.
Social Services Agency
Effective: 9/13/2019

GREEN, Monica E.
Human Resource Services
Effective: 11/22/2019

GREER, Stephen B.
Zone 7
Effective Date: 7/19/2019

GRIFFITHS, Craig S.
Alameda Health System
Effective: 12/13/2019

HAIRSTON, Le' Kreeya C.
Social Services Agency
Effective: 8/16/2019

HAMPTON, Janine L.
Public Works Agency
Effective: 12/27/2019

HARRIS, Brittany C.
Alameda Health System
Effective: 9/17/2019

HERNANDEZ VILCHIS, Carlos C.
Social Services Agency
Effective: 12/6/2019

HSU, Edward
Superior Court
Effective: 9/13/2019

HUNTER, Gregory A.
Alameda Health System
Effective: 12/2/2019

APPENDIX B-1
APPLICATION FOR NON-VESTED DEFERRED

HURLEY, Sean C.
Sheriff's Office
Effective: 7/6/2019

HUSSAIN, Rumana S.
Alameda Health System
Effective: 10/10/2019

IBALIO, Fidencio J.
ACERA
Effective: 12/10/2019

IMRU, Ruth
Alameda Health System
Effective: 8/14/2019

JARAMILLO, Joyce E.
Probation
Effective: 12/13/2019

JENKINS, Aisha K.
Alameda Health System
Effective: 11/29/2019

JULIUS, Immacula
Alameda Health System
Effective: 12/5/2019

KING-GALLMAN, Wade J.
Social Services Agency
Effective: 7/19/2019

LEE, Robert
Health Care Services Agency
Effective Date: 11/29/2019

LIAO, Cleo J.
Probation
Effective: 7/19/2019

LIU, James
Social Services Agency
Effective: 9/5/2019

MACIAS, Cesar
Superior Court
Effective: 10/18/2019

MAR, Raymond S.
Superior Court
Effective: 11/4/2019

MARAMREDDY, Neeraja V.
Alameda Health System
Effective: 1/3/2020

MARQUEZ, Javier A.
Assessor
Effective: 7/26/2019

MARTINEZ, Britanni A.
Sheriff's Office
Effective: 12/13/2019

MAURICIO KO, Jewel M.
Health Care Services Agency
Effective: 10/4/2019

MCGARY, Lauren S.
District Attorney
Effective: 12/27/2019

MIKE, Michelle O.
Alameda Health System
Effective: 9/17/2019

MOSES, Willie H.
Alameda Health System
Effective: 11/18/2019

MURE, Ayrika A.
Alameda Health System
Effective: 6/13/2019

MURPHY, Jaime R.
Social Services Agency
Effective: 11/18/2019

APPENDIX B-1
APPLICATION FOR NON-VESTED DEFERRED

MUSE, Don R.
Sheriff's Office
Effective: 11/19/2019

NALY, Montoya
Assessor
Effective: 8/30/2019

NOMURA, Fumiko
Alameda Health System
Effective Date: 11/15/2019

OTA, Christopher T.
County Library
Effective: 12/28/2019

PAK, Christy J.
Alameda Health System
Effective: 1/3/2020

PEREIRA, Robert C.
Sheriff's Office
Effective: 9/15/2019

POLINTAN, Michelle
Superior Court
Effective: 10/24/2019

RASSOULI, Gustav D.
Information Technology
Effective: 7/26/2019

REED, Melvina P.
Child Support Services
Effective: 11/29/2019

ROBINSON, John B.
District Attorney
Effective: 11/15/2019

SCHUELLER, Eva
County Counsel
Effective: 11/22/2019

SHAH, Forum
Alameda Health System
Effective: 7/12/2019

SHANMUGHAM, Trasily K.
Information Technology
Effective: 12/9/2019

SHIAU, Rita L.
Health Care Services Agency
Effective: 12/6/2019

SIGEL-KWONG, Lian
Superior Court
Effective: 9/20/2019

SINGH, Aprajita
Social Services Agency
Effective: 12/26/2019

SMYTH, Kerri A.
Zone 7
Effective: 11/22/2019

SRIVASTAVA, Sachin
Information Technology
Effective: 11/29/2019

STAHL, Timothy M.
Alameda Health System
Effective Date: 1/11/2020

STINE, Laura Marie
Superior Court
Effective: 10/18/2019

APPENDIX B-1
APPLICATION FOR NON-VESTED DEFERRED

SURI, Vinay
Information Technology
Effective: 10/31/2019

TEN, Alla
Superior Court
Effective: 9/17/2019

THOMAS, Kathleen A.
Health Care Services Agency
Effective: 7/26/2019

TOILOLO, Ilaise M.
Social Services Agency
Effective: 10/17/2019

TWU, Allen J.
Alameda Health System
Effective: 11/22/2019

WEN, Xing Hua
Auditor-Controller
Effective: 11/1/2019

WIECKI, Richard
Alameda Health System
Effective: 12/3/2019

WILLIAMS, Paul M.
Alameda Health System
Effective: 8/7/2019

YOUNG, Deante L.
Human Resource Services
Effective: 10/5/2019

YOUNG, Gary L.
ACERA
Effective: 12/6/2019

YOUNG-DOYLE, Thomas
LARPD
Effective: 7/10/2019

APPENDIX D
LIST OF DECEASED MEMBERS

ALBERTINI, William
Non-Mbr Survivor of Dorothy Albertini
11/17/2019

ALTSCHUL, David
Social Services Agency
12/12/2019

BARON, Robert
Social Services Agency
11/17/2019

BREWIN, Pat
Alameda Health System
12/15/2019

BROWN, Benetta
Social Services Agency
12/10/2019

BURKE, Shelba
Alameda County
1/24/2020

CHAMBERS, Beverly
Non-Mbr Survivor of Edwin Chambers
1/20/2020

CRUZ, Francisco
Alameda Health System
12/9/2019

APPENDIX D
LIST OF DECEASED MEMBERS

DE BERG, Ruth
Superior Court
12/17/2019

DE BORD, Therese
Alameda Health System
10/30/2019

ECKHARDT, Dwight
Health Care Services Agency
1/18/2020

FORTUNA, Soledad
Assessor
1/13/2020

HARDIN, John
Sheriff's Office
12/23/2019

HOWERTON, Jeanette
Health Care Services Agency
12/30/2019

KERR, Howard
Health Care Services Agency
1/2/2020

LEONES, Ramon
Alameda Health System
1/19/2020

MANWARING, Edward
General Services Agency
1/13/2020

PADILLA, Sylvester
Alameda Health System
12/23/2019

PILAT, Noelle
Public Works Agency
1/9/2020

RABON, Fred
Probation
1/20/2020

ROBINSON, Leanna
Social Services Agency
12/30/2019

SEGHETTI, Mary
Non-Mbr Survivor of Leo Seghetti
1/6/2020

VIDAL, Romy
Superior Court
1/25/2020

VOLPE, Kathleen
District Attorney
1/20/2020

WRIGHT, Thomas
Sheriff's Office
1/4/2020

APPENDIX E
REQUEST FOR 130 BI-WEEKLY PAYMENTS TO RE-DEPOSIT CONTRIBUTIONS AND GAIN CREDIT

PRUITT, Kimberly L.
130 Bi-weekly Payroll Deductions per Government Code § 31652 Redeposit

APPENDIX F
APPLICATION FOR DISABILITY RETIREMENT

Name: **Davis, Johnny**
Type of Claim: Service-Connected

Staff's Recommendation:

Adopt the findings and conclusions and approve and adopt the recommendation contained in the Medical Advisor's report, including but not limited to, granting Mr. Davis's application for a service-connected disability. Since Mr. Davis is over 55 years old, future annual medical examinations and questionnaires will not be required.

Name: **Eggers, Jeny**
Type of Claim: Service-Connected

Staff's Recommendation:

Adopt the findings and conclusions and approve and adopt the recommendation contained in the Medical Advisor's report, including but not limited to, granting Ms. Egger's application for a service-connected disability, and waiving future annual medical examinations and questionnaires at this time.

Name: **Fox, Cori**
Type of Claim: Annual Review for SCD (Granted on 12/20/18)

Staff's Recommendation:

Adopt the findings and conclusions and approve and adopt the recommendation contained in the Medical Advisor's report to continue the allowance for Ms. Fox's service-connected disability and to waive future annual medical examinations and questionnaires at this time.

APPENDIX F
APPLICATION FOR DISABILITY RETIREMENT

Name: **Gardere, Miya**
Type of Claim: Annual Review for SCD Supplemental Allowance (Granted on 9/20/18)

Staff's Recommendation:

Adopt the findings and conclusions and approve and adopt the recommendation contained in the Medical Advisor's report to continue the allowance for Ms. Gardere's service-connected disability and to require future annual medical examinations and questionnaires at this time.

Name: **Gayfield, Yvette**
Type of Claim: Service-Connected

Staff's Recommendation:

Adopt the findings and conclusions and approve and adopt the recommendation contained in the Medical Advisor's report, including but not limited to, granting Ms. Gayfield's application for a service-connected disability, and waiving future annual medical examinations and questionnaires at this time.

Name: **Lewis, Tania**
Type of Claim: Annual Review for SCD (Granted on 1/17/19)

Staff's Recommendation:

Adopt the findings and conclusions and approve and adopt the recommendation contained in the Medical Advisor's report to continue the allowance for Ms. Lewis's service-connected disability and to waive future annual medical examinations and questionnaires at this time.

Name: **Mendoza, Arnoldo**
Type of Claim: Service-Connected

Staff's Recommendation:

Adopt the findings and conclusions and approve and adopt the recommendation contained in the Medical Advisor's report, including but not limited to, granting Mr. Mendoza's application for a service-connected disability. Since Mr. Mendoza is over 55 years old, future annual medical examinations and questionnaires will not be required.

APPENDIX F
APPLICATION FOR DISABILITY RETIREMENT

Name: **Rhodes, Channing**
Type of Claim: Service-Connected

Staff's Recommendation:

Adopt the findings and conclusions and approve and adopt the recommendation contained in the Medical Advisor's report, including but not limited to, granting Mr. Rhodes's application for a service-connected disability, and waiving future annual medical examinations and questionnaires at this time.

Name: **Spikes, Cecile**
Type of Claim: Service-Connected

Staff's Recommendation:

Adopt the findings and conclusions and approve and adopt the recommendation contained in the Medical Advisor's report, including but not limited to, granting Ms. Spikes' application for a service-connected disability. Since Ms. Spikes is over 55 years old, future annual medical examinations and questionnaires will not be required.

Name: **Thoms, Derek**
Type of Claim: Annual Review for SCD (Granted on 12/21/17)

Staff's Recommendation:

Adopt the findings and conclusions and approve and adopt the recommendation contained in the Medical Advisor's report to continue the allowance for Mr. Thom's service-connected disability and to waive future annual medical examinations and questionnaires at this time.

Name: **Torres, Norman**
Type of Claim: Annual Review for NSCD (Granted on 10/17/19)

Staff's Recommendation:

Adopt the findings and conclusions and approve and adopt the recommendation contained in the Medical Advisor's report, waiving future annual medical examinations and questionnaires at this time.

APPENDIX G
APPLICATION FOR DISABILITY RETIREMENT
HEARING OFFICER RECOMMENDATIONS

Name: **Morra, Leslie**
Type of Claim: Service-Connected Disability

Staff's Recommendation:

Adopt the findings, conclusions and recommendation of the Hearing Officer in the Hearing Officer's report to approve Ms. Morra's application for a Service-Connected Disability Retirement.

No opposition to the Hearing Officer's recommendation was received from the parties.

February 13, 2020 Investment Committee Minutes
For approval under April 16, 2020 Board “Consent Calendar”

ACERA
ALAMEDA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
475 14th Street, Suite 1000, Oakland, CA 94612 (800) 838-1932 (510) 628-3000 fax: (510) 268-9574 www.acera.org

Date: February 13, 2020

To: Members of the Board of Retirement

From: Elizabeth Rogers – Chair

Subject: Summary of February 13, 2020 Investment Committee Meeting

The Investment Committee ("Committee") met on Wednesday, February 13, 2020 at 9:31 a.m. The Committee members present were Dale Amaral, Ophelia Basgal, Tarrell Gamble, Jaime Godfrey, Liz Koppenhaver, Henry Levy, and Elizabeth Rogers. Also present were Alternate Safety Member Daryl Walker and Alternate Retired Member, Nancy Reilly. Members of the Staff present were David Nelsen – Chief Executive Officer, Kathy Mount – Chief Counsel, Harsh Jadhav – Chief of Internal Audit, and Betty Tse – Chief Investment Officer (CIO).

Action Items: Matters for discussion and possible motion by the Committee

1. Discussion of and Possible Motion to Recommend to the Board to Adopt ACERA's ESG Belief Statement

   - Staff and Verus Advisory, Inc. (Verus) presented the ESG Belief Statement which was intended to mitigate risks that may have a negative impact on the Fund's long-term financial results while adhering to a diversified investment strategy designed to meet ACERA's desired return and risk objectives.

   - Staff emphasized that the named Belief Statement was drafted following the explicit instructions of the ACERA Working Group of Trustees.

   - After discussion, Mr. Jaime Godfrey moved, seconded by Ms. Ophelia Basgal, to recommend to the Board to adopt ACERA's ESG Belief Statement.

   - The motion carried unanimously with 8 yes (Amaral, Basgal, Gamble, Godfrey, Levy, Koppenhaver, Rogers, and Walker), 0 no, and 0 abstention.

Information Items: These items are not presented for Committee action but consist of status updates and cyclical reports

1. Review of the 2020 Capital Market Assumptions

   - Representatives from Verus discussed the methodologies used and the resultant 10-year return and risk forecasts for various asset classes projected for the 2020-2029 period. Compared to the 10-year forecasts projected at the start of 2019, most asset classes' return for the named 2020-2029 period are estimated to decline due to unusually strong performances for these asset classes in 2019.

- When applying the 2020 Capital Market Assumptions to ACERA's existing asset allocation targets, the projected 10-year return for ACERA's portfolio is approximately 6.2%, with a standard deviation of 12.2%. This Total Fund return projection is down from a 6.7% 10-year return forecast (with a standard deviation of 12.3%) derived from the previous 2019 Capital Market Assumptions.

2. Investment Committee Workplan 2020

   - Staff presented the Investment Committee Workplan for 2020 which includes multiple education sessions.

   - Staff also highlighted that the March, May and November Investment Committee Meetings have been rescheduled to accommodate Trustees' availability, and the SACRS Conference schedules, respectively.

TRUSTEE/PUBLIC INPUT
None

FUTURE DISCUSSION ITEMS
None

ESTABLISHMENT OF NEXT MEETING DATE
Wednesday, March 18, 2020 at 9:30 a.m.

ADJOURNMENT
The meeting ended at 10:16 a.m.

February 20, 2020 Audit Committee Minutes For approval under April 16, 2020 Board "Consent Calendar"

ACERA ALAMEDA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

475 14th Street, Suite 1000, Oakland, CA 94612 800/838-1932 510/628-3000 fax: 510/268-9574 www.acera.org

Date: February 20, 2020

To: Members of the Audit Committee

From: Tarrell Gamble, Chair

Subject: Summary of the February 20, 2020, Audit Committee Meeting

Audit Committee Chair Tarrell Gamble called the February 20, 2020, Audit Committee meeting to order at 1:05 pm. Committee members present were Dale Amaral, Ophelia Basgal, Keith Carson, and Henry Levy. Other Board members present were Liz Koppenhaver, Jaime Godfrey, and Darryl Walker. Members of the Staff present were David Nelsen, Chief Executive Officer; Kathy Foster, Assistant Chief Executive Officer; Margo Allen, Fiscal Services Officer; Harsh Jadhav, Chief of Internal Audit; Kathy Mount, Chief Counsel; Vijay Jagar, Retirement Chief Technology Officer; Betty Tse, Chief Investment Officer; Jessica Huffman, Benefits Manager; and Sandra Dueñas-Cuevas, Benefits Manager.

PUBLIC COMMENT

None

ACTION ITEMS

External Audit:

1. **Presentation, discussion, and possible motion to approve the external audit scope of work and timeline of services for the Financial Statements ended December 31, 2019, to be performed by Williams Adley & Co. LLP.**

   Audrey Elbert and Kenneth Yu of Williams Adley & Company, LLC, presented and discussed the 2020 scope of work and timeline of the 2019 external audit.

   After discussion, it was moved by Ophelia Basgal and seconded by Darryl Walker that the Audit Committee recommend to the Board of Retirement that the Board approve the external audit scope of work and timeline of services to be performed by Williams Adley & Co. LLP.

   The motion carried 6 yes (*Amaral, Basgal, Godfrey, Koppenhaver, Walker, and Gamble*), 0 no, 0 abstentions.

INFORMATION ITEMS

External Audit

1. **2020 Audit Committee Work Plan (Proposed)**
   Staff presented the proposed 2020 Audit Committee work plan.

Internal Audit

1. **Review Completed Audits**
2. **Review of the Annual Risk Assessment**
3. **Presentation of the 2020 Internal Audit Program (Proposed)**

   Staff presented the completed audits, annual risk assessment process and the 2020 Internal Audit program.

4. **Enterprise Risk Management (ERM) Presentation**

   Staff presented the benefits of implementing enterprise risk management as part of ACERA's strategic planning process..

TRUSTEE COMMENT

None.

ESTABLISHMENT OF NEXT MEETING DATE

April 16, 2020, at 1:00 pm

MEETING ADJOURNED

The meeting adjourned at 1:56 pm

Operating Expenses as of February 29, 2020

MEMORANDUM TO THE BOARD OF RETIREMENT

DATE: April 16, 2020

TO: Members of the Board of Retirement

FROM: Margo Allen, Fiscal Services Officer MMA

SUBJECT: Operating Expense Budget Summary for the period ended February 29, 2020

ACERA's operating expenses are $442K under budget for the period ended February 29, 2020. Budget overages and surpluses worth noting are as follows:

Budget Surpluses

1. *Staffing:* Staffing is $277K under budget. This amount comprises surplus in staff vacancies of ($101K) and fringe benefits of ($235K), which are offset by overage in temporary staffing of $59K due to vacant positions filled by temporary staff.
2. *Staff Development:* Staff Development is $33K under budget due to savings from unattended staff trainings.
3. *Professional Fees:* Professional Fees are $59K under budget. This amount comprises surplus in actuarial fees[1] of ($36K) due to saving from last year accrual and legal fees of ($23K).
4. *Office Expense:* Office Expense is $9K under budget. This amount comprises surpluses in office maintenance and supplies of ($5K), printing and postage of ($2K), bank charges and miscellaneous admin of ($1K), building expenses of ($1K), equipment lease and maintenance of ($1K) and minor equipment and furniture of ($2K). Which are offset by overage in communication expense of $3K.
5. *Member Services:* Member Services are $31K under budget. This amount comprises surpluses in disability legal arbitration and transcripts of ($9K) and disability medical expense of ($20K) due to reduction in number of disability cases, health reimbursement account of ($1K), and members printing and postage of ($3K), which are offset by overage in member training and education of $2K.
6. *Systems:* Systems are $26K under budget. This amount comprises surpluses in software maintenance and support of ($25K) primarily due to timing difference, and business continuity expense of ($3K), which are offset by overage in minor computer hardware of $2K.
7. *Depreciation*: Depreciation is $1K under budget, which is mainly related to the computer software.

[1] ACERA has savings of $36K from 2019 actuarial services accrual. $30k is related to Actuarial Standard of Practice #51 Pension Risk and $6k is related to consulting services provided by Segal.

8. *Board of Retirement:* Board of Retirement is $7K under budget. This amount comprises surpluses in board employer reimbursement of ($3K), board compensation of ($1K), board miscellaneous expense of ($2K), and board conferences and training of ($1K).

Staffing Detail

Permanent vacant positions as of February 29, 2020:

Department	Position	QTY	Comments
Benefits	Retirement Technician	3	Filled by temporary staff - currently budgeted until 12/2020
Investments	Senior Investment Officer	1	Vacant - currently budgeted until 12/2020
Investments	Investment Officer	1	Vacant - currently budgeted until 12/2020
	Total Positions	**5**	

Pension Administration System Project - As of 2/29/2020					
	Year-To-Date			Annual	
	Actual	Budget	Variance	2020 Budget	2019 Actual
Consultant Fees					
Levi, Ray and Shoup	388,278	424,000	(35,722)	2,544,000	224,153
LRWL Inc.	76,680	66,660	10,020	400,000	398,160
Leap Technologies	-	-	-	-	98,970
Total	464,958	490,660	(25,702)	2,944,000	721,283
Staffing	66,013	111,000	(44,987)	665,000	387,808
TOTAL	**530,971**	**601,660**	**(70,689)**	**3,609,000**	**1,109,091**

ALAMEDA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

TOTAL OPERATING EXPENSE SUMMARY

YEAR TO DATE - ACTUAL VS. BUDGET

February 29, 2020

	Actual *Year-To-Date*	Budget *Year-To-Date*	YTD Variance *(Under)/Over*	2020 *Annual* *Budget*	% Actual to *Annual Budget*
Staffing	$ 2,287,407	$ 2,564,360	**$ (276,953)**	$ 15,691,000	**14.6%**
Staff Development	35,597	68,430	**(32,833)**	482,000	**7.4%**
Professional Fees **(Next Page)**	115,849	174,960	**(59,111)**	1,215,000	**9.5%**
Office Expense	78,165	86,800	**(8,635)**	531,000	**14.7%**
Insurance	156,901	156,900	**1**	967,000	**16.2%**
Member Services	47,877	79,120	**(31,243)**	527,000	**9.1%**
Systems	158,605	184,100	**(25,495)**	1,128,000	**14.1%**
Depreciation	20,093	21,220	**(1,127)**	123,000	**16.3%**
Board of Retirement	71,755	78,600	**(6,845)**	660,000	**10.9%**
Uncollectable Benefit Payments	-	-	**-**	22,000	**0.0%**
Total Operating Expense	**$ 2,972,249**	**$ 3,414,490**	**$ (442,241)**	**$ 21,346,000**	**13.9%**

ALAMEDA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

PROFESSIONAL FEES

YEAR TO DATE - ACTUAL VS. BUDGET

February 29, 2020

	Actual Year-To-Date	Budget Year-To-Date	YTD Variance (Under)/Over	2020 Annual Budget	% Actual to Annual Budget
Professional Fees					
Consultant Fees - Operations and Projects[1]	$ 54,743	$ 54,300	$ 443	$ 366,000	**15.0%**
Actuarial Fees[2]	(4,790)	31,660	(36,450)	466,000	**-1.0%**
External Audit[3]	51,000	51,000	-	153,000	**33.3%**
Legal Fees[4]	14,896	38,000	(23,104)	230,000	**6.5%**
Total Professional Fees	**$ 115,849**	**$ 174,960**	**$ (59,111)**	**$ 1,215,000**	**9.5%**

	Actual Year-To-Date	Budget Year-To-Date	YTD Variance (Under)/Over	2019 Annual Budget	% Actual to Annual Budget
[1] CONSULTANT FEES - OPERATIONS AND PROJECTS:					
Administration					
Benchmarking	-	-	-	20,000	0.0%
Total Administration	-	-	-	20,000	0.0%
Benefits					
Alameda County HRS (Benefit Services)	21,000	21,000	-	126,000	16.7%
Segal (Benefit Consultant/Retiree Open Enrollment)	20,910	20,500	410	123,000	17.0%
Dental and Vision Consulting	-	-	-	20,000	0.0%
Total Benefits	41,910	41,500	410	269,000	15.6%
Human Resources					
Lakeside Group (County Personnel)	12,833	12,800	33	77,000	16.7%
Total Human Resources	12,833	12,800	33	77,000	16.7%
Total Consultant Fees - Operations	**$ 54,743**	**$ 54,300**	**$ 443**	**$ 366,000**	**15.0%**
[2] ACTUARIAL FEES					
Actuarial valuation	-	-	-	77,000	0.0%
GASB 67 & 68 Valuation	-	-	-	48,000	0.0%
GASB 74 & 75 Actuarial	-	-	-	14,000	0.0%
Actuarial Standard of Practice 51 Pension Risk	(30,000)	-	(30,000)	60,000	-50.0%
Supplemental Consulting	25,210	31,660	(6,450)	190,000	13.3%
Triennial Experience Study	-	-	-	36,000	0.0%
Supplemental Retiree Benefit Reserve valuation	-	-	-	41,000	0.0%
Total Actuarial Fees	**$ (4,790)**	**$ 31,660**	**$ (36,450)**	**$ 466,000**	**-1.0%**
[3] EXTERNAL AUDIT					
External audit	43,000	43,000	-	129,000	33.3%
GASB 67 & 68	4,000	4,000	-	12,000	33.3%
GASB 74 & 75-External Audit	4,000	4,000	-	12,000	33.3%
Total External Audit Fees	**$ 51,000**	**$ 51,000**	**$ -**	**$ 153,000**	**33.3%**
[4] LEGAL FEES					
Fiduciary Counseling					
Nossaman	6,554	21,142	(14,588)	124,930	
Reed Smith	266	858	(592)	5,070	
Subtotal	6,820	22,000	(15,180)	130,000	5.2%
Tax and Benefit Issues					
Hanson Bridgett	3,076	6,000	(2,924)	40,000	
Subtotal	3,076	6,000	(2,924)	40,000	7.7%
Litigation & Miscellaneous Legal Advice					
Meyers Nave	5,000	10,000	(5,000)	60,000	
Subtotal	5,000	10,000	(5,000)	60,000	8.3%
Total Legal Fees	**$ 14,896**	**$ 38,000**	**$ (23,104)**	**$ 230,000**	**6.5%**

Approve Staff Recommendations for Adoption of New Pay Codes for the County of Alameda

ACERA

MEMORANDUM TO THE BOARD OF RETIREMENT

DATE: April 16, 2020

TO: Members of the Board of Retirement

FROM: Sandra Dueñas-Cuevas, Benefits Manager SDC

SUBJECT: **Approval of Four New County Pay Codes as "Compensation Earnable" and " Pensionable Compensation"**

On an urgency basis, due to the health and safety of all County employees and its residents, the Alameda County Board of Supervisors adopted a Salary Ordinance to add subsection 3-19.98, which (1) provides pay for employees who are unable to work due to the Shelter in Place Order of the Health Officer of County of Alameda for the time period March 17, 2020 through April 7, 2020, and (2) awards administrative leave (each hour worked up to a maximum of 128 hours) to employees who work during the time period March 17, 2020 through April 7, 2020 ("COVAL Leave").

The County is using an existing pay code (ERR) for employees who receive pay for time they are unable to work from March 17, 2020 through April 7, 2020. ERR is already appropriately designated as "compensation earnable" and "pensionable compensation." The County requested that the following four new pay codes be designated as "compensation earnable" and "pensionable compensation":

- FER – FMLA Emerg Adm Lv (COVID – 19)
  All employees currently on approved FMLA leave will use the pay code FER between 3/17/2020 and 4/7/2020, to receive pay.

- CVL – COVID Adm Lv (COVAL) Used
  Pay Code CVL will be used when the employee takes time off work and uses COVAL Leave, unless either FCV or PCV (below) applies.

- FCV – FMLA COVID Adm Lv (COVAL) Used
  Pay Code FCV will be used when the employee takes time off work, uses COVAL Leave and also has leave approved under the Family Medical Leave Act (FMLA).

- PCV – PDL COVID Adm Lv (COVAL) Used
  Pay Code PCV will be used when the employee takes time off work, uses COVAL Leave and also has leave approved under the Pregnancy Disability Leave law (PDL).

All four of the new pay codes are used for base pay at the normal rate, for the normal number of hours that the employee works during normal working hours. Staff, including Chief Counsel, reviewed and discussed the required supporting documentation (attached) with the Auditor-Controller and made the administrative determination that the new pay codes qualify as "compensation earnable" under Government Code Section 31461 (for Legacy members) and "pensionable compensation" under Government Code Section 7522.34 (for PEPRA members). The two relevant Government Code sections are attached for the Board's review.

Staff informed the County that staff's administrative determination will be on the Board's consent calendar for approval at the Board's April 16, 2020 meeting. If this item is not pulled from the consent calendar for discussion, then the Board will approve staff's determinations that the four pay codes are all "compensation earnable" under Government Code Section 31461 (for Legacy members) and "pensionable compensation" under Government Code Section 7522.34 (for PEPRA members).

Attachments

ALAMEDA COUNTY
AUDITOR-CONTROLLER AGENCY
STEVE MANNING

AUDITOR-CONTROLLER/CLERK-RECORDER

REQUEST FOR ACERA'S REVIEW OF A NEW PAY ITEM/CODE

Employer Name:	County of Alameda
Date of Request	4/3/2020
Employer Department Submitting the Request	Auditor-Controller's Agency
Contact Person/Employer (include title/position)	Dawn Duffy
Contact Person Telephone incl area code	(510) 272-6383
Contact Person Email address	dawn.duffy@acgov.org
Pay Item Name (and code Number)	**CVL** COVID Adm Lv (COVAL) Used
Pay Item Effective Date per authorization:	4/8/2020 (tentative)
State if additional documentation is attached	No

NOTE: The following information is required before ACERA can review and respond to the request. To meet ACERA's requirements, please provide substantive responses below or on a separate paper and return , with this form, all of the supporting documentation prior to issuing (paying) the pay item to any employee who is an ACERA member.

1. State the job classification of employees eligible for the pay item (i.e. Job Code 0499-Nurse Practitioners II may receive this pay item)

RESPONSE #1:

All employees who worked during the COVID-19 Shelter in Place period, which is 3/17/2020 through 4/7/2020, will be awarded administrative leave programmatically for each hour worked up to a maximum of 128 hours for use at a later date. Pay Code CVL will be used when the employee takes off work and uses this administrative leave.

2. State employment status of employees eligible to receive the pay item (i.e. full time employees, part time employees)

RESPONSE #2: Full Time, part time, SAN, TAP

3. State the number of members or employees who are eligible to receive the pay item (i.e. all members or employees in a job classification eligible to receive the pay item, or "not to exceed one employee")

RESPONSE #3: Any County employee, including those working under TAP, who worked during the period of 3/17/2020 and 4/7/2020.

4. State whether pay item is for overtime or regular base pay

RESPONSE #4: Regular base pay

5. State whether pay item is calculated as a fixed amount or percentage of the base pay

RESPONSE #5: The pay code CVL is based on an eligible employee's hourly rate multiplied by the number of hours they took off from work and coded as CVL on their HRMS timesheet.

6. State whether the pay item is paid one time (i.e. incentive pay, referral pay, bonus, award)

RESPONSE #6: No

7. State whether the pay item is an ad hoc payment (i.e, stipend, payment for attending a meeting during the working hours, payment for attending a meeting during non-working hours)

RESPONSE #7: No

8. State whether the pay item is a reimbursement (i.e., car allowance, housing allowance, uniform allowance, mileage payment, cell phone allowance)

RESPONSE #8: No

9. State regular working hours of the employees who will receive the pay item (i.e., 37.5 hour workweek employees, 40 hour workweek employees)

RESPONSE #9: 37.5/40 hour workweek, part time, SAN, TAP

10. State whether pay item is for work performed outside of the regular workweek (i.e., payment for work or services performed outside of the employee's 37.5 hour workweek, or outside the employee's 40 hour workweek)

RESPONSE #10: No

11. State whether the pay item if for deferred compensation

RESPONSE #11: No

12. State whether the pay item is for retro payments

RESPONSE #12: No

13. State whether the pay item is for accrued unused leaves (i.e., sick leave, annual leave, floating holiday, vacation, comp time)

RESPONSE #13: No

14. State whether the payment is compensation that had previously been provided in kind to the member by the employer or paid directly by the employer to a third party other than the retirement system for the benefit of the member or employee

RESPONSE #14: No

15. State whether the payment is severance or other payment in connection with or in anticipation of a separation from employment (and state if this payment is made while employee is working)

RESPONSE #15: No

16. State whether the pay item is paid in one lump sum or biweekly (or over some other time period-monthly, quarterly, annually)

RESPONSE #16: Biweekly

17. State the basis for eligibility for the pay item (i.e., certification of completion of training program conducted by an accredited university, or employee assigned as supervisor of badge distribution)

RESPONSE #17:

Salary Ordinance 3-19.98

3-19.98 - Effective March 17, 2020, all County employees who are unable to work due to COVID-19 shall be given paid administrative leave within the period covering March 17, 2020 through April 7, 2020, which is the time period covered under the Shelter In Place Health Order issued on March 16, 2020. Additionally, those employees as determined by Department/Agency Heads who are required and able to work during the same time period shall be awarded administrative leave for each hour worked, up to a maximum of 128 hours, or a prorated maximum for employees who work less than a 40-hour regular work week. Awarded administrative leave will be available to use on a date determined by the County. Any unused administrative leave authorized under this subsection will not be paid out and will be forfeited at the end of the two (2) years cap or when the employee terminates from County employment, whichever is sooner.

ALAMEDA COUNTY
AUDITOR-CONTROLLER AGENCY
STEVE MANNING
AUDITOR-CONTROLLER/CLERK-RECORDER

REQUEST FOR ACERA'S REVIEW OF A NEW PAY ITEM/CODE

Employer Name:	County of Alameda
Date of Request	4/3/2020
Employer Department Submitting the Request	Auditor-Controller's Agency
Contact Person/Employer (include title/position)	Dawn Duffy
Contact Person Telephone incl area code	(510) 272-6383
Contact Person Email address	dawn.duffy@acgov.org
Pay Item Name (and code Number)	**FCV** FMLA COVID Adm Lv (COVAL) Used
Pay Item Effective Date per authorization:	4/8/2020 (tentative)
State if additional documentation is attached	No

NOTE: The following information is required before ACERA can review and respond to the request. To meet ACERA's requirements, please provide substantive responses below or on a separate paper and return , with this form, all of the supporting documentation prior to issuing (paying) the pay item to any employee who is an ACERA member.

1. State the job classification of employees eligible for the pay item (i.e. Job Code 0499-Nurse Practitioners II may receive this pay item)

RESPONSE #1:

All employees who worked during the COVID-19 Shelter in Place period, which is 3/17/2020 through 4/7/2020, will be awarded administrative leave programmatically for each hour worked up to a maximum of 128 hours for use at a later date. Pay Code FCV will be used when the employee takes off work, uses this administrative leave and has leave approved under the Family Medical Leave Act (FMLA).

2. State employment status of employees eligible to receive the pay item (i.e. full time employees, part time employees)

RESPONSE #2: Full Time, part time, SAN, TAP

3. State the number of members or employees who are eligible to receive the pay item (i.e. all members or employees in a job classification eligible to receive the pay item, or "not to exceed one employee")

RESPONSE #3: Any County employee with an approved FMLA claim that was granted COVAL and uses it.

4. State whether pay item is for overtime or regular base pay

RESPONSE #4: Regular base pay

5. State whether pay item is calculated as a fixed amount or percentage of the base pay

RESPONSE #5: The pay code FCV is based on an eligible employee's hourly rate multiplied by the number of hours taken off from work.

6. State whether the pay item is paid one time (i.e. incentive pay, referral pay, bonus, award)

RESPONSE #6: No

7. State whether the pay item is an ad hoc payment (i.e, stipend, payment for attending a meeting during the working hours, payment for attending a meeting during non-working hours)

RESPONSE #7: No

8. State whether the pay item is a reimbursement (i.e., car allowance, housing allowance, uniform allowance, mileage payment, cell phone allowance)

RESPONSE #8: No

9. State regular working hours of the employees who will receive the pay item (i.e., 37.5 hour workweek employees, 40 hour workweek employees)

RESPONSE #9: 37.5/40 hour workweek, part time, SAN, TAP

10. State whether pay item is for work performed outside of the regular workweek (i.e., payment for work or services performed outside of the employee's 37.5 hour workweek, or outside the employee's 40 hour workweek)

RESPONSE #10: No

11. State whether the pay item if for deferred compensation

RESPONSE #11: No

12. State whether the pay item is for retro payments

RESPONSE #12: No

13. State whether the pay item is for accrued unused leaves (i.e., sick leave, annual leave, floating holiday, vacation, comp time)

RESPONSE #13: No

14. State whether the payment is compensation that had previously been provided in kind to the member by the employer or paid directly by the employer to a third party other than the retirement system for the benefit of the member or employee

RESPONSE #14: No

15. State whether the payment is severance or other payment in connection with or in anticipation of a separation from employment (and state if this payment is made while employee is working)

RESPONSE #15: No

16. State whether the pay item is paid in one lump sum or biweekly (or over some other time period-monthly, quarterly, annually)

RESPONSE #16: Biweekly

17. State the basis for eligibility for the pay item (i.e., certification of completion of training program conducted by an accredited university, or employee assigned as supervisor of badge distribution)

RESPONSE #17:

Salary Ordinance 3-19.98

3-19.98 - Effective March 17, 2020, all County employees who are unable to work due to COVID-19 shall be given paid administrative leave within the period covering March 17, 2020 through April 7, 2020, which is the time period covered under the Shelter In Place Health Order issued on March 16, 2020. Additionally, those employees as determined by Department/Agency Heads who are required and able to work during the same time period shall be awarded administrative leave for each hour worked, up to a maximum of 128 hours, or a prorated maximum for employees who work less than a 40-hour regular work week. Awarded administrative leave will be available to use on a date determined

by the County. Any unused administrative leave authorized under this subsection will not be paid out and will be forfeited at the end of the two (2) years cap or when the employee terminates from County employment, whichever is sooner.

ALAMEDA COUNTY
AUDITOR-CONTROLLER AGENCY
STEVE MANNING
AUDITOR-CONTROLLER/CLERK-RECORDER

REQUEST FOR ACERA'S REVIEW OF A NEW PAY ITEM/CODE

Employer Name:	County of Alameda
Date of Request	3/24/2020
Employer Department Submitting the Request	Auditor-Controller's Agency
Contact Person/Employer (include title/position)	Dawn Duffy
Contact Person Telephone incl area code	(510) 272-6383
Contact Person Email address	dawn.duffy@acgov.org
Pay Item Name (and code Number)	**FER** FMLA Emerg Admin Lv (COVID-19)
Pay Item Effective Date per authorization:	03/08/2020
State if additional documentation is attached	No

NOTE: The following information is required before ACERA can review and respond to the request. To meet ACERA's requirements, please provide substantive responses below or on a separate paper and return , with this form, all of the supporting documentation prior to issuing (paying) the pay item to any employee who is an ACERA member.

1. State the job classification of employees eligible for the pay item (i.e. Job Code 0499-Nurse Practitioners II may receive this pay item)

RESPONSE #1:

All employees who are currently on approved FMLA leave will use the pay code FER during the COVID-19 Shelter in Place period, which is 3/17/2020 through 4/7/2020.

2. State employment status of employees eligible to receive the pay item (i.e. full time employees, part time employees)

RESPONSE #2: Full Time, part time, SAN, TAP

3. State the number of members or employees who are eligible to receive the pay item (i.e. all members or employees in a job classification eligible to receive the pay item, or "not to exceed one employee")

RESPONSE #3: Any County employee, including those working under TAP, can receive it.

4. State whether pay item is for overtime or regular base pay

RESPONSE #4: Regular base pay

5. State whether pay item is calculated as a fixed amount or percentage of the base pay

RESPONSE #5: The pay code FER is paid based on an eligible employee's hourly rate x the number of hours they work normally work.

6. State whether the pay item is paid one time (i.e. incentive pay, referral pay, bonus, award)

RESPONSE #6: No

7. State whether the pay item is an ad hoc payment (i.e, stipend, payment for attending a meeting during the working hours, payment for attending a meeting during non-working hours)

RESPONSE #7: No

8. State whether the pay item is a reimbursement (i.e., car allowance, housing allowance, uniform allowance, mileage payment, cell phone allowance)

RESPONSE #8: No

9. State regular working hours of the employees who will receive the pay item (i.e., 37.5 hour workweek employees, 40 hour workweek employees)

RESPONSE #9: 37.5/40 hour workweek, part time, SAN, TAP

10. State whether pay item is for work performed outside of the regular workweek (i.e., payment for work or services performed outside of the employee's 37.5 hour workweek, or outside the employee's 40 hour workweek)

RESPONSE #10: No

11. State whether the pay item if for deferred compensation

RESPONSE #11: No

12. State whether the pay item is for retro payments

RESPONSE #12: No

13. State whether the pay item is for accrued unused leaves (i.e., sick leave, annual leave, floating holiday, vacation, comp time)

RESPONSE #13: No

14. State whether the payment is compensation that had previously been provided in kind to the member by the employer or paid directly by the employer to a third party other than the retirement system for the benefit of the member or employee

RESPONSE #14: No

15. State whether the payment is severance or other payment in connection with or in anticipation of a separation from employment (and state if this payment is made while employee is working)

RESPONSE #15: No

16. State whether the pay item is paid in one lump sum or biweekly (or over some other time period-monthly, quarterly, annually)

RESPONSE #16: Biweekly

17. State the basis for eligibility for the pay item (i.e., certification of completion of training program conducted by an accredited university, or employee assigned as supervisor of badge distribution)

RESPONSE #17:

Salary Ordinance 3-19.98

3-19.98 - Effective March 17, 2020, all County employees who are unable to work due to COVID-19 shall be given paid administrative leave within the period covering March 17, 2020 through April 7, 2020, which is the time period covered under the Shelter In Place Health Order issued on March 16, 2020. Additionally, those employees as determined by Department/Agency Heads who are required and able to work during the same time period shall be awarded administrative leave for each hour worked, up to a maximum of 128 hours, or a prorated maximum for employees who work less than a 40-hour regular work week. Awarded administrative leave will be available to use on a date determined by the County. Any unused administrative leave authorized under this subsection will not be paid out and will be forfeited at the end of the two (2) years cap or when the employee terminates from County employment, whichever is sooner.

ALAMEDA COUNTY
AUDITOR-CONTROLLER AGENCY
STEVE MANNING

AUDITOR-CONTROLLER/CLERK-RECORDER

REQUEST FOR ACERA'S REVIEW OF A NEW PAY ITEM/CODE

Employer Name:	County of Alameda
Date of Request	4/3/2020
Employer Department Submitting the Request	Auditor-Controller's Agency
Contact Person/Employer (include title/position)	Dawn Duffy
Contact Person Telephone incl area code	(510) 272-6383
Contact Person Email address	dawn.duffy@acgov.org
Pay Item Name (and code Number)	**PCV** PDL COVID Adm Lv (COVAL) Used
Pay Item Effective Date per authorization:	4/8/2020 (tentative)
State if additional documentation is attached	No

NOTE: The following information is required before ACERA can review and respond to the request. To meet ACERA's requirements, please provide substantive responses below or on a separate paper and return , with this form, all of the supporting documentation prior to issuing (paying) the pay item to any employee who is an ACERA member.

1. State the job classification of employees eligible for the pay item (i.e. Job Code 0499-Nurse Practitioners II may receive this pay item)

RESPONSE #1:

All employees who worked during the COVID-19 Shelter in Place period, which is 3/17/2020 through 4/7/2020, will be awarded administrative leave programmatically for each hour worked up to a maximum of 128 hours for use at a later date. Pay Code PCV will be used when the employee takes off work, uses this administrative leave and has leave approved under the Pregnancy Disability Leave law (PDL).

2. State employment status of employees eligible to receive the pay item (i.e. full time employees, part time employees)

RESPONSE #2: Full Time, part time, SAN, TAP

3. State the number of members or employees who are eligible to receive the pay item (i.e. all members or employees in a job classification eligible to receive the pay item, or "not to exceed one employee")

RESPONSE #3: Any County employee with an approved PDL claim that was granted COVAL and uses it.

4. State whether pay item is for overtime or regular base pay

RESPONSE #4: Regular base pay

5. State whether pay item is calculated as a fixed amount or percentage of the base pay

RESPONSE #5: The pay code PCV is based on an eligible employee's hourly rate multiplied by the number of hours taken off from work.

6. State whether the pay item is paid one time (i.e. incentive pay, referral pay, bonus, award)

RESPONSE #6: No

7. State whether the pay item is an ad hoc payment (i.e, stipend, payment for attending a meeting during the working hours, payment for attending a meeting during non-working hours)

RESPONSE #7: No

8. State whether the pay item is a reimbursement (i.e., car allowance, housing allowance, uniform allowance, mileage payment, cell phone allowance)

RESPONSE #8: No

9. State regular working hours of the employees who will receive the pay item (i.e., 37.5 hour workweek employees, 40 hour workweek employees)

RESPONSE #9: 37.5/40 hour workweek, part time, SAN, TAP

10. State whether pay item is for work performed outside of the regular workweek (i.e., payment for work or services performed outside of the employee's 37.5 hour workweek, or outside the employee's 40 hour workweek)

RESPONSE #10: No

11. State whether the pay item if for deferred compensation

RESPONSE #11: No

12. State whether the pay item is for retro payments

RESPONSE #12: No

13. State whether the pay item is for accrued unused leaves (i.e., sick leave, annual leave, floating holiday, vacation, comp time)

RESPONSE #13: No

14. State whether the payment is compensation that had previously been provided in kind to the member by the employer or paid directly by the employer to a third party other than the retirement system for the benefit of the member or employee

RESPONSE #14: No

15. State whether the payment is severance or other payment in connection with or in anticipation of a separation from employment (and state if this payment is made while employee is working)

RESPONSE #15: No

16. State whether the pay item is paid in one lump sum or biweekly (or over some other time period-monthly, quarterly, annually)

RESPONSE #16: Biweekly

17. State the basis for eligibility for the pay item (i.e., certification of completion of training program conducted by an accredited university, or employee assigned as supervisor of badge distribution)

RESPONSE #17:

Salary Ordinance 3-19.98

3-19.98 - Effective March 17, 2020, all County employees who are unable to work due to COVID-19 shall be given paid administrative leave within the period covering March 17, 2020 through April 7, 2020, which is the time period covered under the Shelter In Place Health Order issued on March 16, 2020. Additionally, those employees as determined by Department/Agency Heads who are required and able to work during the same time period shall be awarded administrative leave for each hour worked, up to a maximum of 128 hours, or a prorated maximum for employees who work less than a 40-hour regular work week. Awarded administrative leave will be available to use on a date determined

by the County. Any unused administrative leave authorized under this subsection will not be paid out and will be forfeited at the end of the two (2) years cap or when the employee terminates from County employment, whichever is sooner.

Human Resource Services

AGENDA NO._____ March 24, 2020

Lakeside Plaza Building
1401 Lakeside Drive, Suite 200
Oakland, CA 94612-4305
TDD: (510) 272-3703

March 24, 2020

Honorable Board of Supervisors
County of Alameda
1221 Oak Street, Suite 536
Oakland, California 94612-4305

SUBJECT: ADOPT AN URGENCY SALARY ORDINANCE AMENDMENT TO ADD SUBSECTION 3-19.98 (COVID-19 PAID ADMINISTRATIVE LEAVE) TO ARTICLE 3

Dear Board Members:

RECOMMENDATION:

On an urgency basis due to the health and safety of all County employees and its residents, adopt a Salary Ordinance amendment to add subsection 3-19.98 (COVID-19 PAID ADMINISTRATIVE LEAVE) to Article 3, Section 3-21 (MISCELLANEOUS) to: 1) provide paid administrative leave for employees who are unable to work and impacted by the Order of the Health Offer of the County of Alameda for the time period beginning March 17, 2020 through April 7, 2020, as issued by the Alameda County Health Officer on March 16, 2020; and 2) award administrative leave for employees who are required and able to work, for each hour worked (up to a maximum of 128 hours) during the time period of March 17, 2020 through April 7, 2020.

DISCUSSION/SUMMARY:

On March 16, 2020, the County joined six (6) other Bay Area public health jurisdictions in issuing a Shelter In Place Order ("Order") by the Health Officers for their respective jurisdictions for the time period covering March 17, 2020 through April 7, 2020, in order to slow the spread of COVID-19. The Order limits activity, travel and business functions to only the most essential needs. On March 17, 2020, your Board took immediate and unprecedented actions to address the urgency of this event by authorizing measures to ensure the County maintains a sufficient core of employees who will work either onsite or remotely as well as enable employees to balance their personal needs with their public service obligations, which includes the following: 1) to provide paid administrative leave for employees who are unable to work and impacted by the Shelter In Place Health Order for the time period of March 17, 2020 through April 7, 2020; and 2) to award administrative leave for each hour worked, up to a maximum of 128 hours (prorated maximum for employees who work less than a 40-hour regular work week), for the time period of March 17, 2020 through April 7, 2020. The implementation of the latter will include that administrative leave be available for use on a date to be determined by the County and employees will have a cap of two (2) years to exhaust such granted administrative leave. Any unused administrative leave will not be paid out and will be forfeited at the end of the two (2) years cap or when the employee terminates from County employment, whichever is sooner. Additionally, if a longer cap is deemed necessary for a limited number of classifications due to operational needs of a department/agency, staff will request for authority on a future date.

FINANCING:

Funds are available in the 2019-2020 Approved Budget and will be included in future years' requested budgets to cover the costs resulting from the applicable actions.

VISION 2026 GOAL:

The Salary Ordinance amendments meet the 10x goal pathways of **Employment for All** in support of our shared vision of a **Prosperous and Vibrant Economy**.

Very truly yours,

DocuSigned by:
Joe Angelo
2CC022F934DA404...
Joe Angelo, Director
Human Resource Services

c: CAO
Auditor-Controller
County Counsel
Agency/Department Heads

Approved as to Form
DONNA ZIEGLER, County Counsel

By [signature]
Kristy van Herick, Asst. County Counsel

AN URGENCY ORDINANCE AMENDING
CERTAIN PROVISIONS OF THE 2019 – 2020
COUNTY OF ALAMEDA SALARY ORDINANCE

The Board of Supervisors of the County of Alameda ordains as follows:

SECTION I

In enacting this Urgency Ordinance, the Board of Supervisors of the County of Alameda makes these findings:

1. On March 1 and 5, 2020, the Health Officer of the County of Alameda issued Declarations of Local Health Emergency due to the existence of COVID-19 within the County.
2. On March 4, 2020, Governor Gavin Newsom issued a Proclamation of a State of Emergency based on the spread of COVID-19.
3. On March 10, 2020, the Board of Supervisors of the County of Alameda passed a Resolution Ratifying the Declaration of Local Health Emergency, and Governor Newsom's March 12, 2020 Executive Order N-25-20.
4. On March 16, 2020, the County Health Officer issued a Shelter In Place Order ("Order"), in conjunction with Orders by six (6) other Bay Area public health jurisdictions, for the time period covering March 17, 2020 through April 7, 2020, in order to slow the spread of COVID-19.
5. On March 17, 2020, due to the immediate threat to public health and safety, and the welfare of County residents and employees, the Board took immediate and unprecedented actions to ensure that the County maintains a sufficient core of employees working either onsite or remotely as well as ensuring that employees do not exhaust leave balances while off of work due to COVID-19 related quarantine, isolation, school and childcare closures, and other related absences during the period covered by the March 16, 2020 Order.
6. An amendment to the County of Alameda Salary Ordinance is required in order to provide for administrative leave pay for employees related to COVID-19 and the March 16, 2020 Order.
7. State law allows the County to adopt an urgency ordinance for the immediate preservation of the public peace, health, or safety, which shall contain a declaration of the facts constituting the urgency and shall be passed by a four-fifths vote of the Board of Supervisors.

SECTION II

Article 3, Section 3-21 of the County of Alameda Salary Ordinance is hereby <u>amended</u> by the addition of subsection 3-19.98 as follows, to be effective <u>March 17, 2020</u>:

3-19.98 - Effective March 17, 2020, all County employees who are unable to work due to COVID-19 shall be given paid administrative leave within the period covering March 17, 2020 through April 7, 2020, which is the time period covered under the Shelter In Place Health Order issued on March 16, 2020. Additionally, those employees as determined by Department/Agency Heads who are required and able to work during the same time period shall be awarded administrative leave for each hour worked, up to a maximum of 128 hours, or a prorated maximum for employees who work less than a 40-hour regular work week. Awarded administrative leave will be available to use on a date determined

by the County. Any unused administrative leave authorized under this subsection will not be paid out and will be forfeited at the end of the two (2) years cap or when the employee terminates from County employment, whichever is sooner.

SECTION III

This ordinance shall take effect immediately, and before the expiration of fifteen days after its passage, shall be published once with the names of the members voting for and against it in the Inter-City Express, a newspaper published the County of Alameda.

Gov. Code Sec. 31461. (a) "Compensation earnable" by a member means the average compensation as determined by the board, for the period under consideration upon the basis of the average number of days ordinarily worked by persons in the same grade or class of positions during the period, and at the same rate of pay. The computation for any absence shall be based on the compensation of the position held by the member at the beginning of the absence. Compensation, as defined in Section 31460, that has been deferred shall be deemed "compensation earnable" when earned, rather than when paid.

(b) "Compensation earnable" does not include, in any case, the following:

(1) Any compensation determined by the board to have been paid to enhance a member's retirement benefit under that system. That compensation may include:

(A) Compensation that had previously been provided in kind to the member by the employer or paid directly by the employer to a third party other than the retirement system for the benefit of the member, and which was converted to and received by the member in the form of a cash payment in the final average salary period.

(B) Any one-time or ad hoc payment made to a member, but not to all similarly situated members in the member's grade or class.

(C) Any payment that is made solely due to the termination of the member's employment, but is received by the member while employed, except those payments that do not exceed what is earned in each 12-month period during the final average salary period regardless of when reported or paid.

(2) Payments for unused vacation, annual leave, personal leave, sick leave, or compensatory time off, however denominated, whether paid in a lump sum or otherwise, in an amount that exceeds that which may be earned in each 12-month period during the final average salary period, regardless of when reported or paid.

(3) Payments for additional services rendered outside of normal working hours, whether paid in a lump sum or otherwise.

(4) Payments made at the termination of employment, except those payments that do not exceed what is earned in each 12-month period during the final average salary period, regardless of when reported or paid.

Gov. Code Sec. 7522.34. (a) "Pensionable compensation" of a new member of any public retirement system means the normal monthly rate of pay or base pay of the member paid in cash to similarly situated members of the same group or class of employment for services rendered on a full-time basis during normal working hours, pursuant to publicly available pay schedules.

(b) Compensation that has been deferred shall be deemed pensionable compensation when earned rather than when paid.

(c) "Pensionable compensation" does not include the following:

(1) Any compensation determined by the board to have been paid to increase a member's retirement benefit under that system.

(2) Compensation that had previously been provided in kind to the member by the employer or paid directly by the employer to a third party other than the retirement system for the benefit of the member and which was converted to and received by the member in the form of a cash payment.

(3) Any one-time or ad hoc payments made to a member.

(4) Severance or any other payment that is granted or awarded to a member in connection with or in anticipation of a separation from employment, but is received by the member while employed.

(5) Payments for unused vacation, annual leave, personal leave, sick leave, or compensatory time off, however denominated, whether paid in a lump sum or otherwise, regardless of when reported or paid.

(6) Payments for additional services rendered outside of normal working hours, whether paid in a lump sum or otherwise.

(7) Any employer-provided allowance, reimbursement, or payment, including, but not limited to, one made for housing, vehicle, or uniforms.

(8) Compensation for overtime work, other than as defined in Section 207(k) of Title 29 of the United States Code.

(9) Employer contributions to deferred compensation or defined contribution plans.

(10) Any bonus paid in addition to the compensation described in subdivision (a).

(11) Any other form of compensation a public retirement board determines is inconsistent with the requirements of subdivision (a).

(12) Any other form of compensation a public retirement board determines should not be pensionable compensation.

Approve Staff Recommendations for Adoption of New Pay Codes for Alameda Health System

ACERA

MEMORANDUM TO THE BOARD OF RETIREMENT

DATE: April 16, 2020

TO: Members of the Board of Retirement

FROM: Sandra Dueñas-Cuevas, Benefits Manager SDC

SUBJECT: **Approval of Three New Alameda Health System Pay Codes as "Compensation Earnable" and " Pensionable Compensation"**

Alameda Health System (AHS) is implementing benefits for AHS employees, including leave time for those who will miss work because of circumstances due to the COVID19 crisis.

AHS requested that the following three new pay codes be designated as "compensation earnable" and "pensionable compensation":

- 12A – COVID-19 ADMIN LEAVE: Will be used when AHS directs an employee to stay off work because of contact with a Patient Under Investigation (PUI).

- 12B – COVID-19 EPSL / PESL (Paid Sick Leave): Will be used when an employee must stay off work to care for self or others.

- 12C – COVID-19 PEFL (FMLA): Will be used when an employee needs to stay off work because of illness due to COVID-19, care for family member who is ill due to COVID-19 or due to school or daycare closure.

The pay codes may be used at different times during an employee's absence from work, but all three will be used for base pay at the normal rate, for the normal number of hours the employee works during normal working hours. Staff, including Chief Counsel, reviewed and discussed the required supporting documentation (attached) with the AHS Retirement Plans Administrator and made the administrative determination that the new pay codes qualify as "compensation earnable" under Government Code Section 31461 (for Legacy members) and "pensionable compensation" under Government Code Section 7522.34 (for PEPRA members). The two relevant Government Code sections are attached for the Board's review.

Staff informed AHS that staff's administrative determination will be on the Board's consent calendar for approval at the Board's April 16, 2020 meeting. If this item is not pulled from the consent calendar for discussion, then the Board will approve staff's determinations that the three pay codes are all "compensation earnable" under Government Code Section 31461 (for Legacy members) and "pensionable compensation" under Government Code Section 7522.34 (for PEPRA members).

Attachments

REQUEST FOR ACERA APPROVAL OF NEW PAY CODE

Employer Name: **ALAMEDA HEALTH SYSTEM** Date: 04-01-2020

Contact Person/Employer (include title/position): **Cynthia Enriquez, Retirement Plans Administrator**

Contact Person Telephone: **(510) 618-2141** Email: **cyenriquez@alamedahealthsystem.org**

Pay Item Name (and code number): 12A- COVID-19 ADMN LEAVE

12A- COVID-19 ADMN LEAVE will be used when AHS directs an employee to stay home because of contact with a Patient Under Investigation (PUI). Full Pay Rate.

The following information is required before ACERA can review and respond to your request. Please provide substantive responses on separate paper and return with this form prior to issuing (paying) the pay item to any employee who is an ACERA member.

1. State the job classification of employees eligible for the pay item (i.e., Job Code 0499- Nurse Practitioners II may receive this pay item).

All full time and part time employees, including services as needed (SAN) employees.

2. State employment status of employees eligible to receive the pay item (i.e., full time employees, part time employees)

All full time and part time employees, including services as needed (SAN) employees.

3. State the number of members or employees who are eligible to receive the pay item (i.e., all members or employers in a job classification eligible to receive the pay item, or "not to exceed one employee")

All full time and part time employees, including services as needed (SAN) employees.

4. State whether pay item is for overtime or regular base pay.

   Regular base pay

5. State whether pay item is calculated as a fixed amount or percentage of the base pay.

   Fixed amount

6. State whether the pay item is paid one time (i.e., incentive pay, referral pay, bonus, award).

During the COVID-19 crisis

7. State whether the pay item is an ad hoc payment (i.e., stipend, payment for attending a meeting during working hours, payment for attending a meeting during non working hours).

   No

8. State whether the pay item is a reimbursement (i.e., car allowance, housing allowance, uniform allowance, mileage payment, cell phone allowance).

   No

9. State regular working hours of the employees who will receive the pay item (i.e., 37.5 hour workweek employees, 40 hour workweek employees).

   All shifts

10. State whether pay item is for work performed outside of the regular workweek (i.e., payment for work or services performed outside of the employee's 37.5 hour work week, or outside of the employee's 40 hour work week).

    No

11. State whether the pay item is for deferred compensation.

    No

12. State whether the pay item is for retro payments.

    No

13. State whether the pay item is for accrued unused leave (i.e., sick leave, annual leave, floating holiday, vacation, comp time).

    No

14. State whether the payment is compensation that had previously been provided in kind to the member by the employer or paid directly by the employer to a third party other than the retirement system for the benefit of the member or employee.

    No

15. State whether the payment is severance or other payment in connection with or in anticipation of a separation from employment (and state if this payment is made while employee is working).

No

16. State whether the pay item is paid in one lump sum or bi-weekly (or over some other time period-monthly, quarterly, annually).

Per pay period, in lieu of regular earnings.

17. State the basis for eligibility for the pay item (i.e., certification of completion of training program conducted by an accredited university, or employee assigned as supervisor of badge distribution).

Determination made by the employee's manager.

REQUEST FOR ACERA APPROVAL OF NEW PAY CODE

Employer Name: __ALAMEDA HEALTH SYSTEM__ Date: 04-01-2020

Contact Person/Employer (include title/position): **Cynthia Enriquez, Retirement Plans Administrator**

Contact Person Telephone: **(510) 618-2141** Email: **cyenriquez@alamedahealthsystem.org**

Pay Item Name (and code number): **12B- COVID-19 EPSL / PESL (Paid Sick Leave)**

12B- COVID-19 EPSL / PESL (Paid Sick Leave) will be used when a local authority or physician directs an employee to stay home because of COVID-19 related symptoms/test (first 14 days), or employee is away from work to care for a COVID-19 patient. Full Pay Rate.

The following information is required before ACERA can review and respond to your request. Please provide substantive responses on separate paper and return with this form prior to issuing (paying) the pay item to any employee who is an ACERA member.

1. State the job classification of employees eligible for the pay item (i.e., Job Code 0499- Nurse Practitioners II may receive this pay item).

All full time and part time employees, including services as needed (SAN) employees.

2. State employment status of employees eligible to receive the pay item (i.e., full time employees, part time employees)

All full time and part time employees, including services as needed (SAN) employees.

3. State the number of members or employees who are eligible to receive the pay item (i.e., all members or employers in a job classification eligible to receive the pay item, or "not to exceed one employee")

All full time and part time employees, including services as needed (SAN) employees.

4. State whether pay item is for overtime or regular base pay.

   Regular base pay

5. State whether pay item is calculated as a fixed amount or percentage of the base pay.

   Fixed amount

6. State whether the pay item is paid one time (i.e., incentive pay, referral pay, bonus, award).

   During the COVID-19 crisis

7. State whether the pay item is an ad hoc payment (i.e., stipend, payment for attending a meeting during working hours, payment for attending a meeting during non working hours).

   No

8. State whether the pay item is a reimbursement (i.e., car allowance, housing allowance, uniform allowance, mileage payment, cell phone allowance).

   No

9. State regular working hours of the employees who will receive the pay item (i.e., 37.5 hour workweek employees, 40 hour workweek employees).

   All shifts

10. State whether pay item is for work performed outside of the regular workweek (i.e., payment for work or services performed outside of the employee's 37.5 hour work week, or outside of the employee's 40 hour work week).

    No

11. State whether the pay item is for deferred compensation.

    No

12. State whether the pay item is for retro payments.

    No

13. State whether the pay item is for accrued unused leave (i.e., sick leave, annual leave, floating holiday, vacation, comp time).

    No

14. State whether the payment is compensation that had previously been provided in kind to the member by the employer or paid directly by the employer to a third party other than the retirement system for the benefit of the member or employee.

    No

15. State whether the payment is severance or other payment in connection with or in anticipation of a separation from employment (and state if this payment is made while employee is working).

No

16. State whether the pay item is paid in one lump sum or bi-weekly (or over some other time period-monthly, quarterly, annually).

Per pay period, in lieu of regular earnings.

17. State the basis for eligibility for the pay item (i.e., certification of completion of training program conducted by an accredited university, or employee assigned as supervisor of badge distribution).

Determination made by the employee's manager.

REQUEST FOR ACERA APPROVAL OF NEW PAY CODE

Employer Name: **ALAMEDA HEALTH SYSTEM** Date: 04-01-2020

Contact Person/Employer (include title/position): **Cynthia Enriquez, Retirement Plans Administrator**

Contact Person Telephone: **(510) 618-2141** Email: **cyenriquez@alamedahealthsystem.org**

Pay Item Name (and code number): **12C-COVID-19 PEFL (FMLA)**

12C-COVID-19 PEFL (FMLA) will be used when an employee needs to stay off work for more than 2 weeks because of (Full Pay Rate up to 12 weeks.):

- illness due to COVID-19, - OR -
- care for family member who is ill due to COVID-19, - OR -
- due to school or daycare closures

Employees do not need to qualify for FMLA to be entitled to Paid Emergency Sick Leave or Paid Emergency Family Leave. Our Leave Administrator, Matrix, will track the hours used as will Payroll.

The following information is required before ACERA can review and respond to your request. Please provide substantive responses on separate paper and return with this form prior to issuing (paying) the pay item to any employee who is an ACERA member.

1. State the job classification of employees eligible for the pay item (i.e., Job Code 0499-Nurse Practitioners II may receive this pay item).

All full time and part time employees, including services as needed (SAN) employees.

2. State employment status of employees eligible to receive the pay item (i.e., full time employees, part time employees)

All full time and part time employees, including services as needed (SAN) employees.

3. State the number of members or employees who are eligible to receive the pay item (i.e., all members or employers in a job classification eligible to receive the pay item, or "not to exceed one employee")

All full time and part time employees, including services as needed (SAN) employees.

4. State whether pay item is for overtime or regular base pay.

   Regular base pay

5. State whether pay item is calculated as a fixed amount or percentage of the base pay.

   Fixed amount

6. State whether the pay item is paid one time (i.e., incentive pay, referral pay, bonus, award).

   During the COVID-19 crisis

7. State whether the pay item is an ad hoc payment (i.e., stipend, payment for attending a meeting during working hours, payment for attending a meeting during non working hours).

   No

8. State whether the pay item is a reimbursement (i.e., car allowance, housing allowance, uniform allowance, mileage payment, cell phone allowance).

   No

9. State regular working hours of the employees who will receive the pay item (i.e., 37.5 hour workweek employees, 40 hour workweek employees).

   All shifts

10. State whether pay item is for work performed outside of the regular workweek (i.e., payment for work or services performed outside of the employee's 37.5 hour work week, or outside of the employee's 40 hour work week).

    No

11. State whether the pay item is for deferred compensation.

    No

12. State whether the pay item is for retro payments.

    No

13. State whether the pay item is for accrued unused leave (i.e., sick leave, annual leave, floating holiday, vacation, comp time).

    No

14. State whether the payment is compensation that had previously been provided in kind to the member by the employer or paid directly by the employer to a third party other than the retirement system for the benefit of the member or employee.

    No

15. State whether the payment is severance or other payment in connection with or in anticipation of a separation from employment (and state if this payment is made while employee is working).

    No

16. State whether the pay item is paid in one lump sum or bi-weekly (or over some other time period-monthly, quarterly, annually).

    Per pay period, in lieu of regular earnings.

17. State the basis for eligibility for the pay item (i.e., certification of completion of training program conducted by an accredited university, or employee assigned as supervisor of badge distribution).

    Determination made by the employee's manager.

ALAMEDA HEALTH SYSTEM

MEMORANDUM

TO: All AHS Employees

FROM: Tony Redmond, Chief Human Resource Officer

DATE: March 30, 2020

SUBJECT: Supporting Our Workforce - Leave Policy Changes

In a separate communication today, we let you know about an addition to our benefits supporting employees who need emergency backup care for elders or children to allow you to be able to come to work. There may however be times however that you are unable to come to work because of illness or other circumstances caused by the COVID-19 pandemic.
As we communicated on Thursday March 26th, Congress passed legislation entitled the *Families First Coronavirus Response Act* ("the Act"), the Act addresses employment issues related to the spread of the virus.

Leave benefits have been extended and enhanced to protect employees who will miss work because of the virus or will be challenged to continue working because of school closures. The legislation covers most employees who are not in healthcare provider positions.

AHS decided to implement the benefits for all employees at AHS and to provide support at levels higher than what is required under the legislation. Below is a summary of coverage AHS is providing and attached with this e-mail is a set of scenarios with who to contact and manager and employee's responsibility.

1) Paid Administrative Leave For Employees Who AHS Requires To Stay Away From Work: Any employee *required by AHS* to stay away from work due to exposure to the virus shall be placed on paid administrative leave for up to 14 days. If the employee is unable to return to work at the end of the 14-day period, the employee will be provided extended leave benefits and job protection, as outlined below.

2) Paid Emergency Sick Leave (PESL):

   Employees will be entitled to take up to 14 days of PESL consistent with the Act. Specifically, PESL may be used for COVID-19 related absences due to Care for Self (quarantine, self-quarantine, diagnosis or treatment) or Care for Others (care for quarantined individual, childcare) AHS will pay employees at their full (regular) rate of pay for PESL.

3) Paid Emergency Family Medical Leave Act Leave (PEFMLA):

   Consistent with the Act, Employees will be entitled to take a PEFMLA leave of up to 14 days because of exposure to COVID-19, to care for a family member because of exposure to COVID-19, or because of school/childcare closure related to COVID-19.

If an employee cannot return to work after the initial 14-day period, the employee is entitled to an additional 10 weeks of PEFMLA leave. During this extended period of leave the employee will be paid their full (regular) rate of pay.

We continue to review are current benefits considering this evolving situation and if needed and possible we will make additional changes to those benefits.

Gov. Code Sec. 31461. (a) "Compensation earnable" by a member means the average compensation as determined by the board, for the period under consideration upon the basis of the average number of days ordinarily worked by persons in the same grade or class of positions during the period, and at the same rate of pay. The computation for any absence shall be based on the compensation of the position held by the member at the beginning of the absence. Compensation, as defined in Section 31460, that has been deferred shall be deemed "compensation earnable" when earned, rather than when paid.

(b) "Compensation earnable" does not include, in any case, the following:

(1) Any compensation determined by the board to have been paid to enhance a member's retirement benefit under that system. That compensation may include:

(A) Compensation that had previously been provided in kind to the member by the employer or paid directly by the employer to a third party other than the retirement system for the benefit of the member, and which was converted to and received by the member in the form of a cash payment in the final average salary period.

(B) Any one-time or ad hoc payment made to a member, but not to all similarly situated members in the member's grade or class.

(C) Any payment that is made solely due to the termination of the member's employment, but is received by the member while employed, except those payments that do not exceed what is earned in each 12-month period during the final average salary period regardless of when reported or paid.

(2) Payments for unused vacation, annual leave, personal leave, sick leave, or compensatory time off, however denominated, whether paid in a lump sum or otherwise, in an amount that exceeds that which may be earned in each 12-month period during the final average salary period, regardless of when reported or paid.

(3) Payments for additional services rendered outside of normal working hours, whether paid in a lump sum or otherwise.

(4) Payments made at the termination of employment, except those payments that do not exceed what is earned in each 12-month period during the final average salary period, regardless of when reported or paid.

Gov. Code Sec. 7522.34. (a) "Pensionable compensation" of a new member of any public retirement system means the normal monthly rate of pay or base pay of the member paid in cash to similarly situated members of the same group or class of employment for services rendered on a full-time basis during normal working hours, pursuant to publicly available pay schedules.

(b) Compensation that has been deferred shall be deemed pensionable compensation when earned rather than when paid.

(c) "Pensionable compensation" does not include the following:

(1) Any compensation determined by the board to have been paid to increase a member's retirement benefit under that system.

(2) Compensation that had previously been provided in kind to the member by the employer or paid directly by the employer to a third party other than the retirement system for the benefit of the member and which was converted to and received by the member in the form of a cash payment.

(3) Any one-time or ad hoc payments made to a member.

(4) Severance or any other payment that is granted or awarded to a member in connection with or in anticipation of a separation from employment, but is received by the member while employed.

(5) Payments for unused vacation, annual leave, personal leave, sick leave, or compensatory time off, however denominated, whether paid in a lump sum or otherwise, regardless of when reported or paid.

(6) Payments for additional services rendered outside of normal working hours, whether paid in a lump sum or otherwise.

(7) Any employer-provided allowance, reimbursement, or payment, including, but not limited to, one made for housing, vehicle, or uniforms.

(8) Compensation for overtime work, other than as defined in Section 207(k) of Title 29 of the United States Code.

(9) Employer contributions to deferred compensation or defined contribution plans.

(10) Any bonus paid in addition to the compensation described in subdivision (a).

(11) Any other form of compensation a public retirement board determines is inconsistent with the requirements of subdivision (a).

(12) Any other form of compensation a public retirement board determines should not be pensionable compensation.

Adoption of New Pay Codes for Superior Court

ACERA

MEMORANDUM TO THE BOARD OF RETIREMENT

DATE:	April 16, 2020
TO:	Members of the Board of Retirement
FROM:	Sandra Dueñas-Cuevas, Benefits Manager SDC
SUBJECT:	**Approval of Two New Court Pay Codes as "Compensation Earnable" and " Pensionable Compensation"**

The Court has created two new pay codes to track paid administrative leave for employees who do not work during of Court's public closure due to the Shelter in Place Orders issued by the Alameda County Public Health Department and Governor Gavin Newsom.

Effective March 30, 2020, the Court requested that the following two new pay codes be designated as "compensation earnable" and "pensionable compensation":

- Administrative Hours, code# 378, for positions not funded by a grant.
- Administrative Hours – Grants, code# 373, for positions funded by a grant.

The two new pay codes are used for base pay at the normal rate, for the normal number of hours that the employee works during normal working hours. Staff, including Chief Counsel, reviewed and discussed the required supporting documentation (attached) with the Court's Director of Finance and Facilities and made the administrative determination that the new pay codes qualify as "compensation earnable" under Government Code Section 31461 (for Legacy members) and "pensionable compensation" under Government Code Section 7522.34 (for PEPRA members). The two relevant Government Code sections are attached for the Board's review.

Staff informed the Courts that staff's administrative determination will be on the Board's consent calendar for approval at the Board's April 16, 2020 meeting. If this item is not pulled from the consent calendar for discussion, then the Board will approve staff's determinations that the two pay codes are "compensation earnable" under Government Code Section 31461 (for Legacy members) and "pensionable compensation" under Government Code Section 7522.34 (for PEPRA members).

Attachments

Exhibit 2

REQUEST FOR ACERA'S REVIEW

OF A NEW PAY ITEM/CODE

Employer Name: Superior Court of California, County of Alameda

Date: __3/24/2020____________

Contact Person/Employer (include title/position): _Jan Tillman/Senior Accountant (additionally: Sarah Ybarra/Payroll Specialist)

Contact Person Telephone: 510-891-6215 (Jan Tillman) or 510-891-6226 (Sarah Ybarra)

Email: Payrollunit@alameda.courts.ca.gov or jtillman@alameda.courts.ca.gov

Pay Item Name (and code number): Administrative Hours - Grants; code# 373

The following information is required before ACERA can review and respond to your request. Please provide substantive responses on separate paper and return with this form prior to issuing (paying) the pay item to any employee who is an ACERA member.

1. State the job classification of employees eligible for the pay item (i.e., Job Code 0499-Nurse Practitioners II may receive this pay item).
2. State employment status of employees eligible to receive the pay item (i.e., full time employees, part time employees)
3. State the number of members or employees who are eligible to receive the pay item (i.e., all members or employers in a job classification eligible to receive the pay item, or "not to exceed one employee")
4. State whether pay item is for overtime or regular base pay.
5. State whether pay item is calculated as a fixed amount or percentage of the base pay.
6. State whether the pay item is paid one time (i.e., incentive pay, referral pay, bonus, award).

7. State whether the pay item is an ad hoc payment (i.e., stipend, payment for attending a meeting during working hours, payment for attending a meeting during non working hours).

8. State whether the pay item is a reimbursement (i.e., car allowance, housing allowance, uniform allowance, mileage payment, cell phone allowance)

9. State regular working hours of the employees who will receive the pay item (i.e., 37.5 hour workweek employees, 40 hour workweek employees)

10. State whether pay item is for work performed outside of the regular workweek (i.e., payment for work or services performed outside of the employee's 37.5 hour work week, or outside of the employee's 40 hour work week)

11. State whether the pay item is for deferred compensation.

12. State whether the pay item is for retro payments.

13. State whether the pay item is for accrued unused leave (i.e., sick leave, annual leave, floating holiday, vacation, comp time)

14. State whether the payment is compensation that had previously been provided in kind to the member by the employer or paid directly by the employer to a third party other than the retirement system for the benefit of the member or employee.

15. State whether the payment is severance or other payment in connection with or in anticipation of a separation from employment (and state if this payment is made while employee is working)

16. State whether the pay item is paid in one lump sum or bi-weekly (or over some other time period-monthly, quarterly, annually)

17. State the basis for eligibility for the pay item (i.e., certification of completion of training program conducted by an accredited university, or employee assigned as supervisor of badge distribution).

1. All job classifications eligible
2. Part Time and Full Time
3. All members in all job classifications eligible to receive this pay code
4. Regular base pay
5. Calculated as same amount of Base Pay (hour for hour)
6. This is not a one-time payment
7. Payment for not attending work due to Court Closure
8. Not a reimbursement
9. All employees eligible to receive pay: 37.5 and 40 hours (including Part Time)
10. This is not for payment outside regular work week
11. Not for deferred compensation
12. Not for retro payments
13. Not for accrued unused leave
14. Not for compensation that had previously been provided
15. Not for severance or separation
16. Paid bi-weekly, based on Hours
17. employee must be eligible to receive regular wages

Exhibit 2

REQUEST FOR ACERA'S REVIEW

OF A NEW PAY ITEM/CODE

Employer Name: Superior Court of California, County of Alameda

Date: __3/24/2020____________

Contact Person/Employer (include title/position): _Jan Tillman/Senior Accountant (additionally: Sarah Ybarra/Payroll Specialist)

Contact Person Telephone: 510-891-6215 (Jan Tillman) or 510-891-6226 (Sarah Ybarra)

Email: Payrollunit@alameda.courts.ca.gov or jtillman@alameda.courts.ca.gov

Pay Item Name (and code number): __Administrative Hours; code# 378

The following information is required before ACERA can review and respond to your request. Please provide substantive responses on separate paper and return with this form prior to issuing (paying) the pay item to any employee who is an ACERA member.

1. State the job classification of employees eligible for the pay item (i.e., Job Code 0499-Nurse Practitioners II may receive this pay item).
2. State employment status of employees eligible to receive the pay item (i.e., full time employees, part time employees)
3. State the number of members or employees who are eligible to receive the pay item (i.e., all members or employers in a job classification eligible to receive the pay item, or "not to exceed one employee")
4. State whether pay item is for overtime or regular base pay.
5. State whether pay item is calculated as a fixed amount or percentage of the base pay.
6. State whether the pay item is paid one time (i.e., incentive pay, referral pay, bonus, award).

7. State whether the pay item is an ad hoc payment (i.e., stipend, payment for attending a meeting during working hours, payment for attending a meeting during non working hours).

8. State whether the pay item is a reimbursement (i.e., car allowance, housing allowance, uniform allowance, mileage payment, cell phone allowance)

9. State regular working hours of the employees who will receive the pay item (i.e., 37.5 hour workweek employees, 40 hour workweek employees)

10. State whether pay item is for work performed outside of the regular workweek (i.e., payment for work or services performed outside of the employee's 37.5 hour work week, or outside of the employee's 40 hour work week)

11. State whether the pay item is for deferred compensation.

12. State whether the pay item is for retro payments.

13. State whether the pay item is for accrued unused leave (i.e., sick leave, annual leave, floating holiday, vacation, comp time)

14. State whether the payment is compensation that had previously been provided in kind to the member by the employer or paid directly by the employer to a third party other than the retirement system for the benefit of the member or employee.

15. State whether the payment is severance or other payment in connection with or in anticipation of a separation from employment (and state if this payment is made while employee is working)

16. State whether the pay item is paid in one lump sum or bi-weekly (or over some other time period-monthly, quarterly, annually)

17. State the basis for eligibility for the pay item (i.e., certification of completion of training program conducted by an accredited university, or employee assigned as supervisor of badge distribution).

1. All job classifications eligible
2. Part Time and Full Time
3. All members in all job classifications eligible to receive this pay code
4. Regular base pay
5. Calculated as same amount of Base Pay (hour for hour)
6. This is not a one-time payment
7. Payment for not attending work due to Court Closure
8. Not a reimbursement
9. All employees eligible to receive pay: 37.5 and 40 hours (including Part Time)
10. This is not for payment outside regular work week
11. Not for deferred compensation
12. Not for retro payments
13. Not for accrued unused leave
14. Not for compensation that had previously been provided
15. Not for severance or separation
16. Paid bi-weekly, based on Hours
17. employee must be eligible to receive regular wages

Superior Court of California
COUNTY OF ALAMEDA

Finance and Facilities Division
René C. Davidson Courthouse
1225 Fallon Street, Oakland, CA 94612
Telephone: (510) 891-6014

Memorandum

Date:	April 2, 2020	**Action Requested:**	Please Review
To:	ALL COURT STAFF		
From:	Melanie Lewis, Director	**Contact:**	payrollunit@alameda.courts.ca.gov

Subject: Timecard Completion During Public Closure Period

As of the pay period beginning with March 30, 2020, employees will be expected to resume completion of their own timecards. Given the ability to access Workday remotely, we hope that this will not prove to be an issue. The submission and approval deadlines remain unchanged. Employees must submit timecards by close of business the Friday before payday. The next deadline for employees to complete their timecards is 5:00 p.m. Friday, April 10, 2020. The next deadline for Managers/Supervisors to complete time entry approvals is Monday, April 13, 2020 at 12:00 p.m.

Employees who fail to submit their timecards by the deadline will be excluded from the normal payroll transmittal. The Payroll Team will coordinate an off-cycle payroll run the following week for any employee not included in the normal transmittal.

Payroll will not be able to make any adjustments or corrections to time entries once the system is in the lockdown period, in order to ensure completion of payroll processing.

For tracking purposes, new time tracking and project codes have been created and should be used for the duration of the Court's public closure period.

Employees Reporting to Court Locations or Teleworking

Employees who reported to work in person or teleworked should enter "Worked Hours" in "Time Type" only for the days they worked.

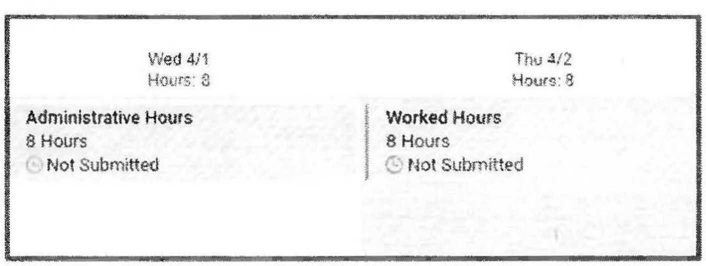
Employees who teleworked must also enter **"COVID-19 – Telework" in the** "Grant/Project" field under "Details".

Employees on Paid Administrative Leave

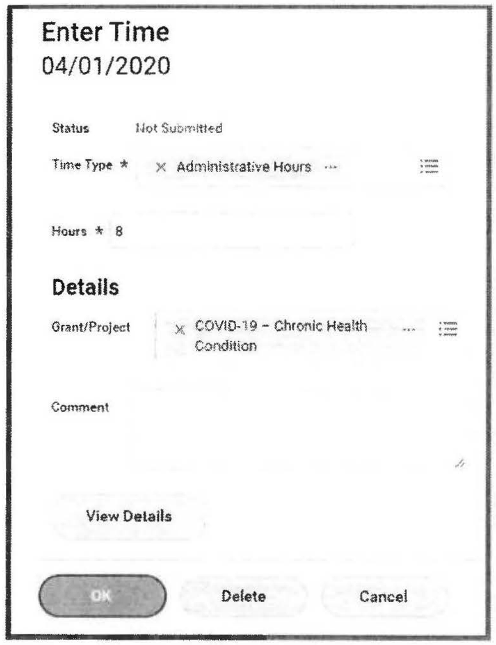
Two new time tracking pay codes, "Administrative Hours" and "Administrative Hours – Grants" were created to account for staff on paid administrative leave for any of the following reasons:

- Employees not instructed to report to work
- Employees not teleworking

Employees may have a combination of "Administrative Hours" and "Worked Hours" in a given day or week. For example, an employee was not instructed to report to work or telework on 4/1, but reported to work or teleworked on 4/2.



- Employees with a chronic health condition – certified by Human Resources
  - ➢ Use Grant/Project Code: **COVID–19 – Chronic Health Condition**



- Employees aged 65 or older
  - ➢ Use Grant/Project Code: **COVID–19 – 65+**

- Employees directed to self-quarantine/isolation – certified by Human Resources
  - Use Grant/Project Code: **COVID–19 – Quarantine**

Note: Employees should not use the "Administrative Hours- Grants" time code unless instructed to use the code by Payroll Staff, Grant Administration Staff, or your Director.

Employees Unable to Report to Work

As detailed in the FAQ circulated by Chad Finke, Court Executive Officer, on March 27, 2020, employees who are unable to report to work for some reason (e.g., because they are sick, because they are caring for a relative) will not receive paid administrative leave. Rather, employees who report that they are sick, who communicate that they will be unable to report to work because of, e.g., a school closure or the need to provide care to a non-sick family member, or who are otherwise unable to report to work during court business hours, need to submit a leave request using the appropriate leave balance type (e.g. sick, vacation, floating holiday).

Thank you all for your continued understanding, patience, and assistance as we navigate through this difficult and unprecedented situation.

Please direct all inquiries and questions to PayrollUnit@alameda.courts.ca.gov in order to receive the quickest response.

Gov. Code Sec. 31461. (a) "Compensation earnable" by a member means the average compensation as determined by the board, for the period under consideration upon the basis of the average number of days ordinarily worked by persons in the same grade or class of positions during the period, and at the same rate of pay. The computation for any absence shall be based on the compensation of the position held by the member at the beginning of the absence. Compensation, as defined in Section 31460, that has been deferred shall be deemed "compensation earnable" when earned, rather than when paid.

(b) "Compensation earnable" does not include, in any case, the following:

(1) Any compensation determined by the board to have been paid to enhance a member's retirement benefit under that system. That compensation may include:

(A) Compensation that had previously been provided in kind to the member by the employer or paid directly by the employer to a third party other than the retirement system for the benefit of the member, and which was converted to and received by the member in the form of a cash payment in the final average salary period.

(B) Any one-time or ad hoc payment made to a member, but not to all similarly situated members in the member's grade or class.

(C) Any payment that is made solely due to the termination of the member's employment, but is received by the member while employed, except those payments that do not exceed what is earned in each 12-month period during the final average salary period regardless of when reported or paid.

(2) Payments for unused vacation, annual leave, personal leave, sick leave, or compensatory time off, however denominated, whether paid in a lump sum or otherwise, in an amount that exceeds that which may be earned in each 12-month period during the final average salary period, regardless of when reported or paid.

(3) Payments for additional services rendered outside of normal working hours, whether paid in a lump sum or otherwise.

(4) Payments made at the termination of employment, except those payments that do not exceed what is earned in each 12-month period during the final average salary period, regardless of when reported or paid.

Gov. Code Sec. 7522.34. (a) "Pensionable compensation" of a new member of any public retirement system means the normal monthly rate of pay or base pay of the member paid in cash to similarly situated members of the same group or class of employment for services rendered on a full-time basis during normal working hours, pursuant to publicly available pay schedules.

(b) Compensation that has been deferred shall be deemed pensionable compensation when earned rather than when paid.

(c) "Pensionable compensation" does not include the following:

(1) Any compensation determined by the board to have been paid to increase a member's retirement benefit under that system.

(2) Compensation that had previously been provided in kind to the member by the employer or paid directly by the employer to a third party other than the retirement system for the benefit of the member and which was converted to and received by the member in the form of a cash payment.

(3) Any one-time or ad hoc payments made to a member.

(4) Severance or any other payment that is granted or awarded to a member in connection with or in anticipation of a separation from employment, but is received by the member while employed.

(5) Payments for unused vacation, annual leave, personal leave, sick leave, or compensatory time off, however denominated, whether paid in a lump sum or otherwise, regardless of when reported or paid.

(6) Payments for additional services rendered outside of normal working hours, whether paid in a lump sum or otherwise.

(7) Any employer-provided allowance, reimbursement, or payment, including, but not limited to, one made for housing, vehicle, or uniforms.

(8) Compensation for overtime work, other than as defined in Section 207(k) of Title 29 of the United States Code.

(9) Employer contributions to deferred compensation or defined contribution plans.

(10) Any bonus paid in addition to the compensation described in subdivision (a).

(11) Any other form of compensation a public retirement board determines is inconsistent with the requirements of subdivision (a).

(12) Any other form of compensation a public retirement board determines should not be pensionable compensation.

NEW BUSINESS

7.A. Discussion and possible motion to adopt an up to $35 million Investment in AEW Partners Real Estate Fund IX, as of ACERA's Real Estate Portfolio – Opportunistic (CONFIDENTIAL).

7.B. Discussion and possible motion to temporarily increase investment staff delegated authority from $25 million to $75 million with designated oversight.

7.C. Investment Market Update (*Information Item*).

7.D. Presentation and discussion of the Actuarial Valuation and Review as of December 31, 2019 (Segal) (*Information Item*).

7.E. Presentation and discussion of the GASB Statement No. 67 Valuation and addendums as of December 31, 2019 (Segal) (*Information Item*).

7.F. Presentation and discussion of the GASB Statement No. 74 Valuation and addendums as of December 31, 2019 (Segal) (*Information Item*).

7.G. Solicit input on the frequency and content of operational updates to the Board during this period of disruption.

7.H. Chief Executive Officer's Report.

NEW BUSINESS

7.A. **Discussion and possible motion to adopt an up to $35 million Investment in AEW Partners Real Estate Fund IX, as of ACERA's Real Estate Portfolio – Opportunistic (CONFIDENTIAL).**

NEW BUSINESS

7.B. Discussion and possible motion to temporarily increase investment staff delegated authority from $25 million to $75 million with designated oversight.

DATE: April 16, 2020

TO: Members of the Board of Retirement

FROM: Dave Nelsen, Chief Executive Officer DN

SUBJECT: Delegated Authority of Investment Staff

The current COVID-19 pandemic has created significant disruption in our society. This disruption has impacted each of us from how we conduct our personal daily routines, to how we conduct our business. It has created investment market disruption as well. We have seen the value of our portfolio decrease significantly in reaction to these events, while experiencing extreme volatility.

When faced with a highly volatile market, devalued equities, and businesses that could be struggling to continue, there may be deals available to ACERA that offer significant value. However, some of these deals may not be available for long, and authority to act quickly could be essential. The Investment team, in consultation with Verus, are in support of providing additional temporary authority to staff to approve certain investment proposals.

The Proposal:

Grant the Investment Staff the temporary authority to approve the consultant's new and re-up investment proposals up to $75 million, upon completion of a thorough review and due diligence process with satisfactory results, in the following investment types:

a) Private Equities;
b) Absolute Returns;
c) Real Assets;
d) Real Estate; and,
e) Private Credit.

Under this temporary expanded authority, a deal would require the approval of the Chair and Vice-Chair of the Investment Committee (unless the deal is already within previously existing delegated authority that does not require such approval). In the event the Chair and the Vice-Chair disagree on the investment proposal, the Chair of the Board would cast the deciding vote to approve or not. This temporary authority would be through September 30, 2020, or until removed by action of the Board, whichever comes first.

Background:

Currently, Investment Staff can approve up to $25 million for new Private Equity or Absolute Return proposals, and up to $65 million for new Private Credit proposals. There is currently no delegated authority to Investment Staff for Real Estate or Real Assets proposals.

Discussion:

ACERA uses a very deliberative process for approving most investment proposals. While it is the case for many public plans that the additional administrative approval requirements may make them a less nimble investment partner, it has been a value of the ACERA Board that this deliberative process results in better outcomes over the long term.

This proposal would allow Investment Staff to bypass some of those processes a bit more frequently in order to take advantage of a unique investment environment, while still providing Trustee oversight and involvement. It is noted that the temporary modifications to the Brown Act by Governor Newsom have made conducting public meetings much easier and quicker to bring about. These modifications could allow for more nimble actions by the Board to approve proposals quickly. However, given the uncertainty of health and availability of the parties involved during this crisis, we feel this temporary grant of additional authority could be both prudent and beneficial for the portfolio, and ultimately for the members and employers.

Recommendation:

We recommend that the Board of Retirement grant the temporary increase to Investment Staff delegated authority as outlined in this memo.

<u>NEW BUSINESS</u>

7.C. Investment Market Update (*Information Item*).

<u>NEW BUSINESS</u>

7.D. Presentation and discussion of the Actuarial Valuation and Review as of December 31, 2019 (Segal) (*Information Item*).

ACERA

MEMORANDUM TO THE BOARD OF RETIREMENT

DATE: April 16, 2020

TO: Members of the Board of Retirement

FROM: Margo Allen, Fiscal Services Officer

SUBJECT: Draft Actuarial Valuation and Review as of December 31, 2019

Executive Summary

The draft Actuarial Valuation and Review as of December 31, 2019, (i.e., funding valuation report) is attached for review and discussion. A summary of the Unfunded Actuarial Accrued Liability (UAAL) and the aggregate employer and employee contribution rates from the 2019 funding valuation report are provided here for quick reference.

The UAAL increased from $2,137.1 million in 2018 to $2,195 million in 2019. This increase in the UAAL was primarily due to the following factors:

a) Lower than expected return on investments (after smoothing);
b) Higher than expected salary increases for active members;
c) Loss due to actual contributions lower than expected[1];
d) Other actuarial losses, **offset somewhat by**; and
e) The expected decrease due to contributions made to pay down the UAAL.

The aggregate employer contribution rate[2] has increased from 27.96% to 28.56%. This change was primarily due:

a) Lower than expected return on investments (after smoothing);
b) Amortizing the prior year's UAAL over a smaller than expected total projected payroll;
c) Higher than expected individual salary increases for active members;
d) Loss due to actual contributions lower than expected[1]; and,
e) Other actuarial losses[3].

The aggregate employee member contribution rate increased from 9.33% of payroll to 9.34% of payroll due to changes in membership demographics.

Prior Board of Retirement Approved Policy and Methodology Implementation

As discussed last year, there were two distinct changes effective with ACERA's December 31, 2018, actuarial valuation. The first change implemented the Board approved Declining Employer Payroll Policy, and the second change implemented the Board approved reporting methodology

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[1] Including scheduled delay in implementing contribution rates after date of valuation

[2] For employers with active member payroll.

[3] Including changes in membership demographics.

to satisfy disclosure requirements for the new Actuarial Standard of Practice No 51, Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions (ASOP No. 51), effective for a measurement date on or after November 1, 2018.

Declining Employer Payroll Policy Implementation: In October of 2018, the Board adopted the Declining Employer Payroll Policy and determined that the policy applied to the Alameda County Office of Education (ACOE) and the Livermore Area Recreation and Parks District (LARPD) Tier 1 members who were included as part of the General cost group in prior valuations. As a result, an unfunded actuarial accrued liability (UAAL) has been allocated to each of these two employers as of December 31, 2017, as per the Board of Retirement's direction, February 21, 2019.

Reporting Methodology for ASOP No. 51 Implementation: In February 2019, the Board adopted staff's recommendation to require Segal to identify risks that "may reasonably be anticipated to significantly affect the plan's future financial condition" (ASOP 51). Based on the Actuarial Valuation and Review as of December 31, 2019, Segal will provide the results of its risk report to the Actuarial Committee on a future date to be determined.

Return Assumption Impact

Similar to what Segal disclosed in the December 21, 2018, valuation report, the 7.25% investment return assumption that the Board approved on December 21, 2017, for determining the liabilities for funding purposes and used for establishing the employer and member contribution rates in this report has continued to be developed without considering the impact of any future 50/50 excess earnings allocation. This is based on Segal's understanding that Article 5.5 of the Statute, which authorizes the allocation of 50% of excess earnings to the SRBR, does not allow for the use of a different investment return for funding than is used for interest crediting. This would appear in effect to preclude the prefunding of the SRBR through the use of an assumption lower than the market earnings assumption of 7.25%.

For informational purposes only: As required by the Actuarial Standard of Practice (ASOP) No. 4 ("Measuring Pension Obligations and Determining Pension Plan Costs or Contributions"), Segal performed a stochastic model, as detailed in the 2013-2016 experience study report, to estimate the impact of the 50% allocation of future excess earnings to the SRBR. The results of this model indicated that the 50/50 allocation of future excess earnings would have about the same impact as an "outflow" (i.e., assets not available to fund the benefits included in this valuation) that would average approximately 0.60% of assets over time. *When the results of the stochastic model are applied to the to this valuation, it is estimated that the annual outflow would increase the Accrued Actuarial Liability (AAL) measured using a 7.25% investment return assumption from $9.80 billion to $10.51 billion (for a difference of $0.71 billion) and would increase the employer's UAAL contribution rate by about 4% - 5% of payroll.*

Conclusion

Consequent to review, staff notes no discrepancies in the report and recommends committee review and future board adoption.

Attachment:

ACERA's draft Actuarial Valuation and Review as of December 31, 2019

Alameda County Employees' Retirement Association

Actuarial Valuation and Review

As of December 31, 2019

Segal

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San Francisco, CA 94105-6147
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April 7, 2020

Board of Retirement
Alameda County Employees' Retirement Association
475 14th Street, Suite 1000
Oakland, CA 94612

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of December 31, 2019. It summarizes the actuarial data used in the valuation, analyzes the preceding year's experience, and establishes the funding requirements for fiscal year 2020-2021.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Retirement Association. The census information and financial information on which our calculations were based was prepared by the staff of the Association. That assistance is gratefully acknowledged.

The actuarial calculations were directed under the supervision of Eva Yum, FSA, MAAA, Enrolled Actuary. 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. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Association.

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,
Segal

Andy Yeung, ASA, EA, MAAA, FCA Vice President and Actuary	Eva Yum, FSA, EA, MAAA Senior Actuary

EK/

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Section 1: Actuarial Valuation Summary

Purpose and Basis

This report was prepared by Segal to present a valuation of the Alameda County Employees' Retirement Association ("the Plan") as of December 31, 2019. The valuation was performed to determine whether the assets and contribution rates are sufficient to provide the prescribed benefits. The measurements shown in this actuarial valuation may not be applicable for other purposes. In particular, the measures herein are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law.

The contribution requirements presented in this report are based on:

- The benefit provisions of the pension plan, as administered by the Board of Retirement;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of November 30, 2019, provided by the Retirement Association;
- The assets of the Plan as of December 31, 2019, provided by the Retirement Association;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the December 31, 2019 valuation;
- Other actuarial assumptions regarding employee terminations, retirement, death, etc. adopted by the Board for the December 31, 2019 valuation and
- The funding policy adopted by the Board of Retirement.

One of the general goals of an actuarial valuation is to establish contributions which fully fund the Association's liabilities, and which, as a percentage of payroll, remain as level as possible for each generation of active members. Annual actuarial valuations measure the progress toward this goal, as well as test the adequacy of the contribution rates.

Section 1: Actuarial Valuation Summary

In preparing this valuation, we have employed generally accepted actuarial methods and assumptions to evaluate the Association's liabilities and future contribution requirements. Our calculations are based upon member data and financial information provided to us by the Association's staff. This information has not been audited by us, but it has been reviewed and found to be consistent, both internally and with prior year's information.

The contribution requirements are determined as a percentage of payroll.[1] The Association's employer rates provide for both Normal Cost and a contribution to amortize any unfunded or overfunded actuarial accrued liabilities. In this valuation, we have applied the funding policy adopted by the Board on September 18, 2014 (and reconfirmed by the Board on October 18, 2018). Details of the funding policy are provided in *Section 4, Exhibit I* on page 101.

A schedule of current amortization balances and payments may be found in *Section 3, Exhibit H* on page 82. A graphical projection of the Unfunded Actuarial Accrued Liability (UAAL) amortization balances and payments has been included in *Section 3, Exhibit I* on page 88.

The rates calculated in this report may be adopted by the Board for the fiscal year that extends from July 1, 2020 through June 30, 2021.

[1] The contribution requirement for an employer with active member payroll is expressed as a level percentage of payroll for that employer. The contribution requirement for the Alameda County Office of Education with no active member payroll is expressed as a level dollar amount.

Valuation Highlights

Pg. 50 1. In the December 31, 2018 valuation, the ratio of the Valuation Value of Assets (VVA) to Actuarial Accrued Liabilities (AAL) was 77.2%. In this December 31, 2019 valuation, the funded ratio has increased slightly to 77.6%. The funded ratio if measured on a Market Value of Assets (MVA) basis increased from 71.8% as of December 31, 2018 to 79.4% as of December 31, 2019. The change in the VVA funded ratio was primarily the result of an expected increase due to contributions made to pay down the unfunded liability, offset somewhat by a slight loss on the Valuation Value of Assets from the recognition of past investment losses after smoothing. The change to the MVA funded ratio was primarily the result of the gain on the Market Value of Assets during 2019. These measurements are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligation or the need for or the amount of future contributions.

Pgs. 24 and 30 2. The Association's UAAL as of December 31, 2018 was $2,137.1 million. In this year's valuation, the UAAL has increased to $2,195.0 million. The increase in the UAAL was primarily due to (a) lower than expected return on investments (after smoothing), (b) higher than expected salary increases for active members, (c) the loss due to actual contributions lower than expected[1], and (d) other actuarial losses, offset somewhat by (e) the expected decrease due to contributions made to pay down the UAAL. A reconciliation of the Association's UAAL is provided in *Section 2, Subsection E*. A schedule of the current UAAL amortization amounts may be found in *Section 3, Exhibit H*. Note that a graphical projection of the UAAL amortization bases and payments has been included in *Section 3, Exhibit I.*

Pgs. 36 and 132 3. The aggregate employer rate[2] calculated in this valuation has increased from 27.85% of payroll to 28.56% of payroll. This change was primarily due to (a) lower than expected return on investments (after smoothing), (b) the effect of amortizing the prior year's UAAL over a smaller than expected total projected payroll, (c) higher than expected individual salary increases for active members, (d) actual contributions lower than expected[1] and (e) other actuarial losses[3]. A reconciliation of the Association's aggregate employer rate is provided in *Section 2, Subsection F*.

A schedule of the projected contributions by each participating employer is provided in *Section 4, Exhibit IV*. Under the Board of Retirement's current actuarial funding policy, the UAAL is paid off by the employers in the General Tiers 1, 2, and 4 membership group in proportion to their payroll (with the exception of the Alameda County Office of Education and the Livermore Area Recreation and Parks District, as discussed in item 7 below).

Employer rates for AHS/Court/First 5 are higher than the County's rates to reflect that only the County has received a reimbursement for the implicit retiree health benefit subsidy paid by the County for 2019 and in the prior years. The $6.5 million (an estimated amount provided by ACERA for the implicit retiree health benefit subsidy paid by the County for 2019) and the

[1] Including scheduled delay in implementing contribution rates after the date of the valuation.
[2] For employers with active member payroll.
[3] Including changes in membership demographics.

unused credit from prior years' transfers (the balance of prior transfers was about $71.7 million[1] as of December 31, 2019) have been recognized over separate 20-year periods.

Pgs. 40 and 112

4. The aggregate member rate calculated in this valuation increased from 9.33% of payroll as of December 31, 2018 to 9.34% of payroll as of December 31, 2019 due to changes in membership demographics. A reconciliation of the Association's aggregate member rate is provided in *Section 2, Subsection F*.

   The individual member rates have been updated to reflect the valuation as of December 31, 2019. The detailed member rates are provided in *Section 4, Exhibit III* of this report.

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5. As indicated in *Section 2, Subsection B* of this report, the total unrecognized net investment gain as of December 31, 2019 is $260.7 million (in the previous valuation, this amount was a $569.1 million net loss). This net investment gain will be recognized in the determination of the Actuarial Value of Assets for funding purposes in the next few years, and will offset any investment losses that may occur after December 31, 2019. This implies that if the Association earns the assumed net rate of investment return of 7.25% per year on a **market value basis**, it will result in investment gains on the Actuarial Value of Assets in the next few years. So, if the actual market return is equal to the assumed 7.25% rate and all other actuarial assumptions are met, the contribution requirements would generally decrease in the next few years.

   The net deferred gain of $260.7 million represents 3.0% of the Market Value of Assets as of December 31, 2019. Unless offset by future investment losses or other unfavorable experience, the recognition of the $260.7 million deferred market gain is expected to have an impact on the Association's future funded percentage and contribution rate requirements. Under a simplified approach, which takes into account the size of the valuation and the SRBR reserves, this potential impact may be illustrated as follows:

   a. If a proportion of the net deferred gain that is commensurate with the size of the valuation reserves were recognized immediately in the valuation value of assets, the funded percentage would increase from 77.6% to 79.4%.
   b. If a proportion of the net deferred loss that is commensurate with the size of the valuation reserves were recognized immediately in the valuation value of assets, the aggregate employer rate[2] would decrease from 28.56% to about 27.5% of payroll.

6. Similar to what we disclosed in our December 21, 2018 valuation report, the 7.25% investment return assumption that the Board approved on December 21, 2017 for determining the liabilities for funding purposes and used for establishing the employer and member contribution rates in this report has continued to be developed without considering the impact of any future 50/50 excess earnings allocation. This is based on our understanding that Article 5.5 of the Statute, which authorizes the allocation of 50% of excess earnings to the SRBR, does not allow for the use of a different investment return for funding than is used for

[1] See *Section 4, Exhibit V* for a schedule of the outstanding balances of the unused credit.
[2] For employers with active member payroll.

interest crediting. This would appear in effect to preclude the prefunding of the SRBR through the use of an assumption lower than the market earnings assumption of 7.25%.

As required by the Actuarial Standard of Practice (ASOP) No. 4 ("Measuring Pension Obligations and Determining Pension Plan Costs or Contributions"), we performed a stochastic model, as detailed in our 2013-2016 experience study report, to estimate the impact of the 50% allocation of future excess earnings to the SRBR. The results of our model indicated that the 50/50 allocation of future excess earnings would have about the same impact as an "outflow" (i.e., assets not available to fund the benefits included in this valuation) that would average approximately 0.60% of assets over time. **For informational purposes only**, when we applied the results of our stochastic model to this valuation, we have estimated that such an annual outflow would increase the AAL measured in this valuation using a 7.25% investment return assumption from $9.80 billion to $10.51 billion (for a difference of $0.71 billion) and would increase the employer's UAAL contribution rate by about 4% - 5% of payroll.

7. The Board adopted the Declining Employer Payroll Policy on October 18, 2018 and determined that the policy applies to the Alameda County Office of Education (ACOE) and the Livermore Area Recreation and Parks District (LARPD) Tier 1 members who were included as part of the General cost group in prior valuations. As a result, an unfunded actuarial accrued liability (UAAL) was allocated to each of these two employers as of December 31, 2017.

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8. The Actuarial Standards Board approved Actuarial Standard of Practice No. 51 (ASOP 51) regarding risk assessment, which was first effective with ACERA's December 31, 2018 actuarial valuation. ASOP 51 requires actuaries to identify risks that "may reasonably be anticipated to significantly affect the plan's future financial condition". Investment risk, asset/liability mismatch risk, interest rate risk, longevity and other demographic risks and contribution risk are also cited as examples in ASOP 51. The standard does not require the actuary to evaluate the likelihood of contributing entities to make contributions when due, nor does it require the actuary to assess the likelihood or consequences of future changes in applicable law.

   The actuary's assessment can be qualitative or quantitative (e.g., based on numerical demonstrations). The actuary may use non-numerical methods for assessing risks that might take the form of commentary about potential adverse experience and the likely effect on future results. While the standard does not require that every valuation include a quantitative risk assessment, the actuary may recommend that a more detailed risk assessment be performed. When making that decision, the actuary will take into account such factors as the Plan's design, maturity, size, funded status, asset allocation, cash flow, possible insolvency and current market conditions.

   A copy of the risk assessment report including the analysis recommended by Segal in consultation with ACERA staff will be available later in 2020.

9. Segal strongly recommends an actuarial funding method that targets 100% funding of the actuarial accrued liability. Generally, this implies payments that are ultimately at least enough to cover normal cost, interest on the unfunded actuarial accrued liability and the principal balance. The funding policy adopted by the Board meets this standard.

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10. The actuarial loss from investment and other experience is $99.6 million, or 1.0% of actuarial accrued liability.

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11. The net experience loss from sources other than investments and contributions was 0.3% of the actuarial accrued liability. About half of the loss was due to higher than expected individual salary increases for actives.

Pgs. 25 and 36

12. The rate of return on the market value of assets was 17.86% for the 2019 plan year. The return on the valuation value of assets was 6.33% for the same period due to the recognition of prior years' investment gains and losses. This resulted in an actuarial loss when measured against the assumed rate of return of 7.25% This actuarial investment loss increased the average employer contribution rate by 0.41% of payroll. Given the low fixed income interest rate environment, target asset allocation and expectations of future investment returns for various classes, we advise the Board to continue to monitor actual and anticipated investment returns relative to the assumed long-term rate of return on investments of 7.25%.

13. This report constitutes an actuarial valuation for the purpose of determining the actuarially determined contribution under the Plan's funding policy and measuring the progress of that funding policy. The Net Pension Liability (NPL) and Pension Expense under Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68, for inclusion in the plan and employer's financial statements as of December 31, 2019 will be provided separately. In addition to being based on a different measurement date, the accounting disclosures will utilize different methodologies from those employed in the funding valuation, as required by the GASB. However, the actuarially determined contribution in this valuation is expected to be used as the actuarially determined contribution (ADC) for GASB financial reporting.

14. This actuarial report as of December 31, 2019 is based on financial data as of that date and demographic data as of November 30, 2019. Changes subsequent to that date are not reflected and will affect future actuarial costs of the plan.

Summary of Key Valuation Results

		December 31, 2019		December 31, 2018	
		Total Rate	Estimated Annual Dollar Amount[1] ($ in '000s)	Total Rate	Estimated Annual Dollar Amount[1] ($ in '000s)
Employer Contribution Rates:[2]	**County Only**				
	• General Tier 1	22.90%	$1,738	22.31%	$1,693
	• General Tier 2	21.92	85,631	21.40	83,600
	• General Tier 4	21.43	46,119	20.83	44,828
	• Safety Tier 1	83.07	632	80.60	613
	• Safety Tier 2	63.66	73,163	62.34	71,648
	• Safety Tier 2C	64.94	2,023	63.63	1,981
	• Safety Tier 2D	63.31	9,918	61.60	9,651
	• Safety Tier 4	60.49	25,729	59.20	25,180
	County Combined	30.98	244,953	30.26	239,194
	AHS, Court & First 5 Only				
	• General Tier 1	23.77	373	23.13	362
	• General Tier 2	22.79	44,301	22.22	43,192
	• General Tier 4	22.30	29,861	21.65	28,991
	Housing Only				
	• General Tier 1	28.97	834	28.34	816
	• General Tier 2	27.99	63	27.43	61
	• General Tier 4	27.50	394	26.86	384
	LARPD Only[3]				
	• General Tier 1	38.07	237	33.62	209
	• General Tier 3	43.82	794	38.41	696
	• General Tier 4	36.60	694	32.14	610
	All Categories Combined	**28.56**	**322,504**	**27.85**	**314,515**

1 Based on December 31, 2019 projected annual compensation.
2 For employers with active member payroll. The UAAL contribution for ACOE, expressed as a level dollar amount, is $89 K when made on April 1, 2021.
3 For LARPD, the combined rate is 39.83% as of December 31, 2019 and 34.98% as of December 31, 2018.

Section 1: Actuarial Valuation Summary

		December 31, 2019		December 31, 2018	
		Total Rate	Estimated Annual Dollar Amount[1] ($ in '000s)	Total Rate[2]	Estimated Annual Dollar Amount[1] ($ in '000s)
Average Member Contribution Rates:	• General Tier 1	9.43%	$1,193	9.47%	$1,198
	• General Tier 2	7.70	45,065	7.70	45,065
	• General Tier 3	14.41	261	14.13	256
	• General Tier 4	8.85	31,191	8.80	31,015
	• Safety Tier 1	9.96	76	10.12	77
	• Safety Tier 2	15.81	18,170	15.82	18,182
	• Safety Tier 2C	13.48	420	13.52	421
	• Safety Tier 2D	16.09	2,521	16.07	2,518
	• Safety Tier 4	15.42	6,559	15.58	6,627
	All Categories Combined	**9.34**	**105,456**	**9.33**	**105,359**

1 Based on December 31, 2019 projected annual compensation.
2 Average rates have been recalculated by applying the individual entry age based member rates determined in the December 31, 2018 valuation to the Association membership as of December 31, 2019.

Summary of Key Valuation Results (continued)

		December 31, 2019 ($ in '000s)	December 31, 2018 ($ in '000s)
Actuarial Accrued Liability as of December 31:	• Retired members and beneficiaries	$6,006,226	$5,696,148
	• Inactive vested members	260,753	243,463
	• Active members	3,528,040	3,436,786
	• Total Actuarial Accrued Liability[1]	$9,795,019	$9,376,397
	• Normal Cost for plan year beginning December 31	$224,598	$218,336
Assets as of December 31:	• Valuation Value of Assets (VVA)[2]	$7,599,977	$7,239,327
	• Market Value of Assets (MVA)[3]	7,774,898	6,734,526
	• Valuation Value of Assets as a percentage of Market Value of Assets	97.8%	107.4%
Funded status as of December 31:	• Unfunded Actuarial Accrued Liability on Valuation Value of Assets basis	$2,195,042	$2,137,070
	• Funded percentage on VVA basis	77.6%	77.2%
	• Unfunded Actuarial Accrued Liability on Market Value of Assets basis	$2,020,121	$2,641,871
	• Funded percentage on MVA basis	79.4%	71.8%
	• Amortization period[4]	Varies	Varies
Key assumptions:	• Net investment return	7.25%	7.25%
	• Price Inflation	3.00%	3.00%
	• Payroll growth increase	3.50%	3.50%

1 Excludes liabilities held for SRBR and other non-valuation reserves.
2 Excludes Reserve for Interest Fluctuations (Contingency Reserve) if positive, Supplemental Retirees Benefit Reserve, and 401(h) Reserve.
3 The Market Value of Assets as of December 31, 2019 equals the Valuation Value of Assets plus one-half of the deferred market gains after adjustment to include the balance in the Contingency Reserve. The Market Value of Assets as of December 31, 2018 equals the Valuation Value of Assets plus a proportion of the deferred market losses after netting out the balance in the Contingency Reserve that is commensurate with the size of the valuation reserves.
4 New UAAL established on each valuation after December 31, 2011 are amortized as follows: plan amendments are amortized over separate decreasing 15-year periods; early retirement incentive programs (ERIPs) are amortized over separate decreasing 5-year periods; assumption and method changes are amortized over separate decreasing 20-year periods; and experience gains/losses are also amortized over separate decreasing 20-year periods.

Summary of Key Valuation Results (continued)

		December 31, 2019	December 31, 2018	Change From Prior Year
Demographic data as of December 31:	**Active Members:**			
	• Number of members	11,336	11,349	-0.1%
	• Average age	47.1	47.0	0.1
	• Average service	11.3	11.4	-0.1
	• Total projected compensation	$1,129,175,000	$1,093,735,000	3.2%
	• Average projected compensation	$99,610	$96,373	3.4%
	Retired Members and Beneficiaries:			
	• Number of members:			
	– Service retired	7,888	7,628	3.4%
	– Disability retired	951	924	2.9%
	– Beneficiaries	1,239	1,231	0.6%
	– Total	10,078	9,783	3.0%
	• Average age	71.9	71.7	0.2
	• Average monthly benefit[1]	$4,111	$3,983	3.2%
	Inactive Vested Members:			
	• Number of members[2]	2,821	2,568	9.9%
	• Average Age	47.3	47.9	-0.6
	Total Members:	24,235	23,700	2.3%

[1] Excludes monthly benefits payable from the SRBR.
[2] Includes inactive members due a refund of member contributions.

Important Information About Actuarial Valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal relies on a number of input items. These include:

Plan of benefits	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
Participant data	An actuarial valuation for a plan is based on data provided to the actuary by the Association. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Assets	The valuation is based on the market value of assets as of the valuation date, as provided by the Association. The Association uses a "valuation value of assets" that differs from market value to gradually reflect six-month changes in the market value of assets in determining the contribution requirements.
Actuarial assumptions	In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan's assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results that does not mean that the previous assumptions were unreasonable.

Section 1: Actuarial Valuation Summary

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

The actuarial valuation is prepared at the request of the Association. Segal is not responsible for the use or misuse of its report, particularly by any other party.

An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan. Future contribution requirements may differ from those determined in the valuation because of:

- Differences between actual experience and anticipated experience;
- Changes in actuarial assumptions or methods;
- Changes in statutory provisions; and
- Differences between the contribution rates determined by the valuation and those adopted by the Board.

Some actuarial results in this report are not rounded, but that does not imply precision.

If the Association is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.

Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Association should look to their other advisors for expertise in these areas.

As Segal has no discretionary authority with respect to the management or assets of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Plan.

Section 2: Actuarial Valuation Results

A. Member Data

The Actuarial Valuation and Review considers the number and demographic characteristics of covered members, including active members, inactive vested members, retired members and beneficiaries.

This section presents a summary of significant statistical data on these member groups.

More detailed information for this valuation year and the preceding valuation can be found in *Section 3, Exhibits A, B,* and *C*.

Member Population: 2010 – 2019

Year Ended December 31	Active Members	Inactive Vested Members[1]	Retired Members and Beneficiaries	Total Non-Actives	Ratio of Non-Actives to Actives	Ratio of Retired Members and Beneficiaries to Actives
2010	10,879	1,785	7,558	9,343	0.86	0.69
2011	10,724	1,796	7,906	9,702	0.90	0.74
2012	10,800	1,835	8,175	10,010	0.93	0.76
2013	10,877	1,902	8,566	10,468	0.96	0.79
2014	11,025	1,995	8,813	10,808	0.98	0.80
2015	11,071	2,027	8,990	11,017	1.00	0.81
2016	11,111	2,263	9,242	11,505	1.04	0.83
2017	11,323	2,447	9,479	11,926	1.05	0.84
2018	11,349	2,568	9,783	12,351	1.09	0.86
2019	11,336	2,821	10,078	12,899	1.14	0.89

[1] Includes inactive members due a refund of member contributions.

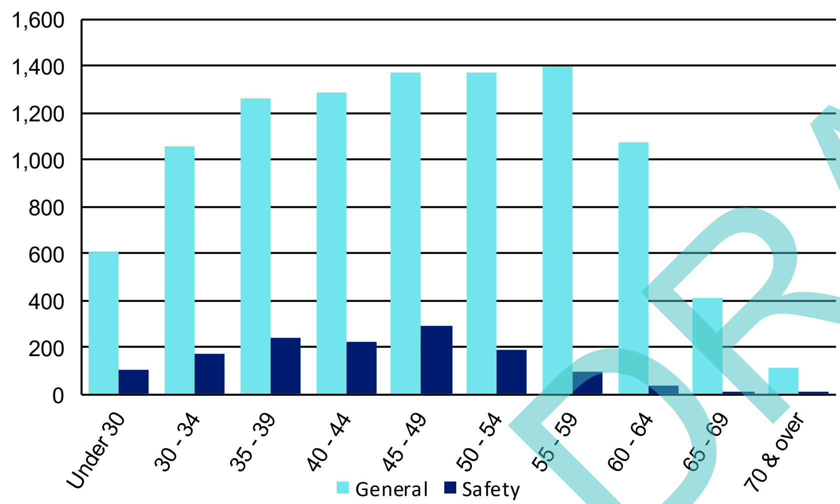
Active Members

Plan costs are affected by the age, years of service and compensation of active members. In this year's valuation, there were 11,336 active members with an average age of 47.1, average years of service of 11.3 and average compensation of $99,610. The 11,349 active members in the prior valuation had an average age of 47.0, average service of 11.4 and average compensation of $96,373.

Among the active members, there were none with unknown age information.

Distribution of Active Members as of December 31, 2019

Actives by Age



Average age	47.1
Prior year average age	47.0
Difference	0.1

Actives by Years of Service

Average years of service	11.3
Prior year average years of service	11.4
Difference	-0.1

Inactive Members

In this year's valuation, there were 2,821 members with a vested right to a deferred or immediate vested benefit or entitled to a refund of their member contributions, versus 2,568 members in the prior valuation.

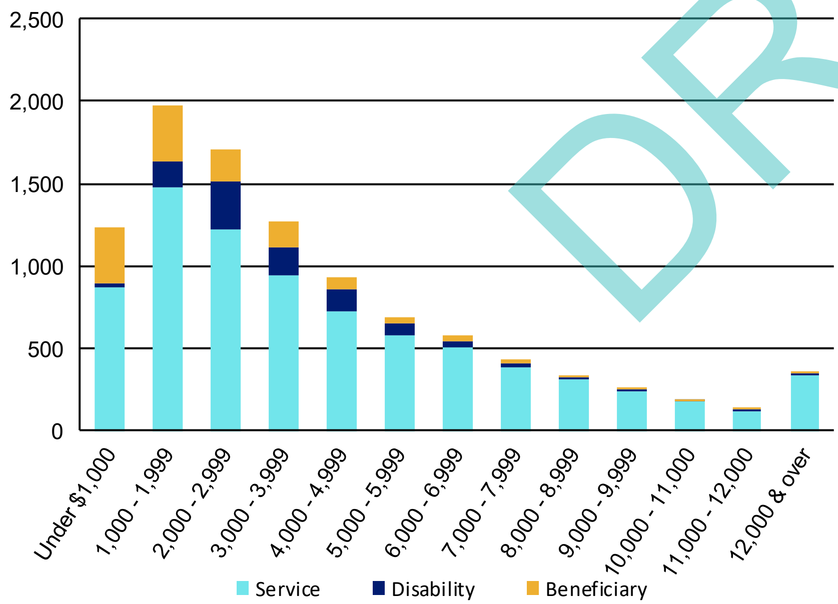
Retired Members and Beneficiaries

As of December 31, 2019, 8,839 retired members and 1,239 beneficiaries were receiving total monthly benefits of $41,427,406. For comparison, in the previous valuation, there were 8,552 retired members and 1,231 beneficiaries receiving monthly benefits of $38,968,811. These monthly benefits exclude supplemental COLA benefits payable from the Supplemental Retirees Benefit Reserve (SRBR).

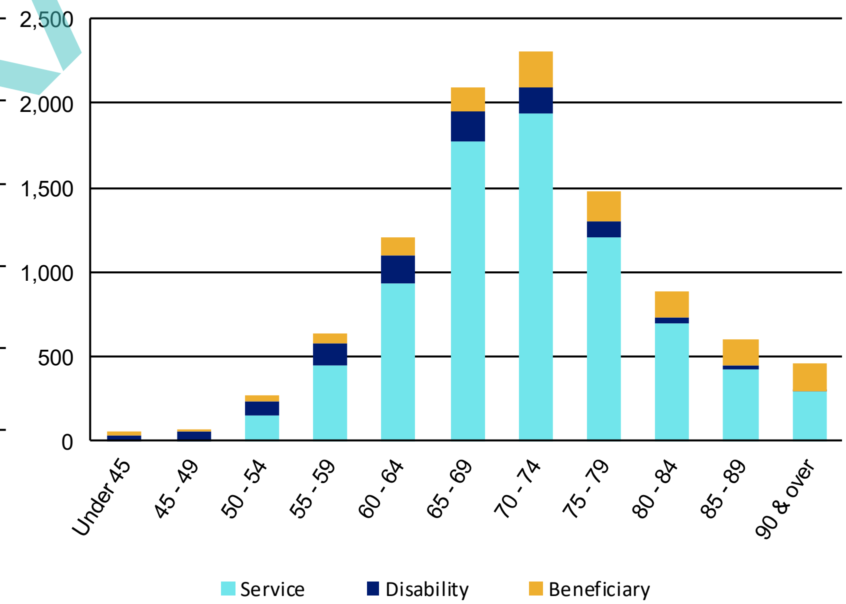
As of December 31, 2019, the average monthly benefit for retired members is $4,344, compared to $4,221 in the previous valuation. The average age for retired members is 71.3 in the current valuation, compared with 71.2 in the prior valuation. For beneficiaries as of December 31, 2019, the average monthly benefit is $2,448, compared to $2,329 in the previous valuation. The average age for beneficiaries is 75.5 in the current valuation, compared with 75.2 in the prior valuation.

Distribution of Retired Members and Beneficiaries as of December 31, 2019

Retired Members and Beneficiaries by Type and Monthly Amount



Retired Members and Beneficiaries by Type and Age



Historical Plan Population

The chart below demonstrates the progression of the active population over the last ten years. The chart also shows the growth among the retired population over the same time period.

Member Data Statistics: 2010 – 2019

	Active Members			Retired Members and Beneficiaries		
Year Ended December 31	**Count**	**Average Age**	**Average Service**	**Count**	**Average Age**	**Average Monthly Amount**
2010	10,879	47.4	11.6	7,558	70.4	$3,067
2011	10,724	47.7	11.8	7,906	70.5	3,190
2012	10,800	47.6	11.8	8,175	70.6	3,332
2013	10,877	47.3	11.5	8,566	70.7	3,442
2014	11,025	47.3	11.5	8,813	70.9	3,549
2015	11,071	47.3	11.6	8,990	71.1	3,648
2016	11,111	47.3	11.6	9,242	71.3	3,757
2017	11,323	47.1	11.4	9,479	71.6	3,880
2018	11,349	47.0	11.4	9,783	71.7	3,983
2019	11,336	47.1	11.3	10,078	71.9	4,111

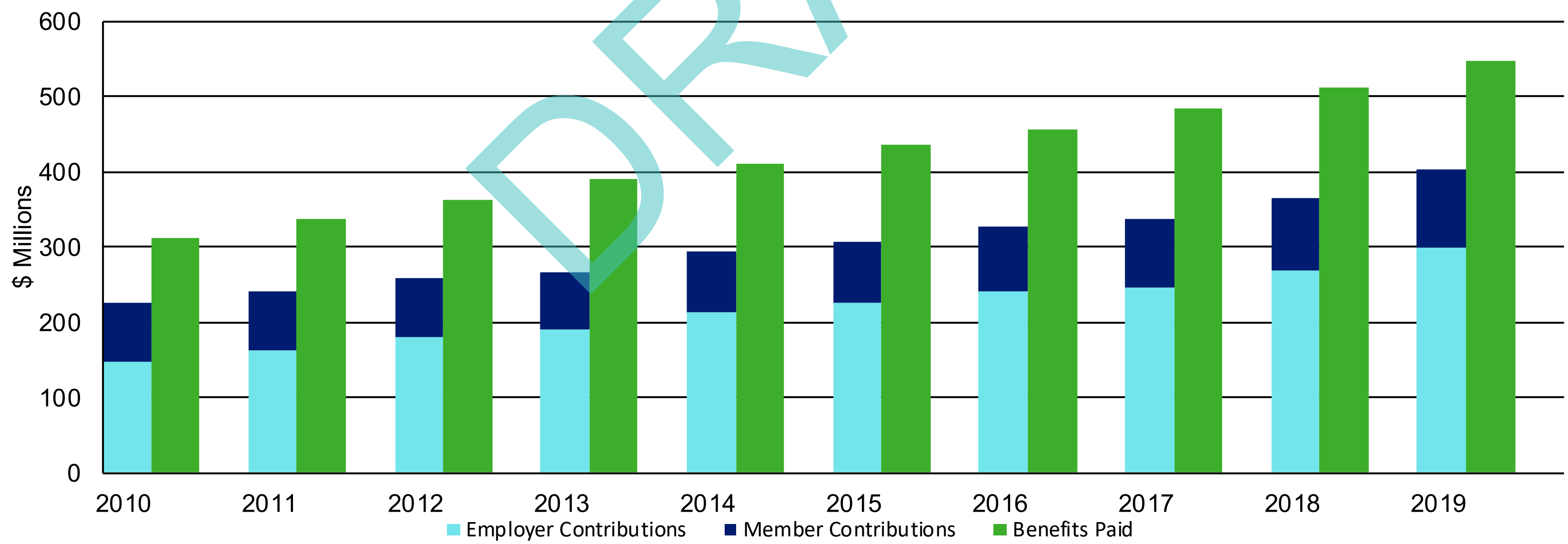
B. Financial information

Retirement plan funding anticipates that, over the long term, both contributions and investment earnings (less investment fees and administrative expenses) will be needed to cover benefit payments. Retirement plan assets change as a result of the net impact of these income and expense components.

Additional financial information, including a summary of transactions for the valuation year, is presented in *Section 3, Exhibits D, E, F,* and *G*.

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable. The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

Comparison of Contributions Made with Benefits Paid
for Years Ended December 31, 2010 – 2019



Determination of Actuarial Value of Assets for Year Ended December 31, 2019

1	**Market value of assets**						**$8,789,279,051**
2	Calculation of unrecognized return						
	Six Month Period		**Actual**	**Expected**	**Investment**	**Percent**	**Deferred**
	From	**To**	**Return[1]**	**Return[1]**	**Gain (Loss)**	**Deferred**	**Return**
a)	1/1/2015	6/30/2015	$210,088,252	$263,436,620	$(53,348,368)	0%	$0
b)	7/1/2015	12/31/2015	(230,048,258)	262,185,431	(492,233,689)	10	(49,223,369)
c)	1/1/2016	6/30/2016	75,639,795	251,178,961	(175,539,165)	20	(35,107,833)
d)	7/1/2016	12/31/2016	379,000,419	251,534,721	127,465,699	30	38,239,710
e)	1/1/2017	6/30/2017	658,890,554	263,335,665	395,554,890	40	158,221,956
f)	7/1/2017	12/31/2017	634,431,651	285,557,601	348,874,050	50	174,437,025
g)	1/1/2018	6/30/2018	86,346,238	306,788,550	(220,442,312)	60	(132,265,387)
h)	7/1/2018	12/31/2018	(457,457,856)	293,029,561	(750,487,417)	70	(525,341,192)
i)	1/1/2019	6/30/2019	854,836,642	274,040,816	580,795,826	80	464,636,660
j)	7/1/2019	12/31/2019	487,958,159	302,301,626	185,656,533	90	167,090,880
k)	Total unrecognized return[2]						$260,688,449
3	Calculation of Preliminary Actuarial Value of Assets						
a)	Preliminary Actuarial Value of Assets: **(1) - (2k)**						$8,528,590,602
b)	Preliminary Actuarial Value as a Percentage of Market Value: **(3a) ÷ (1)**						97.0%
4	Adjustment to be within 40% corridor						0
5	**Final Actuarial value of assets: (3a) + (4)**						**$8,528,590,602**
6	Non-valuation reserves and deductions						
a)	Reserve for Interest Fluctuations (Contingency Reserve), but no less than $0						$0
b)	Supplemental Retirees Benefit Reserve (SRBR)						924,709,823
c)	Other Non-Valuation Reserve (401(h) Reserve)						10,415,538
d)	SRBR Transfer to Employer Advance Reserve						-6,510,876
e)	Subtotal						$928,614,485
7	**Final Valuation Value of Assets: (5) – (6e)**						**$7,599,976,117**

Note: Results may be slightly off due to rounding.

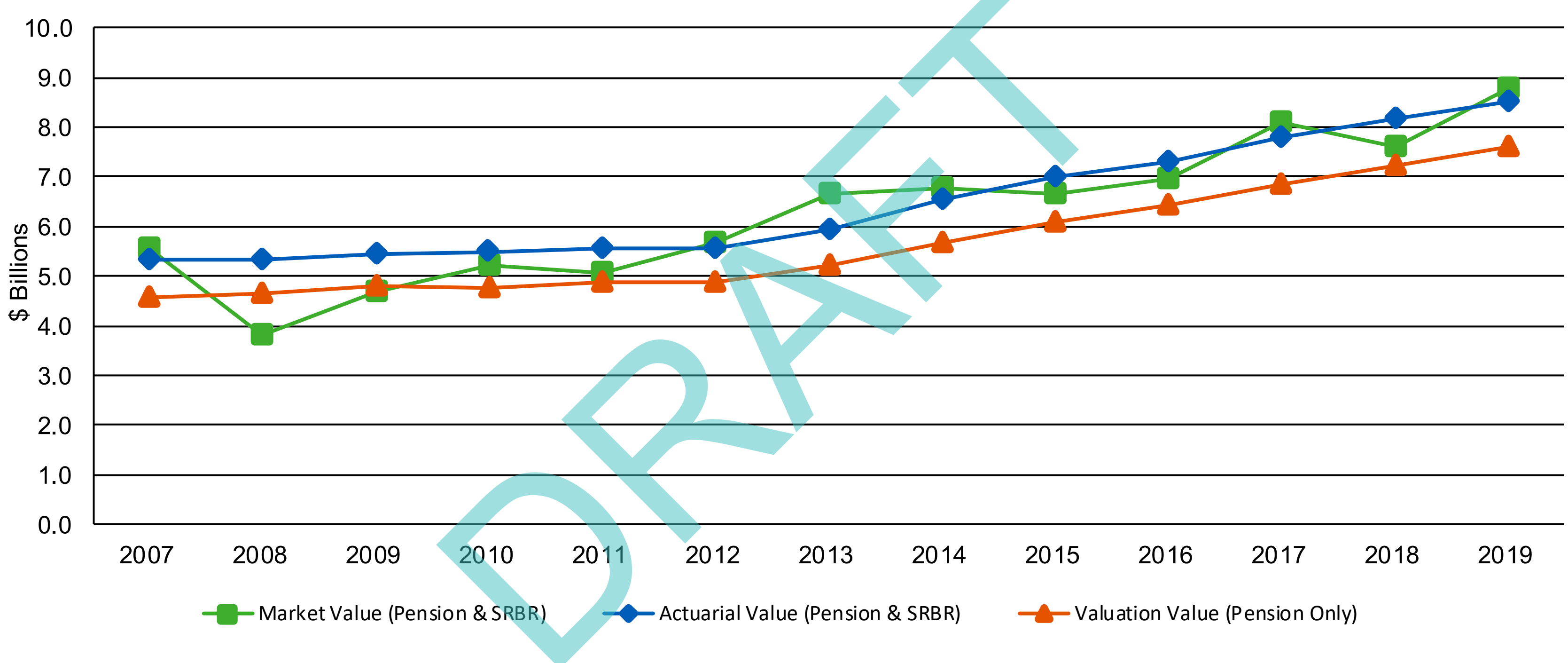
[1] The actual return on a market value basis is calculated by taking the difference between the ending and beginning Market Value of Assets over the last six month period and adjusting that difference for the non-investment cash flows. Those cash flows include contributions received and benefit payments made during that six month period. The amount subject to smoothing is determined as the actual market return earned during the last six month period that was in excess/below the expected return.

[2] Deferred return as of December 31, 2019 recognized in each of the next five years:

(a)	Amount recognized on December 31, 2020	$49,152,251
(b)	Amount recognized on December 31, 2021	120,736,884
(c)	Amount recognized on December 31, 2022	(6,008,069)
(d)	Amount recognized on December 31, 2023	78,241,730
(e)	Amount recognized on December 31, 2024	18,565,653
(f)	Total unrecognized return as of December 31, 2019	$260,688,449

The market value, actuarial value and valuation value of assets are representations of the Plan's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The valuation value of assets is the actuarial value, excluding any non-valuation reserves. The valuation asset value is significant because the Plan's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

Market Value, Actuarial Value, and Valuation Value of Assets as of December 31, 2007 – 2019



C. Actuarial experience

To calculate any actuarially determined contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the actuarially determined contribution will decrease from the previous year. On the other hand, the actuarially determined contribution will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The total loss is $99.6 million, which includes $65.9 million from investment losses, a loss of $7.4 million from contribution experience and $26.3 million in losses from all other sources. The net experience variation from individual sources other than investments and contributions was 0.3% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

Actuarial Experience for Year Ended December 31, 2019

1	Net loss from investments[1]	$(65,905,000)
2	Net loss from contributions	(7,359,000)
3	Net loss from other experience[2]	(26,336,000)
4	**Net experience loss: 1 + 2 + 3**	**$(99,600,000)**

[1] Details on next page.
[2] See *Subsection E* for further details. Does not include the effect of plan or assumption changes, if any.

Investment experience

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the Plan's investment policy. The rate of return on the market value of assets was 17.86% for the year ended December 31, 2019.

For valuation purposes, the assumed rate of return on the valuation value of assets is 7.25%. The actual rate of return on a valuation basis for the 2019 plan year was 6.33%. Since the actual return for the year was less than the assumed return, the Plan experienced an actual loss during the year ended December 31, 2019 with regard to its investments.

Investment Experience for Year Ended December 31, 2019

		Market Value	Actuarial Value	Valuation Value
1	Net investment income	$1,342,794,799	$512,986,851	$455,280,174
2	Average value of assets	7,519,535,411	8,088,654,910	7,188,756,112
3	Rate of return: 1 ÷ 2	17.86%	6.34%	6.33%
4	Assumed rate of return	7.25%	7.25%	7.25%
5	Expected investment income: 2 x 4	$545,166,317	$586,427,481	$521,184,818
6	**Actuarial gain/(loss): 1 - 5**	**$797,628,482**	**$(73,440,630)**	**$(65,904,644)**

Section 2: Actuarial Valuation Results

Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial and valuation basis compared to the actual market value investment return for the last ten years, including averages over select time periods.

Investment Return – Market Value, Actuarial Value and Valuation Value: 2010 – 2019

	Market Value Investment Return[1]		Actuarial Value Investment Return[1]		Valuation Value Investment Return[1]	
Year Ended December 31	**Amount**	**Percent**	**Amount**	**Percent**	**Amount**	**Percent**
2010	$635,617,239	13.72%	$122,091,092	2.26%	$36,890,575	0.77%
2011	(53,810,165)	(1.04)%	164,671,046	3.03%	149,447,325	3.15%
2012	698,682,557	13.91%	91,936,980	1.67%	76,720,113	1.59%
2013	1,095,188,215	19.53%	533,248,385	9.73%	410,409,663	8.48%
2014	266,028,241	4.04%	710,015,277	12.05%	548,585,891	10.61%
2015	(19,960,005)	(0.30)%	569,295,018	8.78%	489,086,474	8.68%
2016	454,641,033	6.91%	452,144,779	6.53%	436,958,056	7.24%
2017	1,293,322,206	18.77%	640,343,891	8.85%	495,891,253	7.77%
2018	(371,111,618)	(4.62)%	507,081,208	6.56%	508,199,399	7.50%
2019	1,342,794,799	17.86%	512,986,851	6.34%	455,280,174	6.33%
Most recent five-year average return		**7.31%**		**7.41%**		**7.50%**
Most recent ten-year average return		**8.54%**		**6.53%**		**6.17%**

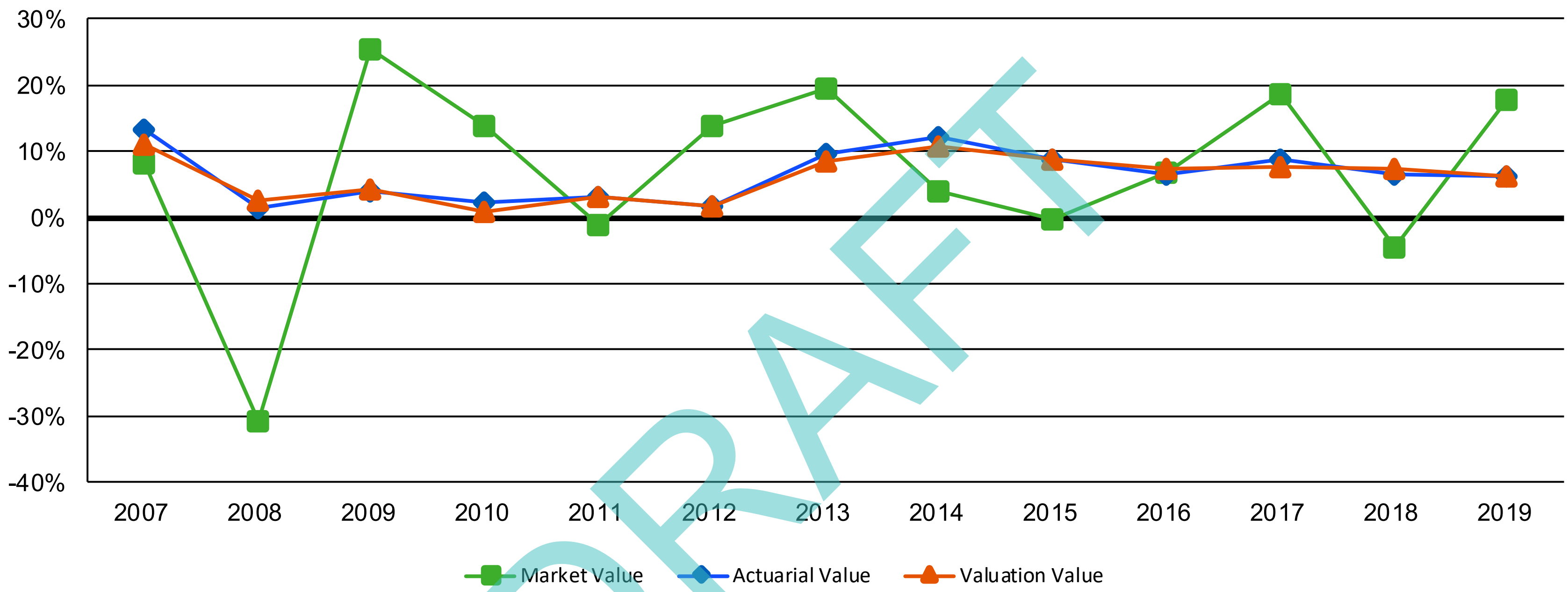
Note: Each year's yield is weighted by the average asset value in that year.

[1] Net of administrative and investment expenses.

Section 2: Actuarial Valuation Results

Subsection B described the actuarial asset valuation method that gradually recognizes fluctuations in the market value rate of return. The goal of this is to stabilize the actuarial rate of return and to produce more level pension plan costs.

Market, Actuarial and Valuation Value Rates of Return for Years Ended December 31, 2007 – 2019



Contributions

Contributions for the year ended December 31, 2019 totaled $401.6 million, compared to the projected amount of $408.7 million. This resulted in a loss of $7.4 million for the year, when adjusted for timing.

Non-investment experience

Other experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- the extent of turnover among participants.
- retirement experience (earlier or later than projected),
- mortality (more or fewer deaths than projected),
- the number of disability retirements (more or fewer than projected),
- salary increases (greater or smaller than projected), and
- cost-of-living adjustments (COLAs) higher or lower than anticipated.

The net loss from this other experience for the year ended December 31, 2019 amounted to $26.3 million, which is 0.3% of the actuarial accrued liability. About half of the loss was due to higher than expected individual salary increases for actives. See *Subsection E* for a detailed development of the unfunded actuarial accrued liability.

D. Other Changes in the Actuarial Accrued Liability

Actuarial assumptions

There are no assumption changes reflected in this report.

Details on actuarial assumptions and methods are in *Section 4, Exhibit I*.

Plan Provisions

There were no changes in plan provisions since the prior valuation.

A summary of plan provisions is in *Section 4, Exhibit II*.

E. Development of Unfunded Actuarial Accrued Liability

Development for Year Ended December 31, 2019
Total Plan

1	**Unfunded actuarial accrued liability at beginning of year**		**$2,137,070,000**
2	Total normal cost at middle of year		218,336,000
3	Expected employer and member contributions		(408,747,000)
4	Interest		148,783,000
5	Expected unfunded actuarial accrued liability		$2,095,442,000
6	Changes due to:		
	a) Investment return less than expected	$65,905,000	
	b) Actual contributions less than expected[1]	7,359,000	
	c) Individual salary increases higher than expected	13,106,000	
	d) Other experience loss	13,230,000	
	Total changes		$99,600,000
7	**Unfunded actuarial accrued liability at end of year**		**$2,195,042,000**

Note: The sum of items 6c through 6d equals the "Net loss from other experience" shown in *Section 2, Subsection C.*

[1] Includes impact of delay in rate implementation and difference between Normal Cost and UAAL contributions due to actual payroll different than expected during 2019.

E. Development of Unfunded Actuarial Accrued Liability (continued)

Development for Year Ended December 31, 2019
General (Excluding LARPD & Office of Education) Only

1	**Unfunded actuarial accrued liability at beginning of year**		**$1,269,655,000**
2	Total Normal cost at middle of year		158,675,000
3	Expected employer and member contributions		(271,836,000)
4	Interest		88,429,000
5	Expected unfunded actuarial accrued liability		$1,244,923,000
6	Changes due to:		
	a) Investment return less than expected	$49,318,000	
	b) Actual contributions less than expected[1]	4,402,000	
	c) Individual salary increases higher than expected	12,636,000	
	d) Other experience loss	8,011,000	
	Total changes		$74,367,000
7	**Unfunded actuarial accrued liability at end of year**		**$1,319,290,000**

[1] Includes impact of delay in rate implementation and difference between Normal Cost and UAAL contributions due to actual payroll different than expected during 2019.

E. Development of Unfunded Actuarial Accrued Liability (continued)

Development for Year Ended December 31, 2019
General (Office of Education) Only

1	**Unfunded actuarial accrued liability at beginning of year**		**$1,516,000**
2	Total Normal cost at middle of year		0
3	Expected employer and member contributions		(750,000)
4	Interest		69,000
5	Expected unfunded actuarial accrued liability		$835,000
6	Changes due to:		
	a) Investment return less than expected	$30,000	
	b) Actual contributions less than expected	0	
	c) Individual salary increases higher than expected	0	
	d) Other experience loss[1]	80,000	
	Total changes		$110,000
7	**Unfunded actuarial accrued liability at end of year**		**$945,000**

[1] Due primarily to fewer than expected deaths among continuing retirees.

E. Development of Unfunded Actuarial Accrued Liability (continued)

Development for Year Ended December 31, 2019
General (LARPD) Only

1	**Unfunded actuarial accrued liability at beginning of year**		**$13,501,000**
2	Total Normal cost at middle of year		1,075,000
3	Expected employer and member contributions		(2,169,000)
4	Interest		943,000
5	Expected unfunded actuarial accrued liability		$13,350,000
6	Changes due to:		
	a) Investment return less than expected	$408,000	
	b) Actual contributions less than expected[1]	348,000	
	c) Individual salary increases higher than expected	216,000	
	d) Other experience loss	8,000	
	Total changes		$980,000
7	**Unfunded actuarial accrued liability at end of year**		**$14,330,000**

[1] Includes impact of delay in rate implementation and difference between Normal Cost and UAAL contributions due to actual payroll different than expected during 2019.

E. Development of Unfunded Actuarial Accrued Liability (continued)

Development for Year Ended December 31, 2019
Safety Only

1	**Unfunded actuarial accrued liability at beginning of year**		**$852,398,000**
2	Total Normal cost at middle of year		58,586,000
3	Expected employer and member contributions		(133,992,000)
4	Interest		59,342,000
5	Expected unfunded actuarial accrued liability		$836,334,000
6	Changes due to:		
	a) Investment return less than expected	$16,149,000	
	b) Actual contributions less than expected[1]	2,609,000	
	c) Individual salary increases higher than expected	254,000	
	d) Other experience loss	5,131,000	
	Total changes		$24,143,000
7	**Unfunded actuarial accrued liability at end of year**		**$860,477,000**

[1] Includes impact of delay in rate implementation and difference between Normal Cost and UAAL contributions due to actual payroll different than expected during 2019.

F. Recommended Contribution

The recommended contribution is equal to the employer Normal Cost payment and a payment on the Unfunded Actuarial Accrued Liability. As of December 31, 2019, the average recommended employer contribution is 28.56% of compensation.

The Board sets the funding policy used to calculate the recommended contribution based on layered amortization periods. See *Section 4, Exhibit I* for further details on the funding policy.

The contribution requirement as of December 31, 2019 is based on the data previously described, the actuarial assumptions and Plan provisions described in *Section 4*, including all changes affecting future costs adopted at the time of the actuarial valuation, actuarial gains and losses, and changes in the actuarial assumptions.

Average Recommended Employer Contribution for Year Ended December 31

		2019		2018	
		Amount ($ in '000s)	**% of Projected Compensation**	**Amount ($ in '000s)**	**% of Projected Compensation**
1	Total normal cost	$224,598	19.89%	$218,336	19.96%
2	Expected member normal cost contributions	105,456	9.34%	102,139	9.34%
3	Employer normal cost: (1) - (2)	$119,142	10.55%	$116,197	10.62%
4	Actuarial accrued liability	9,795,019		9,376,397	
5	Valuation value of assets	7,599,977		7,239,327	
6	Unfunded actuarial accrued liability (UAAL): (4) - (5)	$2,195,042		$2,137,070	
7	Payment on UAAL	203,362	18.01%	189,661	17.34%
8	Projected compensation	1,129,175		1,093,735	
9	**Total average recommended employer contribution: (3) + (7)**	**$322,504**	**28.56%**	**$305,858**	**27.96%**

Note: Contributions are assumed to be paid at the middle of the year.

Reconciliation of Average Recommended Employer Contribution Rate

The charts below details the changes in the average recommended employer contribution rate from the prior valuation to the current year's valuation.

Reconciliation from December 31, 2018 to December 31, 2019
Total Plan

	Contribution Rate	Estimated Annual Dollar Amount[1] ($ in '000s)
Average Recommended Employer Contribution as of December 31, 2018[2]	**27.85%**	**$314,515**
• Effect of investment return less than expected	0.41%	4,630
• Effect of actual contributions less than expected[3]	0.05%	565
• Effect of individual salary increases higher than expected	0.06%	678
• Effect of amortizing prior year's UAAL over a smaller than expected total projected payroll	0.09%	1,016
• Effect of changes in member demographics on Normal Cost	0.01%	113
• Effect of other losses	0.09%	987
Total change	0.71%	7,989
Average Recommended Employer Contribution as of December 31, 2019	**28.56%**	**$322,504**

1 Based on December 31, 2019 projected compensation.
2 Determined by applying the recommended employer contribution rates as of December 31, 2018 to the projected compensation as of December 31, 2019 by cost group, membership class and tier.
3 Includes impact of delay in rate implementation and difference between Normal Cost and UAAL contributions due to actual payroll during 2019 different than expected.

Reconciliation of Average Recommended Employer Contribution Rate (continued)

Reconciliation from December 31, 2018 to December 31, 2019
General (Excluding LARPD & Office of Education) Only

	Contribution Rate	Estimated Annual Dollar Amount[1] ($ in '000s)
Average Recommended Employer Contribution as of December 31, 2018[2]	**21.51%**	**$203,927**
• Effect of investment return less than expected	0.37%	3,507
• Effect of actual contributions less than expected[3]	0.03%	284
• Effect of individual salary increases higher than expected	0.08%	758
• Effect of amortizing prior year's UAAL over a smaller than expected total projected payroll	0.01%	95
• Effect of changes in member demographics on Normal Cost	0.01%	95
• Effect of other losses	0.07%	648
Total change	0.57%	5,387
Average Recommended Employer Contribution as of December 31, 2019	**22.08%**	**$209,314**

1 Based on December 31, 2019 projected compensation.
2 Determined by applying the recommended employer contribution rates as of December 31, 2018 to the projected compensation as of December 31, 2019 by cost group, membership class and tier.
3 Includes impact of delay in rate implementation and difference between Normal Cost and UAAL contributions due to actual payroll during 2019 different than expected.

Reconciliation of Average Recommended Employer Contribution Rate (continued)

Reconciliation from December 31, 2018 to December 31, 2019
General (LARPD) Only

	Contribution Rate	Estimated Annual Dollar Amount[1] ($ in '000s)
Average Recommended Employer Contribution as of December 31, 2018[2]	**34.98%**	**$1,515**
• Effect of investment return less than expected	0.65%	28
• Effect of actual contributions less than expected[3]	0.58%	25
• Effect of individual salary increases higher than expected	0.47%	20
• Effect of amortizing prior year's UAAL over a smaller than expected total projected payroll[4]	2.80%	121
• Effect of changes in member demographics on Normal Cost	0.36%	16
• Effect of other gains	(0.01)%	0[5]
Total change	4.85%	210
Average Recommended Employer Contribution as of December 31, 2019	**39.83%**	**$1,725**

1 Based on December 31, 2019 projected compensation.
2 Determined by applying the recommended employer contribution rates as of December 31, 2018 to the projected compensation as of December 31, 2019 by cost group, membership class and tier.
3 Includes impact of delay in rate implementation and difference between Normal Cost and UAAL contributions due to actual payroll during 2019 different than expected.
4 Nine actives members in the December 31, 2018 valuation data were classified as either retired or vested terminated members in the December 31, 2019 valuation data; two new active members were added. This net reduction in the number of active members resulted in a reduction in projected compensation from $4,687,000 as of December 31, 2018 to $4,331,000 as of December 31, 2019 (versus an expected projected compensation of $4,851,000 for a reduction of about 12%).
5 Less than $1,000 when rounded.

Reconciliation of Average Recommended Employer Contribution Rate (continued)

Reconciliation from December 31, 2018 to December 31, 2019
Safety Only

	Contribution Rate	Estimated Annual Dollar Amount[1] ($ in '000s)
Average Recommended Employer Contribution as of December 31, 2018[2]	**61.62%**	**$109,073**
• Effect of investment return less than expected	0.65%	1,151
• Effect of actual contributions less than expected[3]	0.11%	195
• Effect of individual salary increases higher than expected	(0.03)%	(53)
• Effect of amortizing prior year's UAAL over a smaller than expected total projected payroll	0.47%	832
• Effect of changes in member demographics on Normal Cost	(0.05)%	(89)
• Effect of other losses	0.20%	356
Total change	1.35%	2,392
Average Recommended Employer Contribution as of December 31, 2019	**62.97%**	**$111,465**

[1] Based on December 31, 2019 projected compensation.
[2] Determined by applying the recommended employer contribution rates as of December 31, 2018 to the projected compensation as of December 31, 2019 by cost group, membership class and tier.
[3] Includes impact of delay in rate implementation and difference between Normal Cost and UAAL contributions due to actual payroll during 2019 different than expected.

Reconciliation of Average Recommended Member Contribution Rate

The charts below details the changes in the average recommended member contribution rate from the prior valuation to the current year's valuation.

Reconciliation from December 31, 2018 to December 31, 2019

	Contribution Rate	Estimated Annual Dollar Amount[1] ($ in '000s)
Average Recommended Member Contribution as of December 31, 2018	**9.33%**	**$105,359**
• Effect of changes in member demographics	0.01%	97
Average Recommended Member Contribution as of December 31, 2019	**9.34%**	**$105,456**

By Membership and Tier

	General Tier 1	General Tier 2	General Tier 3	General Tier 4
Average Recommended Member Contribution as of December 31, 2018	**9.47%**	**7.70%**	**14.13%**	**8.80%**
• Effect of changes in member demographics	-0.04%	0.00%	0.28%	0.05%
Average Recommended Member Contribution as of December 31, 2019	**9.43%**	**7.70%**	**14.41%**	**8.85%**

	Safety Tier 1	Safety Tier 2	Safety Tier 2C	Safety Tier 2D	Safety Tier 4
Average Recommended Member Contribution as of December 31, 2018	**10.12%**	**15.82%**	**13.52%**	**16.07%**	**15.58%**
• Effect of changes in member demographics	-0.16%	-0.01%	-0.04%	0.02%	-0.16%
Average Recommended Member Contribution as of December 31, 2019	**9.96%**	**15.81%**	**13.48%**	**16.09%**	**15.42%**

[1] Based on December 31, 2019 projected compensation.

Recommended Employer Contribution Rates[1]

County Only	December 31, 2019 Actuarial Valuation Basic	COLA	Total	Estimated Annual Dollar Amount[2] ($ in '000s)	December 31, 2018 Actuarial Valuation Basic	COLA	Total	Estimated Annual Dollar Amount[2] ($ in '000s)
General Tier 1 Members								
Normal Cost	7.57%	2.75%	10.32%	$783	7.55%	2.73%	10.28%	$780
UAAL (Before POB Credit)	13.96%	4.69%	18.65%	1,415	13.53%	4.53%	18.06%	1,370
Pension Obligation Bond Credit	-3.64%	-1.56%	-5.20%	-394	-3.64%	-1.57%	-5.21%	-395
Implicit Retiree Health Benefit Subsidy	-0.87%	0.00%	-0.87%	-66	-0.82%	0.00%	-0.82%	-62
Total Contributions	**17.02%**	**5.88%**	**22.90%**	**$1,738**	**16.62%**	**5.69%**	**22.31%**	**$1,693**
General Tier 2 Members								
Normal Cost	7.74%	1.60%	9.34%	$36,487	7.77%	1.60%	9.37%	$36,604
UAAL (Before POB Credit)	13.96%	4.69%	18.65%	72,857	13.53%	4.53%	18.06%	70,552
Pension Obligation Bond Credit	-3.64%	-1.56%	-5.20%	-20,314	-3.64%	-1.57%	-5.21%	-20,353
Implicit Retiree Health Benefit Subsidy	-0.87%	0.00%	-0.87%	-3,399	-0.82%	0.00%	-0.82%	-3,203
Total Contributions	**17.19%**	**4.73%**	**21.92%**	**$85,631**	**16.84%**	**4.56%**	**21.40%**	**$83,600**
General Tier 4 Members								
Normal Cost	7.22%	1.63%	8.85%	$19,046	7.18%	1.62%	8.80%	$18,938
UAAL (Before POB Credit)	13.96%	4.69%	18.65%	40,136	13.53%	4.53%	18.06%	38,867
Pension Obligation Bond Credit	-3.64%	-1.56%	-5.20%	-11,191	-3.64%	-1.57%	-5.21%	-11,212
Implicit Retiree Health Benefit Subsidy	-0.87%	0.00%	-0.87%	-1,872	-0.82%	0.00%	-0.82%	-1,765
Total Contributions	**16.67%**	**4.76%**	**21.43%**	**$46,119**	**16.25%**	**4.58%**	**20.83%**	**$44,828**

[1] For employers with active member payroll. The UAAL contribution for ACOE, expressed as a level dollar amount, is $89 K when made on April 1, 2021.

[2] Amounts are based on the December 31, 2019 projected compensation shown on page 47.

Recommended Employer Contribution Rates (continued)

County Only	December 31, 2019 Actuarial Valuation Basic	COLA	Total	Estimated Annual Dollar Amount[1] ($ in '000s)	December 31, 2018 Actuarial Valuation Basic	COLA	Total	Estimated Annual Dollar Amount[1] ($ in '000s)
Safety Tier 1 Members								
Normal Cost	29.04%	11.96%	41.00%	$312	28.37%	11.61%	39.98%	$304
Member Cost Sharing Contributions (Adjusted for Refunds)	-3.00%	0.00%	-3.00%	-23	-3.00%	0.00%	-3.00%	-23
UAAL (Before POB Credit)	38.85%	12.28%	51.13%	389	37.80%	11.78%	49.58%	377
Pension Obligation Bond Credit	-3.21%	-1.98%	-5.19%	-39	-3.17%	-1.97%	-5.14%	-39
Implicit Retiree Health Benefit Subsidy	-0.87%	0.00%	-0.87%	-7	-0.82%	0.00%	-0.82%	-6
Total Contributions	**60.81%**	**22.26%**	**83.07%**	**$632**	**59.18%**	**21.42%**	**80.60%**	**$613**
Safety Tier 2 Members								
Normal Cost	17.86%	3.67%	21.53%	$24,744	17.96%	3.69%	21.65%	$24,882
Member Cost Sharing Contributions (Adjusted for Refunds)	-2.94%	0.00%	-2.94%	-3,379	-2.93%	0.00%	-2.93%	-3,367
UAAL (Before POB Credit)	38.85%	12.28%	51.13%	58,763	37.80%	11.78%	49.58%	56,982
Pension Obligation Bond Credit	-3.21%	-1.98%	-5.19%	-5,965	-3.17%	-1.97%	-5.14%	-5,907
Implicit Retiree Health Benefit Subsidy	-0.87%	0.00%	-0.87%	-1,000	-0.82%	0.00%	-0.82%	-942
Total Contributions	**49.69%**	**13.97%**	**63.66%**	**$73,163**	**48.84%**	**13.50%**	**62.34%**	**$71,648**
Safety Tier 2C Members								
Normal Cost	16.31%	3.56%	19.87%	$619	16.51%	3.50%	20.01%	$623
Member Cost Sharing Contributions (Adjusted for Refunds)	0.00%	0.00%	0.00%	0	0.00%	0.00%	0.00%	0
UAAL (Before POB Credit)	38.85%	12.28%	51.13%	1,593	37.80%	11.78%	49.58%	1,544
Pension Obligation Bond Credit	-3.21%	-1.98%	-5.19%	-162	-3.17%	-1.97%	-5.14%	-160
Implicit Retiree Health Benefit Subsidy	-0.87%	0.00%	-0.87%	-27	-0.82%	0.00%	-0.82%	-26
Total Contributions	**51.08%**	**13.86%**	**64.94%**	**$2,023**	**50.32%**	**13.31%**	**63.63%**	**$1,981**

[1] Amounts are based on the December 31, 2019 projected compensation shown on page 47.

Recommended Employer Contribution Rates (continued)

County Only	December 31, 2019 Actuarial Valuation Basic	COLA	Total	Estimated Annual Dollar Amount[1] ($ in '000s)	December 31, 2018 Actuarial Valuation Basic	COLA	Total	Estimated Annual Dollar Amount[1] ($ in '000s)
Safety Tier 2D Members								
Normal Cost	17.45%	3.70%	21.15%	$3,313	17.22%	3.69%	20.91%	$3,276
Member Cost Sharing Contributions (Adjusted for Refunds)	-2.91%	0.00%	-2.91%	-456	-2.93%	0.00%	-2.93%	-459
UAAL (Before POB Credit)	38.85%	12.28%	51.13%	8,010	37.80%	11.78%	49.58%	7,767
Pension Obligation Bond Credit	-3.21%	-1.98%	-5.19%	-813	-3.17%	-1.97%	-5.14%	-805
Implicit Retiree Health Benefit Subsidy	-0.87%	0.00%	-0.87%	-136	-0.82%	0.00%	-0.82%	-128
Total Contributions	**49.31%**	**14.00%**	**63.31%**	**$9,918**	**48.10%**	**13.50%**	**61.60%**	**$9,651**
Safety Tier 4 Members								
Normal Cost	12.16%	3.26%	15.42%	$6,559	12.29%	3.29%	15.58%	$6,627
Member Cost Sharing Contributions (Adjusted for Refunds)	0.00%	0.00%	0.00%	0	0.00%	0.00%	0.00%	0
UAAL (Before POB Credit)	38.85%	12.28%	51.13%	21,748	37.80%	11.78%	49.58%	21,088
Pension Obligation Bond Credit	-3.21%	-1.98%	-5.19%	-2,208	-3.17%	-1.97%	-5.14%	-2,186
Implicit Retiree Health Benefit Subsidy	-0.87%	0.00%	-0.87%	-370	-0.82%	0.00%	-0.82%	-349
Total Contributions	**46.93%**	**13.56%**	**60.49%**	**$25,729**	**46.10%**	**13.10%**	**59.20%**	**$25,180**
All County Categories Combined								
Normal Cost	9.55%	2.07%	11.62%	$91,863	9.57%	2.07%	11.64%	$92,034
Member Cost Sharing Contributions (Adjusted for Refunds)	-0.49%	0.00%	-0.49%	-3,858	-0.49%	0.00%	-0.49%	-3,849
UAAL (Before POB Credit)	19.53%	6.39%	25.92%	204,911	18.96%	6.16%	25.12%	198,547
Pension Obligation Bond Credit	-3.54%	-1.66%	-5.20%	-41,086	-3.53%	-1.66%	-5.19%	-41,057
Implicit Retiree Health Benefit Subsidy	-0.87%	0.00%	-0.87%	-6,877	-0.82%	0.00%	-0.82%	-6,481
Total Contributions	**24.18%**	**6.80%**	**30.98%**	**$244,953**	**23.69%**	**6.57%**	**30.26%**	**$239,194**

[1] Amounts are based on the December 31, 2019 projected compensation shown on page 47.

Recommended Employer Contribution Rates (continued)

AHS, Court & First 5 Only	December 31, 2019 Actuarial Valuation Basic	COLA	Total	Estimated Annual Dollar Amount[1] ($ in '000s)	December 31, 2018 Actuarial Valuation Basic	COLA	Total	Estimated Annual Dollar Amount[1] ($ in '000s)
General Tier 1 Members								
Normal Cost	7.57%	2.75%	10.32%	$162	7.55%	2.73%	10.28%	$161
UAAL (Before POB Credit)	13.96%	4.69%	18.65%	292	13.53%	4.53%	18.06%	283
Pension Obligation Bond Credit	-3.64%	-1.56%	-5.20%	-81	-3.64%	-1.57%	-5.21%	-82
Total Contributions	**17.89%**	**5.88%**	**23.77%**	**$373**	**17.44%**	**5.69%**	**23.13%**	**$362**
General Tier 2 Members								
Normal Cost	7.74%	1.60%	9.34%	$18,156	7.77%	1.60%	9.37%	$18,214
UAAL (Before POB Credit)	13.96%	4.69%	18.65%	36,253	13.53%	4.53%	18.06%	35,106
Pension Obligation Bond Credit	-3.64%	-1.56%	-5.20%	-10,108	-3.64%	-1.57%	-5.21%	-10,128
Total Contributions	**18.06%**	**4.73%**	**22.79%**	**$44,301**	**17.66%**	**4.56%**	**22.22%**	**$43,192**
General Tier 4 Members								
Normal Cost	7.22%	1.63%	8.85%	$11,851	7.18%	1.62%	8.80%	$11,784
UAAL (Before POB Credit)	13.96%	4.69%	18.65%	24,973	13.53%	4.53%	18.06%	24,183
Pension Obligation Bond Credit	-3.64%	-1.56%	-5.20%	-6,963	-3.64%	-1.57%	-5.21%	-6,976
Total Contributions	**17.54%**	**4.76%**	**22.30%**	**$29,861**	**17.07%**	**4.58%**	**21.65%**	**$28,991**

[1] Amounts are based on the December 31, 2019 projected compensation shown on page 47.

Recommended Employer Contribution Rates (continued)

Housing Authority	December 31, 2019 Actuarial Valuation Basic	COLA	Total	Estimated Annual Dollar Amount[1] ($ in '000s)	December 31, 2018 Actuarial Valuation Basic	COLA	Total	Estimated Annual Dollar Amount[1] ($ in '000s)
General Tier 1 Members								
Normal Cost	7.57%	2.75%	10.32%	$297	7.55%	2.73%	10.28%	$296
UAAL	13.96%	4.69%	18.65%	537	13.53%	4.53%	18.06%	520
Total Contributions	**21.53%**	**7.44%**	**28.97%**	**$834**	**21.08%**	**7.26%**	**28.34%**	**$816**
General Tier 2 Members								
Normal Cost	7.74%	1.60%	9.34%	$21	7.77%	1.60%	9.37%	$21
UAAL	13.96%	4.69%	18.65%	42	13.53%	4.53%	18.06%	40
Total Contributions	**21.70%**	**6.29%**	**27.99%**	**$63**	**21.30%**	**6.13%**	**27.43%**	**$61**
General Tier 4 Members								
Normal Cost	7.22%	1.63%	8.85%	$127	7.18%	1.62%	8.80%	$126
UAAL	13.96%	4.69%	18.65%	267	13.53%	4.53%	18.06%	258
Total Contributions	**21.18%**	**6.32%**	**27.50%**	**$394**	**20.71%**	**6.15%**	**26.86%**	**$384**

[1] Amounts are based on the December 31, 2019 projected compensation shown on page 47.

Recommended Employer Contribution Rates (continued)

LARPD	December 31, 2019 Actuarial Valuation Basic	COLA	Total[1]	Estimated Annual Dollar Amount[2] ($ in '000s)	December 31, 2018 Actuarial Valuation Basic	COLA	Total[1]	Estimated Annual Dollar Amount[2] ($ in '000s)
General Tier 1 Members								
Normal Cost	7.57%	2.75%	10.32%	$64	7.55%	2.73%	10.28%	$64
UAAL	18.63%	9.12%	27.75%	173	15.70%	7.64%	23.34%	145
Total Contributions	**26.20%**	**11.87%**	**38.07%**	**$237**	**23.25%**	**10.37%**	**33.62%**	**$209**
General Tier 3 Members								
Normal Cost	11.82%	4.25%	16.07%	$291	10.92%	4.15%	15.07%	$273
UAAL	18.63%	9.12%	27.75%	503	15.70%	7.64%	23.34%	423
Total Contributions	**30.45%**	**13.37%**	**43.82%**	**$794**	**26.62%**	**11.79%**	**38.41%**	**$696**
General Tier 4 Members								
Normal Cost	7.22%	1.63%	8.85%	$168	7.18%	1.62%	8.80%	$167
UAAL	18.63%	9.12%	27.75%	526	15.70%	7.64%	23.34%	443
Total Contributions	**25.85%**	**10.75%**	**36.60%**	**$694**	**22.88%**	**9.26%**	**32.14%**	**$610**

[1] For LARPD, the combined rate is 39.83% as of December 31, 2019 and 34.98% as of December 31, 2018.

[2] Amounts are based on the December 31, 2019 projected compensation shown on page 47.

Recommended Employer Contribution Rates (continued)

All Categories Combined	December 31, 2019 Actuarial Valuation				December 31, 2018 Actuarial Valuation			
	Basic	COLA	Total	Estimated Annual Dollar Amount[1] ($ in '000s)	Basic	COLA	Total	Estimated Annual Dollar Amount[1] ($ in '000s)
All Categories Combined								
Normal Cost (Net)	8.61%	1.94%	10.55%	$119,142	8.62%	1.94%	10.56%	$119,291
UAAL (Net)	13.73%	4.28%	18.01%	203,362	13.23%	4.06%	17.29%	195,224
Total Contributions	**22.34%**	**6.22%**	**28.56%**	**$322,504**	**21.85%**	**6.00%**	**27.85%**	**$314,515**

Payroll Breakdown ($ in '000s)

	County Only	AHS, Court, & First 5	Housing Authority	LARPD	Total
General Tier 1	$7,586	$1,566	$2,879	$623	$12,654
General Tier 2	390,655	194,387	224		585,266
General Tier 3				1,811	1,811
General Tier 4	215,208	133,904	1,430	1,897	352,439
Safety Tier 1	761				761
Safety Tier 2	114,929				114,929
Safety Tier 2C	3,115				3,115
Safety Tier 2D	15,666				15,666
Safety Tier 4	42,534				42,534
Total	**$790,454**	**$329,857**	**$4,533**	**$4,331**	**$1,129,175**

[1] Amounts are based on the December 31, 2019 projected compensation shown above.

Recommended Employer Contribution Rates (continued)

A breakdown of the approximate[1] portion of the employer contribution rate by the various types of benefit is as follows:

	General	Safety
Service and non-service connected disability benefits	8%	24%
Service retirement and other benefits	92%	76%
Total	**100%**	**100%**

[1] In developing these percentages, we made the simplifying assumption that the liability for active and inactive members (including members who have already retired) can be approximated by the proportion of the normal cost required to fund disability and non-disability benefits.

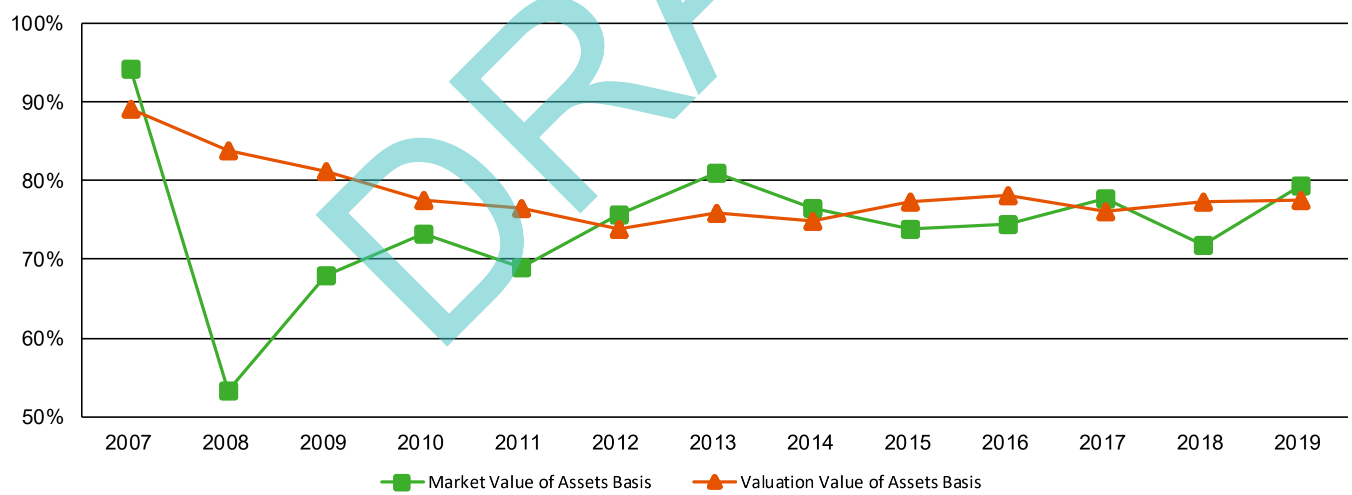
G. Funded Status

A commonly reported piece of information regarding the Plan's financial status is the funded ratio. These ratios compare the Market and Valuation Value of Assets to the Actuarial Accrued Liability of the Plan. High ratios indicate a well-funded plan with assets sufficient to cover the Plan's Actuarial Accrued Liability. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other changes.

The chart below depicts a history of the funded ratio for the Plan. The chart on the next page shows the Plan's schedule of funding progress for the last ten years.

The funded status measures shown in this valuation are appropriate for assessing the need for or amount of future contributions. However, they are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations. As the chart below shows, the measures are different depending on whether the Valuation or Market Value of Assets is used.

Funded Ratio for Years Ended December 31, 2007 – 2019[1]



[1] Prior to the December 31, 2013 valuation, the Funded Ratio on a Market Value basis was calculated using the end-of-year Valuation Value of Assets plus any deferred market gains. Beginning with the December 31, 2013 valuation, the Market Value of Assets for this purpose includes either one-half of any deferred market gains (after adjustment to include the balance in the Contingency Reserve) or a proportion of any deferred investment losses after netting out the Contingency Reserve that is commensurate with the size of the valuation reserves.

Schedule of Funding Progress for Years Ended December 31, 2010 – 2019

Actuarial Valuation Date as of December 31	Valuation Value of Assets[1] (a)	Actuarial Accrued Liability (AAL)[2] (b)	Unfunded AAL (UAAL) (b) - (a)	Funded Ratio (%) (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll (%) [(b) - (a)] / (c)
2010	$4,776,128,000	$6,162,740,000	$1,386,612,000	77.5%	$898,342,000	154.4%
2011	4,868,689,000	6,359,483,000	1,490,794,000	76.6%	892,489,000	167.0%
2012	4,883,872,000	6,612,929,000	1,729,057,000	73.9%	906,500,000	190.7%
2013	5,210,944,000	6,861,687,000	1,650,743,000	75.9%	916,803,000	180.1%
2014	5,681,097,000	7,592,072,000	1,910,975,000	74.8%	948,848,000	201.4%
2015	6,083,536,000	7,875,020,000	1,791,484,000	77.3%	969,534,000	184.8%
2016	6,436,138,000	8,237,715,000	1,801,577,000	78.1%	1,003,651,000	179.5%
2017	6,830,379,000	8,987,061,000	2,156,682,000	76.0%	1,055,661,000	204.3%
2018	7,239,327,000	9,376,397,000	2,137,070,000	77.2%	1,093,735,000	195.4%
2019	7,599,977,000	9,795,019,000	2,195,042,000	77.6%	1,129,175,000	194.4%

[1] Excludes assets for SRBR and other non-valuation reserves, and includes the following (whole dollar) reimbursement amounts of implicit retiree health benefit subsidy paid by the County (amounts beginning with the December 31, 2010 valuation date are estimates provided by ACERA):

Actuarial Valuation Date	Reimbursement Amount	For Year	Actuarial Valuation Date	Reimbursement Amount	For Year
12/31/2009	$5,287,767	2009	12/31/2015	$5,324,502	2015
12/31/2010	4,500,000	2010	12/31/2016	8,865,275	2016
12/31/2011	4,411,206	2011	12/31/2017	5,830,283	2017
12/31/2012	7,370,466	2012	12/31/2018	6,939,808	2018
12/31/2013	6,993,032	2013	12/31/2019	6,510,876	2019
12/31/2014	5,215,355	2014			

[2] Excludes liabilities for SRBR and other non-valuation reserves.

H. Actuarial Balance Sheet

An overview of the Plan's funding is given by an Actuarial Balance Sheet. In this approach, first the amount and timing of all future payments that will be made by the Plan for current participants is determined. Then these payments are discounted at the valuation interest rate to the date of the valuation, thereby determining the present value, referred to as the actuarial present value of future benefits of the Plan.

Second, this actuarial present value of future benefits is compared to the assets. The "assets" for this purpose include the net amount of assets already accumulated by the Plan, the present value of future member contributions, the present value of future employer normal cost contributions, and the present value of future employer amortization payments for the unfunded actuarial accrued liability.

Actuarial Balance Sheet for Year Ended December 31, 2019

	Basic ($ in '000s)	COLA ($ in '000s)	Total ($ in '000s)
Actuarial present value of future benefits			
• Present value of benefits for retired members and beneficiaries	$3,736,215	$2,270,011	$6,006,226
• Present value of benefits for inactive vested members	221,112	39,641	260,753
• Present value of benefits for active members	4,255,512	997,239	5,252,751
Total actuarial present value of future benefits	**$8,212,839**	**$3,306,891**	**$11,519,730**
Current and future assets			
• Total valuation value of assets	$5,164,550	$2,435,427	$7,599,977
• Present value of future contributions by members	705,079	175,682	880,761
• Present value of future employer contributions for:			
• Entry age normal cost	697,986	145,964	843,950
• Unfunded actuarial accrued liability	1,645,224	549,818	2,195,042
Total of current and future assets	**$8,212,839**	**$3,306,891**	**$11,519,730**

I. Volatility Ratios

Retirement plans are subject to volatility in the level of required contributions. This volatility tends to increase as retirement plans become more mature.

The Asset Volatility Ratio (AVR), which is equal to the market value of assets divided by total payroll, provides an indication of the potential contribution volatility for any given level of investment volatility. A higher AVR indicates that the plan is subject to a greater level of contribution volatility. This is a current measurement since it is based on the current level of assets.

The current AVR is about 6.9. This means that a 1% asset gain or loss (relative to the assumed investment return) translates to about 6.9% of one-year's payroll. Since actuarial gains and losses are amortized over 20 years, there would be a 0.5% of payroll decrease/(increase) in the required contribution for each 1% asset gain or loss.

The Liability Volatility Ratio (LVR), which is equal to the actuarial accrued liability divided by payroll, provides an indication of the longer-term potential for contribution volatility for any given level of investment volatility. This is because, over an extended period of time, the plan's assets should track the plan's liabilities.

The LVR also indicates how volatile contributions will be in response to changes in the actuarial accrued liability due to actual experience or to changes in actuarial assumptions. The current LVR is about 8.7, but is 7.4 for General (non-LARPD) compared to 14.1 for General (LARPD) and 15.4 for Safety. This means that assumption changes will have a greater impact on employer contribution rates for General (LARPD) and Safety than for General (non-LARPD).

The increase in the AVR and LVR for LARPD this year was caused by an about 12% reduction in the payroll for LARPD (relative to the assumption) as reported in the December 321, 2019 valuation.

The chart on the next page shows how the asset and liability volatility ratios have varied over time.

Volatility Ratios for Years Ended 2010 – 2019

	Asset Volatility Ratio[1,2]				Liability Volatility Ratio[2]			
Year Ended December 31	General (non-LARPD)	General (LARPD)	Safety	Total	General (non-LARPD)	General (LARPD)	Safety	Total
2010	4.6	3.9	7.0	5.0	6.0	5.6	11.2	6.9
2011	4.5	4.2	7.0	4.9	6.2	6.8	11.9	7.1
2012	5.0	4.9	8.2	5.5	6.3	7.0	12.7	7.3
2013	5.5	5.7	9.1	6.1	6.4	7.4	13.1	7.5
2014	5.5	5.9	9.3	6.1	6.9	7.7	13.9	8.0
2015	5.5	5.7	8.8	6.0	7.0	7.3	13.7	8.1
2016	5.6	6.1	8.9	6.1	7.1	7.7	13.8	8.2
2017	6.0	7.6	9.8	6.6	7.3	9.1	14.6	8.5
2018	5.5	9.0	9.5	6.2	7.3	12.5	15.1	8.6
2019	6.1	11.1	10.8	6.9	7.4	14.1	15.4	8.7

[1] Prior to the December 31, 2013 valuation, the Asset Volatility Ratio was calculated using the end-of-year Valuation Value of Assets plus any deferred market gains. Beginning with the December 31, 2013 valuation, the adjusted Valuation Value of Assets for this purpose includes either one-half of any deferred market gains (after restoring the Contingency Reserve to 1% of total assets, if applicable) or a proportion of any deferred investment losses after netting out the Contingency Reserve that is commensurate with the size of the valuation reserves.

[2] Prior to the December 31, 2018 valuation, volatility ratios for the General (non-LARPD) group were calculated including assets, liabilities, and payroll attributable to Tier 1 members from the Livermore Area Recreation and Park District (LARPD) and the Alameda County Office of Education (payroll was $0 as of December 31, 2017). Beginning with the December 31, 2018 valuation, the assets, liabilities, and payroll attributable to LARPD Tier 1 members are included in calculating the volatility ratios for the General (LARPD) group, and the assets and liabilities attributable to Office of Education Tier 1 members are excluded from this table.

J. Risk Assessment

Since the actuarial valuation results are dependent on a fixed set of assumptions and data as of a specific date, there is risk that emerging results may differ, perhaps significantly, as actual experience is fluid and will not exactly track current assumptions. This potential divergence may have a significant impact on the future financial condition of the plan.

This report does not contain a detailed analysis of the potential range of future measurements, but does include a concise discussion of some of the primary risks that may affect the Plan's future financial condition. We recommend a more detailed assessment of the risks to provide the Board with a better understanding of the risks inherent in the Plan that can inform both financial preparation and future decision making. This assessment would enable us to work with the Board to highlight and illustrate particular risks or potential future outcomes they may be interested in discussing and could include scenario testing, sensitivity testing, stress testing and stochastic modeling. As noted in the valuation highlights section of this report, a copy of the risk assessment report including the analysis recommended by Segal in consultation with ACERA staff will be available later in 2020.

This section provides descriptions and basic assessments of the primary risks that are likely to have an ongoing influence on the Plan's financial health, as well as a discussion of historical trends and maturity measures:

Risk Assessments

- Asset/Liability Mismatch Risk (the potential that future plan experience does not affect asset and liability values in the same way, causing them to diverge)

  The most significant asset/liability mismatch risk to the Plan is investment risk, as discussed below. In fact, investment risk has the potential to impact asset/liability mismatch in two ways. The first mismatch is evident in annual valuations: when asset values deviate from assumptions they are typically independent from liability changes. The second mismatch can be caused when systemic asset deviations from assumptions may signal the need for an assumption change, which causes liability values and contribution rates to move in the opposite direction from any change in the expected experience of asset growth rates.

  Asset/liability mismatch can also be caused by demographic assumption risk such as longevity, which affects liabilities but have no impact on asset levels. This risk is also discussed below.

- Investment Risk (the risk that investment returns will be different than expected)

  The investment return assumption is a long-term, static assumption for valuation purposes even though in reality market experience can be quite volatile in any given year. That volatility can cause significant changes in the financial condition of the Plan, affecting both funded status and contribution rates. The inherent year-to-year volatility is reduced by smoothing through the Actuarial Value of Assets, however investment experience can still have a sizable impact. As discussed in *Section 2,* *Subsection I, Volatility Ratios*, on page 52, a 1% asset gain or loss (relative to the assumed investment return) translates to about 6.9% of one-year's payroll. Since actuarial gains and losses are amortized over 20 years, there would be a 0.5% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss).

The year-by-year market value rate of return over the last 10 years has ranged from a low of -4.62% to a high of 19.53%.

- Longevity Risk (the risk that mortality experience will be different than expected)

  The actuarial valuation includes current life expectancy assumptions and an expectation of future improvement in life expectancy, which are significant assumptions given the relatively long duration of liabilities for pension plans. Emerging plan experience that does not match these expectations will result in increases or decreases in the actuarially determined contribution over time. This risk can be reduced by using tables appropriate for the Plan (public experience tables) that are weighted by benefit levels, and by using generational mortality projections.

- Other Risks

  In addition to longevity, the valuation includes a variety of other assumptions that are unlikely to match future experience exactly. One example is projected salary scales over time. As salary is central to the determination of benefits paid in retirement, deviations from the projected salary scales could have a material impact on the benefits anticipated for each member. Examples of demographic assumptions include retirement, termination and disability assumptions, and will likely vary in significance for different groups (for example, disability assumptions are typically more significant for Safety groups).

Some plans also carry significant contribution risk, defined as the potential for actual future contributions deviating from expected future contributions. However, the employer has a proven track-record of making the Actuarially Determined Contributions based on the Board's Actuarial Funding Policy, so contribution risk is minimal.

Evaluation of Historical Trends

Past experience can help demonstrate the sensitivity of key results to the Plan's actual experience. Over the past ten years:

- The funded percentage on the Valuation Value of Assets has fluctuated within a relatively narrow band from 73.9% to 78.1%. This is primarily due to contributions made to amortize the UAAL (i.e., amortizing each gain/loss layer of UAAL over 20 years) being roughly offset by lower than assumed average investment returns over recent years on a smoothed basis. For a more detailed history see *Section 2, Subsection G, Funded Status* starting on page 49.
- The geometric average investment return on the Actuarial Value of Assets over the last 10 years was 6.53%. This includes a high of 12.05% return and a low of 1.67%. The average over the last 5 years was 7.41%. For more details see the Investment Return table in *Section 2, Subsection C* on page 26.

- Beyond investment losses, the primary source of new UAAL was the strengthening of assumptions through multiple assumption changes. For example, the assumption changes in 2014 added $459 million in unfunded liability. The assumption changes in 2017 changed the discount rate from 7.60% to 7.25% (as well as various other changes) adding $396 million in unfunded liability. For more details on unfunded liability changes see *Section 3, Exhibit H, Table of Amortization Bases* starting on page 82. A graphical representation of historical changes in UAAL by source will be included in the stand-alone risk assessment report.
- The plan's funding policy effectively deals with these unfunded liabilities over time. This can be seen most clearly in the *Section 3, Exhibit I, Projection of UAAL Balances and Payments* provided on pages 88 and 89.

Maturity Measures

In the last 10 years the ratio of members in pay status to active participants has increased from 0.69 to 0.89. An increased ratio indicates that the plan has grown in maturity over time. This is to be expected, but is also informative to understanding plan sensitivity to particular risks. For more details see *Section 2, Subsection A, Member Data* on page 17.

As pension plans mature, the cash needed to fulfill benefit obligations will increase over time. Therefore, cash flow projections and analysis should be performed to assure that the Plan's asset allocation is aligned to meet emerging pension liabilities. For the prior year, benefits paid were $101 million more than contributions received. Plans with high levels of negative cash flows may have a need for a larger allocation to income generating assets, which can create a drag on investment return. However, the plan currently has a relatively low level of negative cash flow. For more details on historical cash flows see the Comparison of Contributions with Benefits in *Section 2, Subsection B* on page 21.

A further discussion of plan maturity measures and how they relate to changes in assets and liabilities is included in *Section 2, Subsection I, Volatility Ratios* starting on page 52.

Section 3: Supplemental Information

Exhibit A: Table of Plan Coverage

Total Plan

Category	Year Ended December 31 2019	Year Ended December 31 2018	Change From Prior Year
Active members in valuation:			
• Number	11,336	11,349	-0.1%
• Average age	47.1	47.0	0.1
• Average years of service	11.3	11.4	-0.1
• Total projected compensation	$1,129,176,948	$1,093,735,678	3.2%
• Average projected compensation	$99,610	$96,373	3.4%
• Account balances	$1,258,309,062	$1,223,982,697	2.8%
• Total active vested members	7,699	7,665	0.4%
Inactive vested members:			
• Number[1]	2,821	2,568	9.9%
• Average Age	47.3	47.9	-0.6
Retired members:			
• Number in pay status	7,888	7,628	3.4%
• Average age	72.1	72.0	0.1
• Average monthly benefit[2]	$4,425	$4,301	2.9%
Disabled members:			
• Number in pay status	951	924	2.9%
• Average age	64.7	64.7	0.0
• Average monthly benefit[2]	$3,672	$3,565	3.0%
Beneficiaries:			
• Number in pay status	1,239	1,231	0.6%
• Average age	75.5	75.2	0.3
• Average monthly benefit[2]	$2,448	$2,329	5.1%

Notes: For all the General and Safety Tiers combined, the average age at retirement for the service retirees and disabled retirees was 60.1 and 49.8, respectively.

1 Includes inactive members due a refund of member contributions.
2 Excludes supplemental benefits paid from SRBR.

Exhibit A: Table of Plan Coverage (continued)

General Tier 1

Category	Year Ended December 31 2019	Year Ended December 31 2018	Change From Prior Year
Active members in valuation:			
• Number	133	158	-15.8%
• Average age	60.6	60.0	0.6
• Average years of service	30.3	29.9	0.4
• Total projected compensation	$12,653,976	$14,710,117	-14.0%
• Average projected compensation	$95,143	$93,102	2.2%
• Account balances	$55,949,318	$63,233,064	-11.5%
• Total active vested members	133	158	-15.8%
Inactive vested members:			
• Number[1]	43	52	-17.3%
• Average Age	62.7	62.3	0.4
Retired members:			
• Number in pay status	3,084	3,189	-3.3%
• Average age	76.8	76.3	0.5
• Average monthly benefit[2]	$5,143	$4,902	4.9%
Disabled members:			
• Number in pay status	143	151	-5.3%
• Average age	74.3	73.8	0.5
• Average monthly benefit[2]	$3,348	$3,209	4.3%
Beneficiaries:			
• Number in pay status	680	706	-3.7%
• Average age	80.3	79.9	0.4
• Average monthly benefit[2]	$2,465	$2,332	5.7%

Notes: Based on the data provided for the December 31, 2019 actuarial valuation, the average age at retirement for the General Tier 1 service and disabled retirees was 59.3 and 51.7, respectively.

[1] Includes inactive members due a refund of member contributions.
[2] Excludes supplemental benefits paid from SRBR.

Exhibit A: Table of Plan Coverage (continued)

General Tier 2

Category	Year Ended December 31 2019	2018	Change From Prior Year
Active members in valuation:			
• Number	5,659	6,075	-6.8%
• Average age	52.1	51.6	0.5
• Average years of service	16.6	15.9	0.7
• Total projected compensation	$585,265,989	$600,715,279	-2.6%
• Average projected compensation	$103,422	$98,883	4.6%
• Account balances	$774,077,768	$772,973,971	0.1%
• Total active vested members	5,528	5,926	-6.7%
Inactive vested members:			
• Number[1]	1,768	1,792	-1.3%
• Average Age	50.3	50.0	0.3
Retired members:			
• Number in pay status	3,562	3,250	9.6%
• Average age	69.6	69.4	0.2
• Average monthly benefit[2]	$2,855	$2,693	6.0%
Disabled members:			
• Number in pay status	472	458	3.1%
• Average age	64.8	64.5	0.3
• Average monthly benefit[2]	$2,681	$2,616	2.5%
Beneficiaries:			
• Number in pay status	283	255	11.0%
• Average age	68.0	66.8	1.2
• Average monthly benefit[2]	$1,447	$1,360	6.4%

Notes: Based on the data provided for the December 31, 2019 actuarial valuation, the average age at retirement for the General Tier 2 service and disabled retirees was 62.5 and 50.6, respectively.

[1] Includes inactive members due a refund of member contributions.
[2] Excludes supplemental benefits paid from SRBR.

Exhibit A: Table of Plan Coverage (continued)

General Tier 3

Category	Year Ended December 31 2019	Year Ended December 31 2018	Change From Prior Year
Active members in valuation:			
• Number	20	24	-16.7%
• Average age	53.9	54.0	-0.1
• Average years of service	14.0	15.8	-1.8
• Total projected compensation	$1,811,498	$2,050,537	-11.7%
• Average projected compensation	$90,575	$85,439	6.0%
• Account balances	$3,421,771	$4,558,015	-24.9%
• Total active vested members	18	22	-18.2%
Inactive vested members:			
• Number[1]	13	12	8.3%
• Average Age	49.5	49.2	0.3
Retired members:			
• Number in pay status	30	26	15.4%
• Average age	63.4	63.0	0.4
• Average monthly benefit[2]	$4,429	$4,169	6.2%
Disabled members:			
• Number in pay status	1	1	0.0%
• Average age	66.1	65.1	1.0
• Average monthly benefit[2]	$2,191	$2,127	3.0%
Beneficiaries:			
• Number in pay status	3	3	0.0%
• Average age	63.0	62.0	1.0
• Average monthly benefit[2]	$3,493	$3,391	3.0%

Notes: Based on the data provided for the December 31, 2019 actuarial valuation, the average age at retirement for the General Tier 3 service and disabled retirees was 58.7 and 62.6, respectively.

[1] Includes inactive members due a refund of member contributions.
[2] Excludes supplemental benefits paid from SRBR.

Exhibit A: Table of Plan Coverage (continued)

General Tier 4

Category	Year Ended December 31 2019	Year Ended December 31 2018	Change From Prior Year
Active members in valuation:			
• Number	4,148	3,703	12.0%
• Average age	41.0	40.2	0.8
• Average years of service	3.1	2.7	0.4
• Total projected compensation	$352,439,734[1]	$303,387,662	16.2%
• Average projected compensation	$84,966	$81,930	3.7%
• Account balances	$88,004,346	$62,652,374	40.5%
• Total active vested members	895	450	98.9%
Inactive vested members:			
• Number[2]	820	552	48.6%
• Average Age	40.5	40.0	0.5
Retired members:			
• Number in pay status	21	8	162.5%
• Average age	67.1	69.6	-2.5
• Average monthly benefit[3]	$1,178	$1,447	-18.6%
Disabled members:			
• Number in pay status	2	1	100.0%
• Average age	61.3	66.9	-5.6
• Average monthly benefit[3]	$2,017	$1,727	16.8%
Beneficiaries:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[3]	N/A	N/A	N/A

Notes: Based on the data provided for the December 31, 2019 actuarial valuation, the average age at retirement for the General Tier 4 service and disabled retirees was 66.0 and 58.2, respectively.

[1] Projected compensation for 2020 has been limited. It is our understanding that in the determination of pension benefits under the CalPEPRA formulas, the compensation that can be taken into account for 2020 is equal to $126,291. (For an employer that is not enrolled in Social Security, the maximum amount is 120% of $126,291, or $151,549). (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2020. (reference: Section 7522.10(d)).

[2] Includes inactive members due a refund of member contributions.

[3] Excludes supplemental benefits paid from SRBR.

Exhibit A: Table of Plan Coverage (continued)

Safety Tier 1

Category	Year Ended December 31: 2019	Year Ended December 31: 2018	Change From Prior Year
Active members in valuation:			
• Number	3	4	-25.0%
• Average age	64.5	61.9	2.6
• Average years of service	29.2	29.2	0.0
• Total projected compensation	$761,481	$972,954	-21.7%
• Average projected compensation	$253,827	$243,239	4.4%
• Account balances	$3,309,986	$3,992,044	-17.1%
• Total active vested members	3	4	-25.0%
Inactive vested members:			
• Number[1]	6	8	-25.0%
• Average Age	62.7	59.4	3.3
Retired members:			
• Number in pay status	605	612	-1.1%
• Average age	73.0	72.2	0.8
• Average monthly benefit[2]	$8,546	$8,303	2.9%
Disabled members:			
• Number in pay status	94	99	-5.1%
• Average age	70.4	69.7	0.7
• Average monthly benefit[2]	$5,874	$5,750	2.2%
Beneficiaries:			
• Number in pay status	196	195	0.5%
• Average age	75.4	74.8	0.6
• Average monthly benefit[2]	$3,743	$3,481	7.5%

Notes: Based on the data provided for the December 31, 2019 actuarial valuation, the average age at retirement for the Safety Tier 1 service and disabled retirees was 54.9 and 48.4, respectively.

[1] Includes inactive members due a refund of member contributions.
[2] Excludes supplemental benefits paid from SRBR.

Exhibit A: Table of Plan Coverage (continued)

Safety Tier 2

Category	Year Ended December 31 2019	2018	Change From Prior Year
Active members in valuation:			
• Number	844	917	-8.0%
• Average age	47.1	46.5	0.6
• Average years of service	17.1	16.3	0.8
• Total projected compensation	$114,928,537	$119,570,783	-3.9%
• Average projected compensation	$136,171	$130,393	4.4%
• Account balances	$293,552,702	$285,854,627	2.7%
• Total active vested members	844	916	-7.9%
Inactive vested members:			
• Number[1]	122	125	-2.4%
• Average Age	47.2	47.1	0.1
Retired members:			
• Number in pay status	579	537	7.8%
• Average age	63.0	62.8	0.2
• Average monthly benefit[2]	$6,107	$5,982	2.1%
Disabled members:			
• Number in pay status	233	212	9.9%
• Average age	56.7	56.5	0.2
• Average monthly benefit[2]	$4,996	$4,855	2.9%
Beneficiaries:			
• Number in pay status	77	72	6.9%
• Average age	61.7	60.1	1.6
• Average monthly benefit[2]	$2,634	$2,573	2.4%

Notes: Based on the data provided for the December 31, 2019 actuarial valuation, the average age at retirement for the Safety Tier 2 service and disabled retirees was 55.6 and 47.3, respectively.

[1] Includes inactive members due a refund of member contributions.
[2] Excludes supplemental benefits paid from SRBR.

Exhibit A: Table of Plan Coverage (continued)

Safety Tier 2C

Category	Year Ended December 31 2019	2018	Change From Prior Year
Active members in valuation:			
• Number	25	28	-10.7%
• Average age	44.0	43.2	0.8
• Average years of service	9.1	8.0	1.1
• Total projected compensation	$3,115,284	$3,348,788	-7.0%
• Average projected compensation	$124,611	$119,600	4.2%
• Account balances	$2,926,564	$2,724,956	7.4%
• Total active vested members	24	24	0.0%
Inactive vested members:			
• Number[1]	10	7	42.9%
• Average Age	45.0	44.6	0.4
Retired members:			
• Number in pay status	1	1	0.0%
• Average age	52.5	51.5	1.0
• Average monthly benefit[2]	$858	$841	2.0%
Disabled members:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[2]	N/A	N/A	N/A
Beneficiaries:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[2]	N/A	N/A	N/A

Notes: Based on the data provided for the December 31, 2019 actuarial valuation, the average age at retirement for the Safety Tier 2C service retirees was 50.0.

[1] Includes inactive members due a refund of member contributions.
[2] Excludes supplemental benefits paid from SRBR.

Exhibit A: Table of Plan Coverage (continued)

Safety Tier 2D

Category	Year Ended December 31 2019	Year Ended December 31 2018	Change From Prior Year
Active members in valuation:			
• Number	125	121	3.3%
• Average age	41.1	39.9	1.2
• Average years of service	8.9	8.0	0.9
• Total projected compensation	$15,666,177	$14,392,198	8.9%
• Average projected compensation	$125,329	$118,944	5.4%
• Account balances	$16,239,989	$13,249,563	22.6%
• Total active vested members	110	102	7.8%
Inactive vested members:			
• Number[1]	12	10	20.0%
• Average Age	41.3	40.7	0.6
Retired members:			
• Number in pay status	1	2	-50.0%
• Average age	53.7	56.0	-2.3
• Average monthly benefit[2]	$616	$1,182	-47.9%
Disabled members:			
• Number in pay status	6	2	200.0%
• Average age	49.6	45.4	4.2
• Average monthly benefit[2]	$4,254	$4,586	-7.2%
Beneficiaries:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[2]	N/A	N/A	N/A

Notes: Based on the data provided for the December 31, 2019 actuarial valuation, the average age at retirement for the Safety Tier 2D service and disabled retirees was 52.0 and 47.9, respectively.

[1] Includes inactive members due a refund of member contributions.
[2] Excludes supplemental benefits paid from SRBR.

Exhibit A: Table of Plan Coverage (continued)

Safety Tier 4

Category	Year Ended December 31 2019	2018	Change From Prior Year
Active members in valuation:			
• Number	379	319	18.8%
• Average age	36.1	35.9	0.2
• Average years of service	3.8	3.5	0.3
• Total projected compensation	$42,534,273[1]	$34,587,361	23.0%
• Average projected compensation	$112,228	$108,424	3.5%
• Account balances	$20,826,619	$14,744,082	41.3%
• Total active vested members	144	63	128.6%
Inactive vested members:			
• Number[2]	27	10	170.0%
• Average Age	34.1	36.4	-2.3
Retired members:			
• Number in pay status	5	3	66.7%
• Average age	59.9	57.4	2.5
• Average monthly benefit[3]	$1,437	$1,478	-2.8%
Disabled members:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[3]	N/A	N/A	N/A
Beneficiaries:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[3]	N/A	N/A	N/A

Notes: Based on the data provided for the December 31, 2019 actuarial valuation, the average age at retirement for the Safety Tier 4 service retirees was 58.9.

[1] Projected compensation for 2020 has been limited. It is our understanding that in the determination of pension benefits under the CalPEPRA formulas, the compensation that can be taken into account for 2020 is equal to $126,291. (For an employer that is not enrolled in Social Security, the maximum amount is 120% of $126,291, or $151,549). (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2020. (reference: Section 7522.10(d)).

[2] Includes inactive members due a refund of member contributions.

[3] Excludes supplemental benefits paid from SRBR.

Exhibit B: Members in Active Service as of December 31, 2019 by Age, Years of Service, and Average Projected Compensation

Total Plan

		Years of Service								
Age	**Total**	**0 – 4**	**5 – 9**	**10 – 14**	**15 – 19**	**20 – 24**	**25 – 29**	**30 – 34**	**35 – 39**	**40 & over**
Under 25	106	106	- -	- -	- -	- -	- -	- -	- -	- -
	$65,779	$65,779	- -	- -	- -	- -	- -	- -	- -	- -
25 – 29	604	547	57	- -	- -	- -	- -	- -	- -	- -
	78,791	77,722	$89,056	- -	- -	- -	- -	- -	- -	- -
30 – 34	1,235	819	364	52	- -	- -	- -	- -	- -	- -
	89,308	85,629	96,627	$96,016	- -	- -	- -	- -	- -	- -
35 – 39	1,499	637	441	383	37	1	- -	- -	- -	- -
	97,149	87,876	100,349	107,558	$108,414	$189,374	- -	- -	- -	- -
40 – 44	1,512	463	350	396	252	51	- -	- -	- -	- -
	101,949	92,042	100,044	111,529	105,282	114,117	- -	- -	- -	- -
45 – 49	1,669	357	280	351	417	230	33	1	- -	- -
	106,733	92,490	103,417	110,711	111,068	119,249	$105,482	$79,016	- -	- -
50 – 54	1,562	297	220	260	347	235	157	45	1	- -
	105,725	99,004	102,184	105,872	107,156	116,062	107,322	96,043	$102,598	- -
55 – 59	1,503	224	198	223	309	192	172	160	25	- -
	101,561	92,209	105,156	104,519	96,848	104,439	107,225	106,611	95,357	- -
60 – 64	1,115	144	173	157	221	147	118	108	41	6
	103,643	92,488	108,326	100,326	100,948	105,626	105,675	111,828	116,071	$101,537
65 – 69	419	44	73	80	70	53	33	46	14	6
	101,070	97,303	103,839	92,379	91,585	97,359	108,808	113,354	126,807	157,540
70 & over	112	15	15	18	24	10	16	5	2	7
	95,617	85,274	114,975	83,364	95,467	101,439	91,820	83,888	98,478	116,248
Total	**11,336**	**3,653**	**2,171**	**1,920**	**1,677**	**919**	**529**	**365**	**83**	**19**
	$99,610	**$87,645**	**$101,253**	**$106,609**	**$104,340**	**$111,496**	**$106,432**	**$107,315**	**$111,056**	**$124,642**

Notes: Age and years of service were projected from November 30, 2019 to December 31, 2019.

Exhibit B: Members in Active Service as of December 31, 2019 by Age, Years of Service, and Average Projected Compensation (continued)

General Tier 1

		Years of Service								
Age	Total	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 – 39	40 & over
Under 25	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
25 – 29	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
30 – 34	1	- -	1	- -	- -	- -	- -	- -	- -	- -
	$61,296	- -	$61,296	- -	- -	- -	- -	- -	- -	- -
35 – 39	2	- -	- -	2	- -	- -	- -	- -	- -	- -
	71,012	- -	- -	$71,012	- -	- -	- -	- -	- -	- -
40 – 44	6	- -	2	3	1	- -	- -	- -	- -	- -
	82,837	- -	74,667	70,864	$135,095	- -	- -	- -	- -	- -
45 – 49	5	- -	1	2	2	- -	- -	- -	- -	- -
	73,313	- -	55,082	85,807	69,933	- -	- -	- -	- -	- -
50 – 54	10	- -	- -	3	6	1	- -	- -	- -	- -
	83,596	- -	- -	67,167	93,607	$72,821	- -	- -	- -	- -
55 – 59	24	- -	- -	- -	4	2	1	4	13	- -
	84,391	- -	- -	- -	74,156	76,308	$60,788	$88,586	$89,308	- -
60 – 64	51	- -	3	3	1	1	3	7	27	6
	97,635	- -	101,436	83,067	73,173	143,952	61,511	94,138	102,076	$101,537
65 – 69	27	- -	- -	2	2	2	2	3	10	6
	108,615	- -	- -	129,108	83,927	64,597	96,164	80,386	99,861	157,540
70 & over	7	- -	- -	- -	- -	- -	- -	- -	- -	7
	116,248	- -	- -	- -	- -	- -	- -	- -	- -	116,248
Total	**133**	**- -**	**7**	**15**	**16**	**6**	**6**	**14**	**50**	**19**
	$95,143	**- -**	**$81,432**	**$82,343**	**$85,891**	**$83,097**	**$72,941**	**$89,605**	**$98,313**	**$124,642**

Notes: Age and years of service were projected from November 30, 2019 to December 31, 2019.

Exhibit B: Members in Active Service as of December 31, 2019 by Age, Years of Service, and Average Projected Compensation (continued)

General Tier 2

		Years of Service								
Age	**Total**	**0 – 4**	**5 – 9**	**10 – 14**	**15 – 19**	**20 – 24**	**25 – 29**	**30 – 34**	**35 – 39**	**40 & over**
Under 25	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
25 – 29	5	2	3	- -	- -	- -	- -	- -	- -	- -
	$60,212	$56,971	$62,372	- -	- -	- -	- -	- -	- -	- -
30 – 34	158	12	115	31	- -	- -	- -	- -	- -	- -
	88,008	101,171	91,039	$71,670	- -	- -	- -	- -	- -	- -
35 – 39	487	21	194	248	24	- -	- -	- -	- -	- -
	101,953	114,695	108,316	97,506	$85,322	- -	- -	- -	- -	- -
40 – 44	738	26	192	295	191	34	- -	- -	- -	- -
	102,684	138,341	104,274	105,785	93,840	$89,212	- -	- -	- -	- -
45 – 49	926	23	145	278	315	137	27	1	- -	- -
	106,078	140,974	109,994	106,507	104,696	101,248	$92,538	$79,016	- -	- -
50 – 54	1,024	16	134	226	281	179	145	42	1	- -
	105,983	171,483	109,562	104,251	102,679	110,027	103,390	92,836	$102,598	- -
55 – 59	1,106	16	113	197	281	170	168	149	12	- -
	102,101	124,375	105,988	103,136	94,584	100,772	106,539	106,093	101,910	- -
60 – 64	826	13	98	143	211	139	113	98	11	- -
	105,979	117,179	120,310	98,112	100,332	105,286	106,364	111,812	128,516	- -
65 – 69	304	2	42	71	66	46	31	43	3	- -
	100,077	111,693	107,252	89,095	87,922	97,964	109,623	115,654	229,648	- -
70 & over	85	1	10	18	24	9	16	5	2	- -
	93,965	87,393	126,268	83,364	95,467	84,411	91,820	83,888	98,478	- -
Total	**5,659**	**132**	**1,046**	**1,507**	**1,393**	**714**	**500**	**338**	**29**	**- -**
	$103,422	**$129,877**	**$106,936**	**$101,495**	**$98,812**	**$103,125**	**$104,551**	**$106,912**	**$125,003**	**- -**

Notes: Age and years of service were projected from November 30, 2019 to December 31, 2019.

Exhibit B: Members in Active Service as of December 31, 2019 by Age, Years of Service, and Average Projected Compensation (continued)

General Tier 3

		Years of Service								
Age	**Total**	**0 – 4**	**5 – 9**	**10 – 14**	**15 – 19**	**20 – 24**	**25 – 29**	**30 – 34**	**35 – 39**	**40 & over**
Under 25	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
25 – 29	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
30 – 34	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
35 – 39	2	2	- -	- -	- -	- -	- -	- -	- -	- -
	$109,341	$109,341	- -	- -	- -	- -	- -	- -	- -	- -
40 – 44	1	- -	- -	- -	- -	1	- -	- -	- -	- -
	74,323	- -	- -	- -	- -	$74,323	- -	- -	- -	- -
45 – 49	2	- -	1	- -	- -	1	- -	- -	- -	- -
	78,428	- -	$74,823	- -	- -	82,033	- -	- -	- -	- -
50 – 54	4	- -	2	1	- -	1	- -	- -	- -	- -
	80,363	- -	86,758	$74,323	- -	73,613	- -	- -	- -	- -
55 – 59	6	- -	1	3	2	- -	- -	- -	- -	- -
	92,683	- -	103,200	100,117	$76,275	- -	- -	- -	- -	- -
60 – 64	4	- -	2	- -	1	1	- -	- -	- -	- -
	99,085	- -	107,729	- -	73,717	107,165	- -	- -	- -	- -
65 – 69	1	- -	- -	- -	- -	- -	- -	- -	1	- -
	87,746	- -	- -	- -	- -	- -	- -	- -	$87,746	- -
70 & over	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total	**20**	**2**	**6**	**4**	**3**	**4**	**- -**	**- -**	**1**	**- -**
	$90,575	**$109,341**	**$94,500**	**$93,668**	**$75,423**	**$84,283**	**- -**	**- -**	**$87,746**	**- -**

Notes: Age and years of service were projected from November 30, 2019 to December 31, 2019.

Exhibit B: Members in Active Service as of December 31, 2019 by Age, Years of Service, and Average Projected Compensation (continued)

General Tier 4

		Years of Service								
Age	**Total**	**0 – 4**	**5 – 9**	**10 – 14**	**15 – 19**	**20 – 24**	**25 – 29**	**30 – 34**	**35 – 39**	**40 & over**
Under 25	93	93	- -	- -	- -	- -	- -	- -	- -	- -
	$61,889	$61,889	- -	- -	- -	- -	- -	- -	- -	- -
25 – 29	508	476	32	- -	- -	- -	- -	- -	- -	- -
	74,567	74,743	$71,936	- -	- -	- -	- -	- -	- -	- -
30 – 34	900	743	157	- -	- -	- -	- -	- -	- -	- -
	84,676	84,227	86,803	- -	- -	- -	- -	- -	- -	- -
35 – 39	770	573	194	3	- -	- -	- -	- -	- -	- -
	85,581	85,400	86,379	$68,384	- -	- -	- -	- -	- -	- -
40 – 44	545	417	122	5	1	- -	- -	- -	- -	- -
	87,530	87,593	87,993	72,073	$82,033	- -	- -	- -	- -	- -
45 – 49	440	324	113	2	1	- -	- -	- -	- -	- -
	89,040	88,093	91,151	126,291	82,985	- -	- -	- -	- -	- -
50 – 54	337	259	74	2	2	- -	- -	- -	- -	- -
	89,623	90,762	85,618	76,529	103,420	- -	- -	- -	- -	- -
55 – 59	266	198	61	6	- -	- -	1	- -	- -	- -
	88,485	87,082	91,645	96,335	- -	- -	$126,291	- -	- -	- -
60 – 64	193	129	61	2	1	- -	- -	- -	- -	- -
	88,004	89,542	83,303	113,017	126,291	- -	- -	- -	- -	- -
65 – 69	77	42	31	4	- -	- -	- -	- -	- -	- -
	96,605	96,617	99,215	76,255	- -	- -	- -	- -	- -	- -
70 & over	19	14	5	- -	- -	- -	- -	- -	- -	- -
	87,034	85,122	92,388	- -	- -	- -	- -	- -	- -	- -
Total	**4,148**	**3,268**	**850**	**24**	**5**	**- -**	**1**	**- -**	**- -**	**- -**
	$84,966	**$84,292**	**$87,374**	**$86,676**	**$99,630**	**- -**	**$126,291**	**- -**	**- -**	**- -**

Notes: Age and years of service were projected from November 30, 2019 to December 31, 2019.

Exhibit B: Members in Active Service as of December 31, 2019 by Age, Years of Service, and Average Projected Compensation (continued)

Safety Tier 1

		Years of Service								
Age	**Total**	**0 – 4**	**5 – 9**	**10 – 14**	**15 – 19**	**20 – 24**	**25 – 29**	**30 – 34**	**35 – 39**	**40 & over**
Under 25	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
25 – 29	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
30 – 34	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
35 – 39	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
40 – 44	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
45 – 49	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
50 – 54	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
55 – 59	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
60 – 64	2	- -	- -	- -	- -	- -	- -	1	1	- -
	$238,240	- -	- -	- -	- -	- -	- -	$122,919	$353,562	- -
65 – 69	1	- -	- -	- -	1	- -	- -	- -	- -	- -
	285,000	- -	- -	- -	$285,000	- -	- -	- -	- -	- -
70 & over	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total	**3**	**- -**	**- -**	**- -**	**1**	**- -**	**- -**	**1**	**1**	**- -**
	$253,827	**- -**	**- -**	**- -**	**$285,000**	**- -**	**- -**	**$122,919**	**$353,562**	**- -**

Notes: Age and years of service were projected from November 30, 2019 to December 31, 2019.

Exhibit B: Members in Active Service as of December 31, 2019 by Age, Years of Service, and Average Projected Compensation (continued)

Safety Tier 2

		Years of Service								
Age	**Total**	**0 – 4**	**5 – 9**	**10 – 14**	**15 – 19**	**20 – 24**	**25 – 29**	**30 – 34**	**35 – 39**	**40 & over**
Under 25	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
25 – 29	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
30 – 34	19	- -	- -	19	- -	- -	- -	- -	- -	- -
	$132,836	- -	- -	$132,836	- -	- -	- -	- -	- -	- -
35 – 39	133	- -	4	116	12	1	- -	- -	- -	- -
	133,275	- -	$128,645	130,865	$153,434	$189,374	- -	- -	- -	- -
40 – 44	166	- -	2	91	57	16	- -	- -	- -	- -
	139,662	- -	107,939	133,223	142,671	169,528	- -	- -	- -	- -
45 – 49	259	- -	4	65	93	92	5	- -	- -	- -
	138,010	- -	127,732	128,743	134,468	146,459	$177,099	- -	- -	- -
50 – 54	157	- -	5	26	58	54	11	3	- -	- -
	134,278	- -	116,998	128,833	130,374	137,652	157,212	$140,948	- -	- -
55 – 59	70	- -	3	16	22	20	2	7	- -	- -
	133,009	- -	123,107	126,355	131,756	138,426	178,513	127,918	- -	- -
60 – 64	30	- -	3	9	6	6	2	2	2	- -
	130,757	- -	147,052	138,445	125,809	106,866	132,964	168,970	$117,816	- -
65 – 69	9	- -	- -	3	1	5	- -	- -	- -	- -
	131,220	- -	- -	167,102	155,209	104,893	- -	- -	- -	- -
70 & over	1	- -	- -	- -	- -	1	- -	- -	- -	- -
	254,687	- -	- -	- -	- -	254,687	- -	- -	- -	- -
Total	**844**	**- -**	**21**	**345**	**249**	**195**	**20**	**12**	**2**	**- -**
	$136,171	**- -**	**$125,564**	**$131,346**	**$135,941**	**$143,580**	**$161,889**	**$138,017**	**$117,816**	**- -**

Notes: Age and years of service were projected from November 30, 2019 to December 31, 2019.

Exhibit B: Members in Active Service as of December 31, 2019 by Age, Years of Service, and Average Projected Compensation (continued)

Safety Tier 2C

		Years of Service								
Age	**Total**	**0 – 4**	**5 – 9**	**10 – 14**	**15 – 19**	**20 – 24**	**25 – 29**	**30 – 34**	**35 – 39**	**40 & over**
Under 25	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
25 – 29	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
30 – 34	6	- -	5	1	- -	- -	- -	- -	- -	- -
	$126,164	- -	$128,505	$114,459	- -	- -	- -	- -	- -	- -
35 – 39	4	- -	3	1	- -	- -	- -	- -	- -	- -
	102,758	- -	109,243	83,305	- -	- -	- -	- -	- -	- -
40 – 44	6	- -	6	- -	- -	- -	- -	- -	- -	- -
	128,936	- -	128,936	- -	- -	- -	- -	- -	- -	- -
45 – 49	4	- -	2	1	- -	- -	1	- -	- -	- -
	109,889	- -	117,576	107,519	- -	- -	$96,887	- -	- -	- -
50 – 54	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
55 – 59	2	- -	2	- -	- -	- -	- -	- -	- -	- -
	159,810	- -	159,810	- -	- -	- -	- -	- -	- -	- -
60 – 64	3	1	2	- -	- -	- -	- -	- -	- -	- -
	138,157	$92,458	161,006	- -	- -	- -	- -	- -	- -	- -
65 – 69	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
70 & over	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total	**25**	**1**	**20**	**3**	**- -**	**- -**	**1**	**- -**	**- -**	**- -**
	$124,611	**$92,458**	**$131,033**	**$101,761**	**- -**	**- -**	**$96,887**	**- -**	**- -**	**- -**

Notes: Age and years of service were projected from November 30, 2019 to December 31, 2019.

Exhibit B: Members in Active Service as of December 31, 2019 by Age, Years of Service, and Average Projected Compensation (continued)

Safety Tier 2D

		Years of Service								
Age	**Total**	**0 – 4**	**5 – 9**	**10 – 14**	**15 – 19**	**20 – 24**	**25 – 29**	**30 – 34**	**35 – 39**	**40 & over**
Under 25	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
25 – 29	1	- -	1	- -	- -	- -	- -	- -	- -	- -
	$129,247	- -	$129,247	- -	- -	- -	- -	- -	- -	- -
30 – 34	33	- -	32	1	- -	- -	- -	- -	- -	- -
	126,705	- -	126,517	$132,729	- -	- -	- -	- -	- -	- -
35 – 39	31	3	14	13	1	- -	- -	- -	- -	- -
	118,732	$133,035	125,492	107,868	$122,409	- -	- -	- -	- -	- -
40 – 44	23	6	13	2	2	- -	- -	- -	- -	- -
	132,833	150,675	125,407	131,316	129,096	- -	- -	- -	- -	- -
45 – 49	20	2	9	3	6	- -	- -	- -	- -	- -
	123,365	149,249	134,533	116,801	101,266	- -	- -	- -	- -	- -
50 – 54	8	3	2	2	- -	- -	1	- -	- -	- -
	119,198	120,667	137,763	93,702	- -	- -	$128,651	- -	- -	- -
55 – 59	7	1	5	1	- -	- -	- -	- -	- -	- -
	131,894	153,096	136,031	90,007	- -	- -	- -	- -	- -	- -
60 – 64	2	- -	1	- -	1	- -	- -	- -	- -	- -
	137,830	- -	164,039	- -	111,621	- -	- -	- -	- -	- -
65 – 69	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
70 & over	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total	**125**	**15**	**77**	**22**	**10**	**- -**	**1**	**- -**	**- -**	**- -**
	$125,329	**$141,117**	**$128,513**	**$110,248**	**$109,982**	**- -**	**$128,651**	**- -**	**- -**	**- -**

Notes: Age and years of service were projected from November 30, 2019 to December 31, 2019.

Exhibit B: Members in Active Service as of December 31, 2019 by Age, Years of Service, and Average Projected Compensation (continued)

Safety Tier 4

		Years of Service								
Age	Total	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 – 39	40 & over
Under 25	13	13	- -	- -	- -	- -	- -	- -	- -	- -
	$93,606	$93,606	- -	- -	- -	- -	- -	- -	- -	- -
25 – 29	90	69	21	- -	- -	- -	- -	- -	- -	- -
	103,108	98,867	$117,042	- -	- -	- -	- -	- -	- -	- -
30 – 34	118	64	54	- -	- -	- -	- -	- -	- -	- -
	107,272	98,998	117,078	- -	- -	- -	- -	- -	- -	- -
35 – 39	70	38	32	- -	- -	- -	- -	- -	- -	- -
	112,852	105,683	121,365	- -	- -	- -	- -	- -	- -	- -
40 – 44	27	14	13	- -	- -	- -	- -	- -	- -	- -
	114,027	113,450	114,649	- -	- -	- -	- -	- -	- -	- -
45 – 49	13	8	5	- -	- -	- -	- -	- -	- -	- -
	119,725	116,978	124,122	- -	- -	- -	- -	- -	- -	- -
50 – 54	22	19	3	- -	- -	- -	- -	- -	- -	- -
	146,387	146,893	143,182	- -	- -	- -	- -	- -	- -	- -
55 – 59	22	9	13	- -	- -	- -	- -	- -	- -	- -
	138,692	141,052	137,058	- -	- -	- -	- -	- -	- -	- -
60 – 64	4	1	3	- -	- -	- -	- -	- -	- -	- -
	143,256	151,549	140,491	- -	- -	- -	- -	- -	- -	- -
65 – 69	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
70 & over	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total	**379**	**235**	**144**	**- -**	**- -**	**- -**	**- -**	**- -**	**- -**	**- -**
	$112,228	**$106,922**	**$120,886**	**- -**	**- -**	**- -**	**- -**	**- -**	**- -**	**- -**

Notes: Age and years of service were projected from November 30, 2019 to December 31, 2019.

Exhibit C: Reconciliation of Member Data

	Active Members	Inactive Vested Members[1]	Retired Members	Disabled Members	Beneficiaries	Total
Number as of December 31, 2018	**11,349**	**2,568**	**7,628**	**924**	**1,231**	**23,700**
• New members	911	0	0	0	69	980
• Terminations – with vested rights	(394)	394	0	0	0	0
• Contribution refunds	(134)	(103)	0	0	0	(237)
• Retirements	(380)	(102)	482	0	0	0
• New disabilities	(25)	(6)	(21)	52	0	0
• Return to work	26	(25)	(1)	0	0	0
• Died with or without beneficiary	(16)	(4)	(202)	(25)	(58)	(305)
• Data adjustments[2]	(1)	99	2	0	(3)	97
Number as of December 31, 2019	**11,336**	**2,821**	**7,888**	**951**	**1,239**	**24,235**

[1] Includes inactive members due a refund of member contributions.
[2] Out of the net 99 data adjustments for inactive vested members: 4 non-members from last year went to payment status this year; 66 members were hired and terminated employment after November 30, 2018 (i.e. the census data collection date for last year's valuation); 31 members were classified as contribution refunds in the December 31, 2018 valuation data and terminated vested in the December 31, 2019 data; 1 member was classified as retired in the December 31, 2018 valuation data and terminated vested in the December 31, 2019 data; and 1 member and 4 non-member records were added to the terminated vested file.

Exhibit D: Summary Statement of Income and Expenses on a Market Value Basis

	Year Ended December 31, 2019		Year Ended December 31, 2018	
Net assets at market value at the beginning of the year		**$7,592,586,569**		**$8,112,099,556**
Contribution income:				
• Employer contributions	$298,526,950		$269,684,809	
• Member contributions	103,117,022		94,735,673	
Net contribution income		*$401,643,972*		*$364,420,482*
Investment income:				
• Interest, dividends and other income	$101,531,349		$120,629,800	
• Asset appreciation	1,307,646,904		(417,757,336)	
• Less investment and administrative fees	(66,383,453)		(73,984,083)	
Net investment income		*$1,342,794,800*		*$(371,111,618)*
Total income available for benefits		**$1,744,438,772**		**($6,691,137)**
Less benefit payments:				
• Service retirement	$(489,452,611)		$(459,141,978)	
• Death payments	(2,825,577)		(2,957,440)	
• Supplemental cost of living	(1,181,244)		(1,134,613)	
• Member refunds	(10,724,708)		(8,709,150)	
• Health insurance subsidies	(43,562,150)		(40,878,670)	
Net benefit payments		*$(547,746,289)*		*$(512,821,851)*
Change in net assets at market value		**$1,196,692,483**		**$(519,512,988)**
Net assets at market value at the end of the year		**$8,789,279,051**		**$7,592,586,569**

Note: Results may be slightly off due to rounding.

Exhibit E: Summary Statement of Plan Assets

		December 31, 2019		December 31, 2018
Cash		*$4,151,369*		*$1,573,133*
Securities lending collateral		*121,705,062*		*183,002,987*
Accounts receivable:				
• Contributions	$18,310,516		$17,422,507	
• Investment receivables	17,044,483		15,986,252	
• Investments sold	3,361,020		1,202,614	
• Futures contracts	307,397		0	
• Foreign exchange contracts	5,129,347		100,999	
• Others	290,431		107,881	
Total accounts receivable		*$44,443,194*		*$34,820,254*
Prepaid expenses		*762,811*		*1,292,997*
Investments:				
• Short-term investments	$231,758,980		$159,672,681	
• Equities	4,852,057,801		4,147,368,158	
• Fixed income investments	1,241,764,327		1,203,445,404	
• Real estate	585,368,670		561,242,142	
• Capital assets	2,532,109		1,485,300	
• Private equity and alternative investments	1,854,346,819		1,512,465,825	
Total investments at market value		*$8,767,828,706*		*$7,585,679,510*
Total assets		$8,938,891,142		$7,806,368,882
Accounts payable:				
• Securities lending & investments purchased	$(128,455,437)		$(189,585,727)	
• Investment-related payables	(11,866,889)		(12,363,273)	
• Futures contracts & equity swaps	(2,631,699)		(1,392,567)	
• Foreign exchange contracts	(2,383)		(3,651,400)	
• Accrued administration expense	(2,357,945)		(2,275,696)	
• Members benefits & refunds, and retirement payroll deductions payable	(4,297,739)		(4,513,650)	
Total accounts payable		$(149,612,091)		$(213,782,313)
Net assets at market value		**$8,789,279,051**		**$7,592,586,569**
Net assets at actuarial value		**$8,528,590,602**		**$8,161,706,068**
Net assets at valuation value		**$7,599,976,117**		**$7,239,327,157**

Note: Results may be slightly off due to rounding.

Exhibit F: Summary of Reported Reserve Information as of December 31, 2019

	Reserves
Used in Development of Valuation Value of Assets:	
• Members deposit-basic	$1,292,363,820
• Members cost-of-living	288,958,431
• Employer advance (before transfer from SRBR to employer advance)	1,159,079,409
• Pension reserve-current	1,699,718,634
• Pension reserve-prior	5,444,221
• Annuity reserve	1,001,168,069
• Cost-of-living reserve	2,146,441,252
• Survivor death benefit	291,405
• SRBR transfer to employer advance[1]	6,510,876
• Reserve for interest fluctuations (contingency reserve), if negative	0
Subtotal	$7,599,976,117[2]
Not Used in Development of Valuation Value of Assets:	
• 401(h) account	$10,415,538
• Supplemental retirees benefit reserve (before transfer from SRBR to employer advance)	924,709,823
• Reserve for interest fluctuations (contingency reserve), if positive	0
• Market stabilization reserve	260,688,449
• SRBR transfer to employer advance[1]	(6,510,876)
Subtotal	$1,189,302,934
Total	**$8,789,279,051**

Note: Results may be slightly off due to rounding.

[1] Estimate provided by ACERA.
[2] A breakdown of this amount between the different cost groups is provided in Section 4, Exhibit VI.

Exhibit G: Development of the Fund through December 31, 2019

Year Ended December 31	Employer Contributions	Member Contributions	Net Investment Return[1]	Benefit Payments	Market Value of Assets at Year-End	Actuarial Value of Assets at Year-End	Actuarial Value as a Percent of Market Value
2010	$147,543,301	$77,604,809	$635,617,238	$313,150,062	$5,224,494,880	$5,487,858,259	105.0%
2011	162,879,221	77,990,907	(53,810,166)	337,156,660	5,074,398,182	5,556,242,772	109.5%
2012	179,648,812	78,608,004	698,682,556	363,133,358	5,668,204,196	5,543,303,209	97.8%
2013	191,180,146	76,230,024	1,095,188,216	390,507,104	6,640,295,478	5,953,454,661	89.7%
2014	213,254,775	79,714,187	266,028,241	411,279,675	6,788,013,006	6,545,159,225	96.4%
2015	224,607,104	82,948,934	(19,960,005)	434,984,266	6,640,624,773	6,987,026,015	105.2%
2016	241,728,451	85,736,229	454,641,033	457,150,304	6,965,580,182	7,309,485,170	104.9%
2017	247,063,550	89,325,824	1,293,322,206	483,192,206	8,112,099,556	7,803,026,229	96.2%
2018	269,684,809	94,735,673	(371,111,618)	512,821,851	7,592,586,569	8,161,706,068	107.5%
2019	298,526,950	103,117,022	1,342,794,800	547,746,289	8,789,279,051	8,528,590,602	97.0%

[1] On a market basis, net of investment fees and administrative expenses.

Exhibit H: Table of Amortization Bases

General (Excluding LARPD & Office of Education)

Type	Date Established	Initial Amount ($ in '000s)	Initial Period	Outstanding Balance ($ in '000s)	Years Remaining	Annual Payment[1] ($ in '000s)
Combined Bases	December 31, 2011	$885,036	21	$839,178	13	$82,276
Experience Loss	December 31, 2012	165,501	20	155,955	13	15,290
Experience Gain	December 31, 2013	(75,003)	20	(71,989)	14	(6,662)
Experience Gain	December 31, 2014	(156,281)	20	(152,018)	15	(13,346)
Change in Assumptions	December 31, 2014	350,827	20	341,261	15	29,960
Experience Gain	December 31, 2015	(98,619)	20	(97,008)	16	(8,114)
Experience Loss	December 31, 2016	3,655	20	3,622	17	290
Experience Gain	December 31, 2017	(27,249)	20	(27,115)	18	(2,082)
Change in Assumptions	December 31, 2017	260,437	20	259,151	18	19,895
Experience Gain[2]	December 31, 2018	(6,121)	20	(6,114)	19	(452)
Experience Loss	December 31, 2019	74,367	20	74,367	20	5,303
Subtotal				**$1,319,290**		**$122,358**

1 Level percentage of payroll.
2 Includes the impact of transferring the allocated UAAL for LARPD Tier 1 members to the LARPD cost group and the allocated UAAL for Office of Education Tier 1 members to the Office of Education cost group.

Exhibit H: Table of Amortization Bases (continued)

General (LARPD)[1]

Type	Date Established	Initial Amount ($ in '000s)	Initial Period	Outstanding Balance ($ in '000s)	Years Remaining	Annual Payment[2] ($ in '000s)
Combined Bases	December 31, 2011	$7,060	21	$6,694	13	$656
Experience Loss	December 31, 2012	370	20	348	13	34
Experience Gain	December 31, 2013	(534)	20	(512)	14	(47)
Experience Gain	December 31, 2014	(1,562)	20	(1,520)	15	(133)
Change in Assumptions	December 31, 2014	1,303	20	1,268	15	111
Experience Gain[3]	December 31, 2015	(1,506)	20	(1,483)	16	(124)
Experience Loss	December 31, 2016	139	20	138	17	11
Experience Gain[4]	December 31, 2017	(622)	20	(620)	18	(48)
Change in Assumptions	December 31, 2017	1,418	20	1,411	18	108
Experience Loss[5]	December 31, 2018	1,058	20	1,057	19	78
UAAL for Tier 1 members[6]	December 31, 2018	6,576	20	6,569	19	486
Experience Loss[7]	December 31, 2019	980	20	980	20	70
Subtotal				**$14,330**		**$1,202**

[1] When LARPD General Tier 3 was established in 2008, they were classified as a stand-alone group since they were the only employer with the higher 2.5% at 55 benefit (i.e., Section 31676.18), and the cost to upgrade the past service under that formula was only to be paid by LARPD. (reference: Segal's letter dated October 7, 2008). The initial UAAL rate for that group was based on an allocation of assets needed to maintain the total employer rate from the December 31, 2007 valuation before any benefit improvements for General Tier 3. The UAAL rate for LARPD General Tier 3 was then increased to reflect the benefit improvement. When LARPD General Tier 4 was later established in 2013, that tier was combined with LARPD General Tier 3 for purpose of determining their UAAL rate only (as normal cost for LARPD General Tier 4 has continued to be developed on a pooled basis with other General employers offering General Tier 4 benefits), in order to continue with the open-group level percentage of payroll approach for paying off the UAAL amount for General Tier 3 (that is now closed to new entrants because of CalPEPRA). Furthermore, the Board adopted the declining employer payroll policy in 2018 and determined that the policy applies to LARPD Tier 1. As a result, the UAAL (and associated assets) of LARPD Tier 1 was combined with the UAAL for LARPD Tiers 3 and 4.

[2] Level percentage of payroll.

[3] There is a liability gain from the death of one of LARPD's Tier 3 retirees and the withdrawal of one of LARPD's Tier 3 actives.

[4] There is a liability gain from the death of one of LARPD's Tier 3 retirees.

[5] There is a liability loss mainly from retiree mortality experience for LARPD's Tier 1 and Tier 3 retirees as a result of no actual deaths.

[6] The allocated UAAL for LARPD Tier 1 of $6,167,000 determined as of December 31, 2017 is rolled forward to December 31, 2018 to be amortized starting with the December 31, 2018 valuation.

[7] The loss is primarily due to (a) lower than expected return on investments (after smoothing), (b) actual contributions lower than expected, and (c) higher than expected salary increases for active members.

Exhibit H: Table of Amortization Bases (continued)

General Combined (Excluding Office of Education)

Type	Date Established	Initial Amount ($ in '000s)	Initial Period	Outstanding Balance ($ in '000s)	Years Remaining	Annual Payment[1] ($ in '000s)
Combined Bases	December 31, 2011	$892,096	21	$845,872	13	$82,932
Experience Loss	December 31, 2012	165,871	20	156,303	13	15,324
Experience Gain	December 31, 2013	(75,537)	20	(72,501)	14	(6,709)
Experience Gain	December 31, 2014	(157,843)	20	(153,538)	15	(13,479)
Change in Assumptions	December 31, 2014	352,130	20	342,529	15	30,071
Experience Gain	December 31, 2015	(100,125)	20	(98,491)	16	(8,238)
Experience Loss	December 31, 2016	3,794	20	3,760	17	301
Experience Gain	December 31, 2017	(27,871)	20	(27,735)	18	(2,130)
Change in Assumptions	December 31, 2017	261,855	20	260,562	18	20,003
Experience Loss	December 31, 2018	1,513	20	1,512	19	112
Experience Loss	December 31, 2019	75,347	20	75,347	20	5,373
Subtotal				**$1,333,620**		**$123,560**

[1] Level percentage of payroll.

Exhibit H: Table of Amortization Bases (continued)

Safety

Type	Date Established	Initial Amount ($ in '000s)	Initial Period	Outstanding Balance ($ in '000s)	Years Remaining	Annual Payment[1] ($ in '000s)
Combined Bases	December 31, 2011	$598,698	21	$567,679	13	$55,657
Experience Loss	December 31, 2012	63,130	20	59,490	13	5,833
Experience Gain	December 31, 2013	(9,350)	20	(8,976)	14	(831)
Experience Gain	December 31, 2014	(43,238)	20	(42,059)	15	(3,692)
Change in Assumptions	December 31, 2014	107,552	20	104,619	15	9,185
Experience Gain	December 31, 2015	(12,850)	20	(12,641)	16	(1,057)
Experience Loss	December 31, 2016	19,183	20	19,012	17	1,521
Experience Loss	December 31, 2017	6,354	20	6,323	18	485
Change in Assumptions	December 31, 2017	134,184	20	133,521	18	10,251
Experience Loss	December 31, 2018	9,377	20	9,366	19	692
Experience Loss	December 31, 2019	24,143	20	24,143	20	1,722
Subtotal				**$860,477**		**$79,766**

[1] Level percentage of payroll.

Exhibit H: Table of Amortization Bases (continued)

Total (Excluding Office of Education)

Type	Date Established	Initial Amount ($ in '000s)	Initial Period	Outstanding Balance ($ in '000s)	Years Remaining	Annual Payment[1] ($ in '000s)
Combined Bases	December 31, 2011	$1,490,794	21	$1,413,551	13	$138,589
Experience Loss	December 31, 2012	229,001	20	215,793	13	21,157
Experience Gain	December 31, 2013	(84,887)	20	(81,477)	14	(7,540)
Experience Gain	December 31, 2014	(201,081)	20	(195,597)	15	(17,171)
Change in Assumptions	December 31, 2014	459,682	20	447,148	15	39,256
Experience Gain	December 31, 2015	(112,975)	20	(111,132)	16	(9,295)
Experience Loss	December 31, 2016	22,977	20	22,772	17	1,822
Experience Gain	December 31, 2017	(21,517)	20	(21,412)	18	(1,645)
Change in Assumptions	December 31, 2017	396,039	20	394,083	18	30,254
Experience Loss	December 31, 2018	10,890	20	10,878	19	804
Experience Loss	December 31, 2019	99,490	20	99,490	20	7,095
Total				**$2,194,097**		**$203,326**

[1] Level percentage of payroll.

Exhibit H: Table of Amortization Bases (continued)

General (Office of Education)

Type	Date Established	Initial Amount ($ in '000s)	Initial Period	Outstanding Balance ($ in '000s)	Years Remaining	Annual Payment[1] ($ in '000s)
UAAL for Tier 1 Members	December 31, 2017	$1,357	20	$699	18	$72
Experience Loss	December 31, 2018	61	20	59	19	6
Experience Loss	December 31, 2019	110	20	110	20	11
Subtotal				**$868**		**$89**
Credit for Expected UAAL Contribution				77[2]		
Total				**$945**		

Note: The equivalent amortization period for the entire Plan is about 14 years.

[1] Level dollar, and reflects timing of payment (i.e., next scheduled on April 1, 2021).
[2] $78,000 (as determined in the December 31, 2018 valuation to be payable April 1, 2020), discounted at 7.25% to December 31, 2019.

Exhibit I: Projection of UAAL Balances and Payments

Outstanding Balance of $2,195 Million in Net UAAL as of December 31, 2019

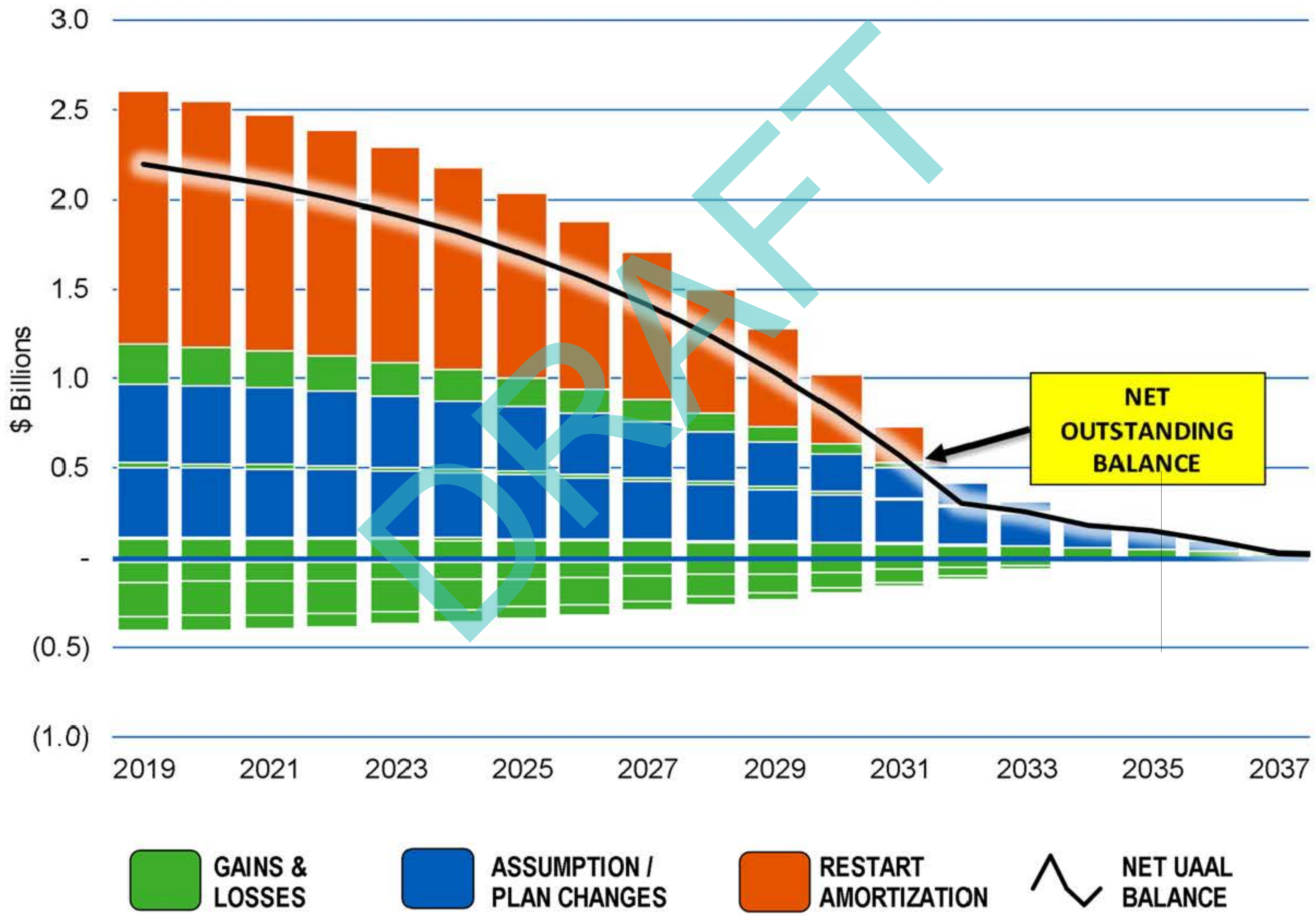


Exhibit I: Projection of UAAL Balances and Payments

Annual Payments Required to Amortize $2,195 Million in Net UAAL as of December 31, 2019

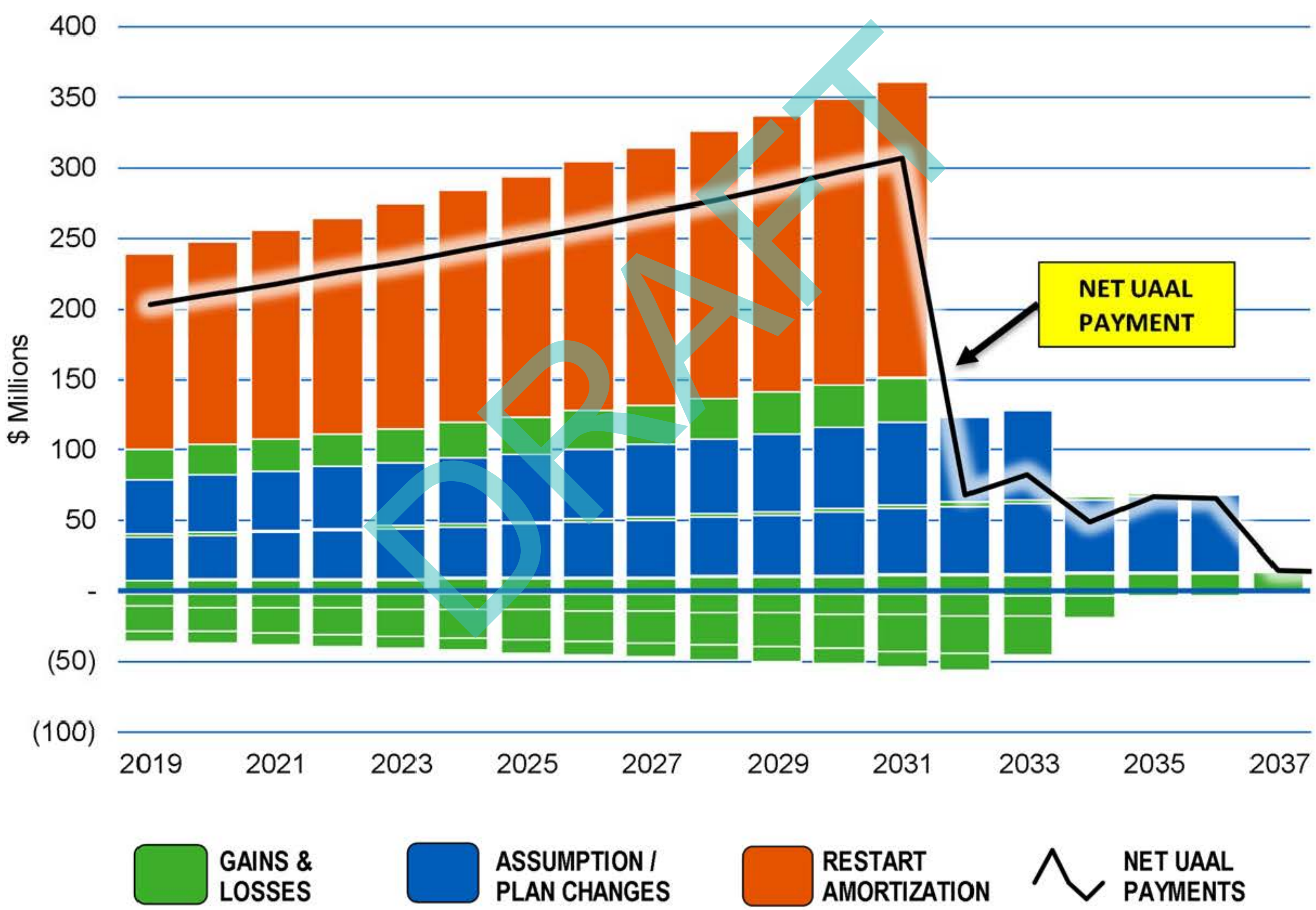


Exhibit J: Definition of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Actuarial Accrued Liability for Actives:	The equivalent of the accumulated normal costs allocated to the years before the valuation date.
Actuarial Accrued Liability for Pensioners and Beneficiaries:	The single-sum value of lifetime benefits to existing pensioners and beneficiaries. This sum takes account of life expectancies appropriate to the ages of the annuitants and the interest that the sum is expected to earn before it is entirely paid out in benefits.
Actuarial Cost Method:	A procedure allocating the Actuarial Present Value of Future Benefits to various time periods; a method used to determine the Normal Cost and the Actuarial Accrued Liability that are used to determine the actuarially determined contribution.
Actuarial Gain or Loss:	A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two Actuarial Valuation dates. Through the actuarial assumptions, rates of decrements, rates of salary increases, and rates of fund earnings have been forecasted. To the extent that actual experience differs from that assumed, Actuarial Accrued Liabilities emerge which may be the same as forecasted, or may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., assets earn more than projected, salary increases are less than assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results yield in actuarial liabilities that are larger than projected. Actuarial gains will shorten the time required for funding of the actuarial balance sheet deficiency while actuarial losses will lengthen the funding period.
Actuarially Equivalent:	Of equal actuarial present value, determined as of a given date and based on a given set of Actuarial Assumptions.
Actuarial Present Value (APV):	The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. Each such amount or series of amounts is: Adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.) Multiplied by the probability of the occurrence of an event (such as survival, death, disability, withdrawal, etc.) on which the payment is conditioned, and Discounted according to an assumed rate (or rates) of return to reflect the time value of money.
Actuarial Present Value of Future Plan Benefits:	The Actuarial Present Value of benefit amounts expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age, anticipated future compensation, and future service credits. The Actuarial Present Value of Future Plan Benefits includes the liabilities for active members, retired members,

	beneficiaries receiving benefits, and inactive members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
Actuarial Valuation:	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB, such as the Actuarially Determined Contribution (ADC) and the Net Pension Liability (NPL).
Actuarial Value of Assets (AVA):	The value of the Fund's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly plans use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the ADC.
Actuarially Determined:	Values that have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the law.
Actuarially Determined Contribution (ADC):	The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under the Plan's funding policy. The ADC consists of the Employer Normal Cost and the Amortization Payment.
Amortization Method:	A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the assumed rate at which total covered payroll of all active members will increase.
Amortization Payment:	The portion of the pension plan contribution, or ADC, that is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.
Assumptions or Actuarial Assumptions:	The estimates upon which the cost of the Fund is calculated, including: Investment return - the rate of investment yield that the Fund will earn over the long-term future; Mortality rates - the death rates of employees and pensioners; life expectancy is based on these rates; Retirement rates - the rate or probability of retirement at a given age or service; Disability rates – the probability of disability retirement at a given age; Withdrawal rates - the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement; Salary increase rates - the rates of salary increase due to inflation and productivity growth.

Closed Amortization Period:	A specific number of years that is counted down by one each year, and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc. See Open Amortization Period.
Decrements:	Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or withdrawal.
Defined Benefit Plan:	A retirement plan in which benefits are defined by a formula applied to the member's compensation and/or years of service.
Defined Contribution Plan:	A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, the plan's earnings are allocated to each account, and each member's benefits are a direct function of the account balance.
Employer Normal Cost:	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
Experience Study:	A periodic review and analysis of the actual experience of the Fund that may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified as deemed appropriate by the Actuary.
Funded Ratio:	The ratio of the valuation value of assets (VVA) to the actuarial accrued liability (AAL). Plans sometimes calculate a market funded ratio, using the market value of assets (MVA), rather than the VVA.
Investment Return:	The rate of earnings of the Fund from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.
Normal Cost:	That portion of the Actuarial Present Value of pension plan benefits and expenses allocated to a valuation year by the Actuarial Cost Method. Any payment in respect of an Unfunded Actuarial Accrued Liability is not part of Normal Cost (see Amortization Payment). For pension plan benefits that are provided in part by employee contributions, Normal Cost refers to the total of employee contributions and employer Normal Cost unless otherwise specifically stated.
Open Amortization Period:	An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. If the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period with level percentage of payroll is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never decrease, but will become smaller each year, in relation to covered payroll, if the actuarial assumptions are realized.
Unfunded Actuarial Accrued Liability:	The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. This value may be negative, in which case it may be expressed as a negative Unfunded Actuarial Accrued Liability, also called the Funding Surplus.

Valuation Date or Actuarial Valuation Date:	The date as of which the value of assets is determined and as of which the Actuarial Present Value of Future Plan Benefits is determined. The expected benefits to be paid in the future are discounted to this date.
Valuation Value of Assets:	The Actuarial Value of Assets reduced by the value of non-valuation reserves.

Section 4: Actuarial Valuation Basis

Exhibit I: Actuarial Assumptions and Methods

Rationale for Assumptions:	The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the December 1, 2013 through November 30, 2016 Actuarial Experience Study report dated September 6, 2017. Unless otherwise noted, all actuarial assumptions and methods shown below apply to all tiers. These assumptions were adopted by the Board.
<u>Economic Assumptions</u>	
Net Investment Return:	7.25%; net of administrative and investment expenses. Based on the Actuarial Experience Study referenced above, expected administrative and investment expenses represent about 0.90% of the Market Value of Assets.
Employee Contribution Crediting Rate:	7.25%, compounded semi-annually.
Consumer Price Index:	Increase of 3.00% per year. Retiree COLA increases due to CPI are subject to a 3% maximum change per year for General Tier 1, General Tier 3, and Safety Tier 1, and 2% maximum change per year for General Tier 2, General Tier 4, Safety Tier 2, Safety Tier 2C, Safety Tier 2D, and Safety Tier 4.
Payroll Growth:	Inflation of 3.00% per year plus real "across the board" salary increases of 0.50% per year, used to amortize the Unfunded Actuarial Accrued Liability as a level percentage of payroll.
Increase in Internal Revenue Code Section 401(a)(17) Compensation Limit:	Increase of 3.00% per year from the valuation date.
Increase in Section 7522.10 Compensation Limit:	Increase of 3.00% per year from the valuation date.

Salary Increases:

The annual rate of compensation increase includes:

- Inflation at 3.00%, plus
- "Across the board" salary increases of 0.50% per year, plus
- The following merit and promotion increases:

Years of Service	Rate (%) General	Rate (%) Safety
0-1	4.80	7.80
1-2	4.80	7.80
2-3	3.90	7.00
3-4	2.40	4.40
4-5	1.90	3.50
5-6	1.60	2.30
6-7	1.50	1.60
7-8	1.10	1.00
8-9	0.80	1.00
9-10	0.80	0.90
10-11	0.50	0.80
11 & Over	0.40	0.80

Terminal Pay Assumptions:

Additional pay elements are expected to be received during a member's final average earnings period. The percentages, added to the final average salary, used in this valuation are:

	Service Retirement	Disability Retirement
General Tier 1	8.0%	6.5%
General Tier 2	3.0%	1.4%
General Tier 3	8.0%	6.5%
General Tier 4	N/A	N/A
Safety Tier 1	8.5%	6.4%
Safety Tier 2	3.5%	2.1%
Safety Tier 2C	3.5%	2.1%
Safety Tier 2D	3.5%	2.1%
Safety Tier 4	N/A	N/A

Demographic Assumptions:

Post-Retirement Mortality Rates:

Healthy

- **General Members and All Beneficiaries:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, with no setback for males and females, projected generationally with the two-dimensional MP-2016 projection scale.
- **Safety Members:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, with no setback for males and females, projected generationally with the two-dimensional MP-2016 projection scale.

Disabled

- **General Members:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, set forward seven years for males and set forward four years for females, projected generationally with the two-dimensional MP-2016 projection scale.
- **Safety Members:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, set forward two years for males and with no set forward for females, projected generationally with the two-dimensional MP-2016 projection scale.

The RPH-2014 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 and Safety Members:** Headcount-Weighted RP-2014 (RPH-2014) Employee Mortality Tables multiplied by 80%, projected generationally with the two-dimensional MP-2016 projection scale.

	Rate (%)			
	General[1]		Safety[1]	
Age	Male	Female	Male	Female
20	0.05	0.02	0.05	0.02
25	0.05	0.02	0.05	0.02
30	0.05	0.02	0.05	0.02
35	0.05	0.03	0.05	0.03
40	0.06	0.04	0.06	0.04
45	0.10	0.07	0.10	0.07
50	0.17	0.11	0.17	0.11
55	0.27	0.17	0.27	0.17
60	0.45	0.24	0.45	0.24
65	0.78	0.36	0.78	0.36

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

[1] Generational projections beyond the base year (2014) are not reflected in the above mortality rates.

Mortality Rates for Member Contributions:	• **General Members:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, with no setback for males and females, projected 20 years with the two-dimensional mortality improvement Scale MP-2016, weighted 30% male and 70% female. • **Safety Members:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, with no setback for males and females, projected 20 years with the two-dimensional mortality improvement Scale MP-2016, weighted 75% male and 25% female.
Optional Forms of Benefit:	*Service Retirement and All Beneficiaries* • **General Members:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, with no setback for males and females, projected 20 years with the two-dimensional mortality improvement Scale MP-2016, weighted 30% male and 70% female. • **General Beneficiaries:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, with no setback for males and females, projected 20 years with the two-dimensional mortality improvement Scale MP-2016, weighted 70% male and 30% female. • **Safety Members:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, with no setback for males and females, projected 20 years with the two-dimensional mortality improvement Scale MP-2016, weighted 75% male and 25% female. • **Safety Beneficiaries:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, with no setback for males and females, projected 20 years with the two-dimensional mortality improvement Scale MP-2016, weighted 25% male and 75% female. *Disability Retirement* • **General Members:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, set forward seven years for males and set forward four years for females, projected 20 years with the two-dimensional mortality improvement Scale MP-2016, weighted 30% male and 70% female. • **Safety Members:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, set forward two years for males and with no set forward for females, projected 20 years with the two-dimensional mortality improvement Scale MP-2016, weighted 75% male and 25% female.

Disability Incidence:

	Rate (%)	
Age	**General**	**Safety**
20	0.00	0.00
25	0.01	0.03
30	0.03	0.26
35	0.05	0.58
40	0.08	0.73
45	0.19	0.78
50	0.31	1.52
55	0.38	2.00
60	0.43	2.60

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

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

Termination:

Less Than Five Years of Service

Years of Service	Rate (%) General	Rate (%) Safety
0-1	11.00	4.00
1-2	9.00	3.50
2-3	8.00	3.50
3-4	6.00	2.50
4-5	6.00	2.00

60% of all terminated members with less than 5 years of service are assumed to choose a refund of contributions. The other 40% are assumed to choose a deferred vested benefit.

Five or More Years of Service

Age	Rate (%) General	Rate (%) Safety
20	6.00	2.00
25	6.00	2.00
30	5.40	2.00
35	4.40	1.70
40	3.40	1.20
45	3.00	1.00
50	3.00	1.00
55	3.00	1.00
60	3.00	0.40

35% of all terminated members with 5 or more years of service are assumed to choose a refund of contributions. The other 65% are assumed to choose a deferred vested benefit.

No termination is assumed after a member is eligible for retirement (as long as a retirement rate is present).

Retirement Rates:

	Rate (%)[1]							
	General				Safety			
Age	**Tier 1**	**Tier 2**	**Tier 3**	**Tier 4**	**Tier 1[2]**	**Tier 2, 2D[2]**	**Tier 2C[2]**	**Tier 4**
49	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00
50	4.00	2.00	6.00	0.00	35.00	15.00	4.00	4.00
51	4.00	2.00	3.00	0.00	30.00	15.00	2.00	2.00
52	4.00	2.00	5.00	4.00	25.00	15.00	2.00	2.00
53	4.00	2.00	6.00	1.50	35.00	15.00	3.00	3.00
54	4.00	2.00	6.00	1.50	45.00	15.00	6.00	6.00
55	6.00	2.00	12.00	2.00	45.00	15.00	10.00	10.00
56	8.00	3.00	13.00	2.50	45.00	15.00	12.00	12.00
57	10.00	4.00	13.00	3.50	45.00	15.00	20.00	20.00
58	12.00	4.00	14.00	3.50	45.00	20.00	10.00	10.00
59	14.00	5.00	16.00	4.50	45.00	20.00	15.00	15.00
60	20.00	7.00	21.00	6.00	45.00	30.00	60.00	60.00
61	20.00	9.00	20.00	8.00	45.00	30.00	60.00	60.00
62	35.00	15.00	30.00	18.00	45.00	30.00	60.00	60.00
63	30.00	16.00	25.00	15.00	45.00	30.00	60.00	60.00
64	30.00	18.00	25.00	17.00	45.00	50.00	60.00	60.00
65	35.00	25.00	30.00	22.00	100.00	100.00	100.00	100.00
66	35.00	25.00	25.00	25.00	100.00	100.00	100.00	100.00
67	30.00	25.00	25.00	25.00	100.00	100.00	100.00	100.00
68	30.00	30.00	25.00	30.00	100.00	100.00	100.00	100.00
69	35.00	35.00	50.00	35.00	100.00	100.00	100.00	100.00
70	65.00	50.00	65.00	50.00	100.00	100.00	100.00	100.00
71	65.00	50.00	65.00	50.00	100.00	100.00	100.00	100.00
72	65.00	50.00	65.00	50.00	100.00	100.00	100.00	100.00
73	65.00	50.00	65.00	50.00	100.00	100.00	100.00	100.00
74	65.00	50.00	65.00	50.00	100.00	100.00	100.00	100.00
75	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

[1] The retirement rates only apply to members that are eligible to retire at the age shown.

[2] Retirement rate is 100% after a member accrues a benefit of 100% of final average earnings.

Retirement Age and Benefit for Deferred Vested Members:

General Retirement Age: 61

Safety Retirement Age: 56

Future deferred vested members who terminate with less than five years of service and are not vested are assumed to retire at age 70 for both General and Safety if they decide to leave their contributions on deposit.

	30% of future General and 60% of future Safety deferred vested members are assumed to continue to work for a reciprocal employer. For reciprocals, 3.90% and 4.30% compensation increases are assumed per annum for General and Safety, respectively.
Future Benefit Accruals:	1.0 year of service per year of employment, plus 0.003 years of additional service for General members and 0.006 years of additional service for Safety members, to anticipate conversion of unused sick leave for each year of employment.
Unknown Data for Members:	Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.
Inclusion of Deferred Vested Members:	All deferred vested members are included in the valuation.
Data Adjustment:	Data as of November 30 has been adjusted to December 31 by adding one month of age and, for active members, one month of service.
Form of Payment:	All active and inactive vested members are assumed to elect the unmodified option at retirement.
Percent Married:	70% of male members; 50% of female members.
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.
Actuarial Funding Policy	
Actuarial Cost Method:	Entry Age Actuarial Cost Method. Entry Age is the age on the valuation date minus years of service. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are based on costs allocated as a level percentage of compensation, as if the current benefit formula for each individual has always been in effect.
Actuarial Value of Assets:	Market value of assets (MVA) less unrecognized returns in each of the last ten six-month interest crediting periods. Unrecognized returns are equal to the difference between the actual market return and the expected return on the market value, and are recognized semi-annually over a five-year period. The actuarial value of assets (AVA) is limited by a 40% corridor; the AVA cannot be less than 60% of MVA, nor greater than 140% of MVA.
Valuation Value of Assets:	The Actuarial Value of Assets reduced by the value of the non-valuation reserves.
Amortization Policy:	Prior to January 1, 2012, the total UAAL was amortized on a 30-year decreasing period, with 21 years remaining as of December 31, 2011 (and 13 years remaining as of December 31, 2019). On or after January 1, 2012, any new UAAL resulting from plan amendments are amortized over separate decreasing 15-year periods; early retirement incentive programs (ERIPs) are amortized over separate

	decreasing 5-year periods; assumption and method changes are amortized over separate decreasing 20-year periods; and experience gains/losses are also amortized over separate decreasing 20-year periods. ACOE's UAAL amortization under the declining employer payroll policy is level dollar.
Other Actuarial Methods	
Employer Contributions:	Employer contributions consist of two components: *Normal Cost* The annual contribution rate that, if paid annually from a member's first year of membership through the year of retirement, would accumulate to the amount necessary to fully fund the member's retirement-related benefits. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution rate is expressed as a level percentage of the member's compensation. *Contribution to the Unfunded Actuarial Accrued Liability (UAAL)* The annual contribution rate that, if paid annually over the UAAL amortization period, would accumulate to the amount necessary to fully fund the UAAL. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution (or rate credit in the case of a negative UAAL) is calculated to remain as a level percentage of future active member payroll (including payroll for new members as they enter the Association) assuming a constant number of active members. In order to remain as a level percentage of payroll, amortization payments (credits) are scheduled to increase at the annual rate of 3.50% (i.e., 3.00% inflation plus 0.50% across-the-board salary increase). The amortization policy is described on the previous page. Alameda County previously issued pension obligation bonds (POB) and the net bond proceeds were contributed to ACERA. When the POBs were issued, AHS, Court and First 5 were part of the County and, consequently, they share in the proceeds. The net bond proceeds contributed to ACERA allow the Association to provide a "Pension Obligation Bond Credit" to these employers, thereby reducing their employer contribution rate. As of December 31, 2019, the outstanding balances of the POBs were $500.6 million for the General employers (County, AHS, Court, and First 5) and $93.8 million for the Safety employers (County). For several years, the Board of Retirement has approved transfers from the SRBR to the Employer Advance Reserve to reimburse the County for their payment of the implicit retiree health benefit subsidy. The amortization credits resulting from these transfers have served to reduce the County's employer contribution rates. The recommended employer contributions are provided in *Section 2, Subsection F*. These rates reflect the POB credits for the County, AHS, Court, and First 5, and the retiree health benefit subsidy credits for the County, noted above.

Member Contributions:

Non-Tier 4 Members

Articles 6 and 6.8 of the 1937 Act define the methodology to be used in the calculation of member basic contribution rates for non-Tier 4 General and Safety members, respectively. The basic contribution rate is determined so that the accumulation of a member's basic contributions made in a given year until a certain age will be sufficient to fund an annuity at that age that is equal to 1/100 of Final Average Salary for General Tier 1, General Tier 3, and all Safety non-Tier 4 members and 1/120 of Final Average Salary for General Tier 2 members. That age is 60 for General Tier 1 and Tier 2, 55 for General Tier 3, and 50 for all Safety non-Tier 4 members. It is assumed that contributions are made annually at the same rate, starting at entry age. In addition to the basic contributions, members pay one-half of the total normal cost necessary to fund cost-of-living benefits. As instructed by ACERA, we have also included a 3% cost-sharing contribution that we understand will be paid by Safety Tier 1 and Tier 2 members. For Safety Tier 2C members, there are no cost-sharing contributions. For Safety Tier 2D members, the cost-sharing contribution rate is 5% of salary for the first 5 years of vesting service and 3% of salary for each subsequent year of vesting service. (The 3% cost-sharing contribution for Safety Tiers 1, 2, and 2D (after 5 years of service) will continue even after the member attains 30 years of service.)

Accumulation includes semi-annual crediting of interest at the assumed investment earnings rate. Following the procedure established by the Board, basic member rates have been adjusted to anticipate conversion of terminal pay at retirement.

Tier 4 Members

Pursuant to Section 7522.30(a) of the Government Code, Tier 4 members are required to contribute at least 50% of the Normal Cost rate.

When previously calculating member rates, there were certain additional requirements that had to be met such as requiring the employee rates be rounded to the nearest one quarter of one percent and requiring the new employees to pay the contribution rate of "similarly situated employees", if it is greater. (reference: Section 7522.30(c)). Furthermore, Section 7522.30(d) indicated that "once established, the employee contribution rate described in subdivision (c) shall not be adjusted on account of a change to the normal cost rate unless the normal cost rate increases or decreases by more than 1 percent of payroll above or below the normal cost rate in effect at the time the employee contribution rate is first established or, if later, the normal cost rate in effect at the time of the last adjustment to the employee contribution rate under this section."

However, as we referenced in our letter dated February 26, 2014, Assembly Bill 1380 (AB 1380) was approved by the Governor on September 6, 2013. In particular, Section 31620.5(a) was added to the Government Code to provide the Board with the discretion to not apply the rounding previously required under Section 7522.30(c). We understand that our recommendation in that letter to no longer apply the rounding rule effective with the December 31, 2013 valuation was adopted by the Board, and the results in this valuation reflect that action taken by the Board.

Section 31620.5(b) of AB 1380 also stipulates that the "one percent rule" under Section 7522.30(d) "shall not apply to the contribution rates of members of retirement systems established pursuant to this chapter."

Therefore, in preparing the Normal Cost rates in this report, we have assumed that exactly 50% of the Normal Cost would be paid by the Tier 4 members.

	The member contribution rates for all members are provided in *Section 4, Exhibit III*.
Internal Revenue Code Section 415:	Section 415 of the Internal Revenue Code (IRC) specifies the maximum benefits that may be paid to an individual from a defined benefit plan and the maximum amounts that may be allocated each year to an individual's account in a defined contribution plan. A qualified pension plan may not pay benefits in excess of the Section 415 limits. The ultimate penalty for non-compliance is disqualification: active participants could be taxed on their vested benefits and the IRS may seek to tax the income earned on the plan's assets. In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar limit of $160,000 indexed for inflation. That limit is $225,000 for 2019 and $230,000 for 2020. Normal Retirement Age for these purposes is age 62. These are the limits in simplified terms. They must be adjusted based on each participant's circumstances, for such things as age at retirement, form of benefits chosen and after tax contributions. Non-Tier 4 benefits in excess of the limits may be paid through a qualified governmental excess plan that meets the requirements of Section 415(m). Legal Counsel's review and interpretation of the law and regulations should be sought on any questions in this regard. Non-Tier 4 contribution rates determined in this valuation have not been reduced for the Section 415 limitations. Actual limitations will result in gains as they occur.
Justification for Change in Actuarial Assumptions:	There have been no changes in actuarial assumptions since the last valuation.

Exhibit II: Summary of Plan Provisions

This exhibit summarizes the major provisions of the Plan included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Plan Year:	January 1 through December 31
Membership Eligibility:	Membership with ACERA usually begins with the second pay period following appointment to a full time County or member District position. For Housing Authority and LARPD, membership with ACERA begins on the first day of hire. ACERA members who change from full time to part time will continue to participate at ACERA.
General and Safety Tier 1	All General and Safety members hired on or before June 30, 1983. For Housing Authority General members, the hire date is on or before September 30, 2011 (instead of June 30, 1983). For LARPD General members, the hire date is on or before September 30, 2008 (instead of June 30, 1983).
General and Safety Tier 2	All General and Safety members hired after June 30, 1983, and not in any of the other Tiers listed below. For Housing Authority General members, the hire date is after September 30, 2011 (instead of June 30, 1983).
General Tier 3	Only General LARPD members hired before October 1, 2008 who elected the 2.5% at 55 formula and all General LARPD members hired after that date.
General and Safety Tier 4	All General and Safety members with membership dates on or after January 1, 2013.
Safety Tier 2C	All Safety members in the Sheriff's Department (excluding Probation Officers) hired on or after October 17, 2010 who elected the 2% at 50 formula.
Safety Tier 2D	All Safety members in the Sheriff's Department (excluding Probation Officers) hired on or after October 17, 2010 who elected the 3% at 55 formula.
Final Compensation for Benefit Determination:	
General Tier 1, General Tier 3 and Safety Tier 1	Highest consecutive 12 months of compensation earnable (§31462.1) (FAS1).
General Tier 2, General Tier 4, Safety Tier 2, Safety Tier 2C, Safety Tier 2D, and Safety Tier 4	For non-Tier 4 members, highest consecutive 36 months of compensation earnable (§31462), and for Tier 4 members, highest consecutive 36 months of pensionable compensation (§7522.10(c), §7522.32 and §7522.34) (FAS3).
Compensation Limit:	
Non-Tier 4	For members with membership dates on or after July 1, 1996, compensation earnable is limited by Internal Revenue Code Section 401(a)(17). The limit for 2020 is $285,000. The limit is indexed for inflation on an annual basis.

Tier 4	Pensionable compensation is limited to $126,291 for 2020 for an employer that is enrolled in Social Security. For an employer that is not enrolled in Social Security, the maximum amount for 2020 is 120% of $126,291, or $151,549. (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2020. (reference: Section 7522.10(d)).
Service:	Years of service (Yrs) are generally based on a member's employment during a period of time for which deductions are made from their compensation.
Service Retirement Eligibility:	
General	
Non-Tier 4	Age 50 with 5 years of service and a total of 10 years of qualifying membership, or age 70 regardless of service, or after 30 years of service regardless of age (§31672).
Tier 4	Age 52 with 5 years of service (§7522.20(a)) or age 70 regardless of service (§31672.3).
Safety	
Non-Tier 4	Age 50 with 5 years of service and a total of 10 years of qualifying membership, or age 70 regardless of service, or after 20 years of service regardless of age (§31663.25).
Tier 4	Age 50 with 5 years of service (§7522.25(d)) or age 70 regardless of service (§31672.3).

Benefit Formula:		
General Tier 1 (§31676.12)	**Retirement Age**	**Benefit Formula**
	50	1.34% x (FAS1 – $1,400) x Yrs
	55	1.77% x (FAS1 – $1,400) x Yrs
	60	2.34% x (FAS1 – $1,400) x Yrs
	62 and over	2.62% x (FAS1 – $1,400) x Yrs
General Tier 2 (§31676.1)	**Retirement Age**	**Benefit Formula**
	50	1.18% x (FAS3 – $1,400) x Yrs
	55	1.49% x (FAS3 – $1,400) x Yrs
	60	1.92% x (FAS3 – $1,400) x Yrs
	62	2.09% x (FAS3 – $1,400) x Yrs
	65 and over	2.43% x (FAS3 – $1,400) x Yrs
General Tier 3 (§31676.18)	**Retirement Age**	**Benefit Formula**
	50	2.00% x FAS1 x Yrs
	55 and over	2.50% x FAS1 x Yrs
General Tier 4 (§7522.20(a))	**Retirement Age**	**Benefit Formula**
	52	1.00% x FAS3 x Yrs
	55	1.30% x FAS3 x Yrs
	60	1.80% x FAS3 x Yrs
	62	2.00% x FAS3 x Yrs
	65	2.30% x FAS3 x Yrs
	67 and over	2.50% x FAS3 x Yrs
Safety Tier 1 (Non-Integrated) (§31664.1)	**Retirement Age**	**Benefit Formula**
	50 and over	3.00% x FAS1 x Yrs
Safety Tier 2 (Non-Integrated) (§31664.1)	**Retirement Age**	**Benefit Formula**
	50 and over	3.00% x FAS3 x Yrs
Safety Tier 2C (Non-Integrated) (§31664)	**Retirement Age**	**Benefit Formula**

	50	2.00% x FAS3 x Yrs
	55 and over	2.62% x FAS3 x Yrs
Safety Tier 2D (Non-Integrated) (§31664.2)	**Retirement Age**	**Benefit Formula**
	50	2.29% x FAS3 x Yrs
	55 and over	3.00% x FAS3 x Yrs
Safety Tier 4 (Non-Integrated) (§7522.25(d))	**Retirement Age**	**Benefit Formula**
	50	2.00% x FAS3 x Yrs
	55	2.50% x FAS3 x Yrs
	57 and over	2.70% x FAS3 x Yrs
Maximum Benefit:		
Non-Tier 4	100% of Highest Average Compensation (§31676.1, §31676.12, §31676.18, §31664, §31664.1, and §31664.2).	
Tier 4	None.	
Non-Service Connected Disability:		
General Tier 1, Tier 2, Tier 3, and Tier 4		
Eligibility	Five years of service (§31720).	
Benefit Formula	1.8% of Final Compensation per year of service for General Tier 1 and Tier 3 and 1.5% of Final Compensation per year of service for General Tier 2 and Tier 4. If the benefit does not exceed one-third of Final Compensation, the service is projected to 62 for General Tier 1 and Tier 3, and to age 65 for General Tier 2 and Tier 4, but the total benefit cannot be more than one-third of Final Compensation (§31727.1 and §31727).	
Safety Tier 1, Tier 2, Tier 2C, Tier 2D and Tier 4		
Eligibility	Five years of service (§31720).	
Benefit Formula	1.8% of Final Compensation per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 55, but the total benefit cannot be more than one-third of Final Compensation (§31727.2).	

Service Connected Disability:	
All Members	
Eligibility	No age or service requirements (§31720).
Benefit Formula	50% of the Final Compensation or 100% of Service Retirement benefit, if greater (§31727.4).
Pre-Retirement Death:	
All Members	
Eligibility	None.
Basic lump sum benefit	Refund of employee contributions with interest, plus one month's compensation for each year of service, to a maximum of six month's compensation (§31781).
Service Connected Death	50% of Final Compensation or 100% of Service Retirement benefit, if greater, payable to spouse or minor children (§31787).
	OR
Vested Members	
Eligibility	Five years of service.
Basic benefit	60% of the greater of Service or Non-Service Connected Disability Retirement benefit payable to surviving eligible spouse (§31765.1, §31781.1), in lieu of the basic lump sum benefit above.
Service Connected Death	50% of Final Compensation or 100% of Service Retirement benefit, if greater, payable to spouse or minor children (§31787).
Death After Retirement:	
All Members	
Service Retirement or Non-Service Connected Disability Retirement	Unless another option was selected at retirement, 60% of member's unmodified allowance continues to eligible spouse (§31760.1) and lump sum death burial benefit payable to member's beneficiary (§31789.3). An eligible spouse is a surviving spouse who was married to the member at least one year prior to the date of retirement (§31760.1). Based on action taken by the Board in February 2014, we are continuing to exclude the death burial benefit from the pension valuation.
Service Connected Disability	Unless another option was selected at retirement, 100% of member's allowance continued to eligible spouse (§31786).

Withdrawal Benefits:	
Less than Five Years of Service	Refund of accumulated employee contributions with interest, or benefit at age 70 (§31628). Effective January 1, 2003, a member may also elect to leave contributions on deposit in the retirement fund (§31629.5).
Five or More Years of Service	If contributions left on deposit, entitled to earned benefits commencing at any time after eligible to retire (§31700).
Post-retirement Cost-of-Living Benefits:	
General Tier 1, General Tier 3 and Safety Tier 1	Annual adjustment based on Consumer Price Index to a maximum of 3% per year; excess "banked" (§31870.1).
General Tier 2, General Tier 4 Safety Tier 2, Safety Tier 2C, Safety Tier 2D, and Safety Tier 4	Annual adjustment based on Consumer Price Index to a maximum of 2% per year; excess "banked" (§31870).
Supplemental Benefit:	Non-vested supplemental COLA and medical benefits are also paid from the Supplemental Retirees Benefit Reserve to eligible retirees and survivors. These benefits have been excluded from this valuation.
Member Contributions:	Please refer to *Section 4, Exhibit III* for specific rates.
General Tier 1	
Basic	Entry-age based rates that provide for an average annuity at age 60 equal to 1/100 of FAS1 (§31621.2).
Cost-of-Living	Entry-age based rates that provide for one-half of future Cost-of-Living costs.
General Tier 2	
Basic	Entry-age based rates that provide for an average annuity at age 60 equal to 1/120 of FAS3 (§31621).
Cost-of-Living	Entry-age based rates that provide for one-half of future Cost-of-Living costs.
General Tier 3	
Basic	Entry-age based rates that provide for an average annuity at age 55 equal to 1/100 of FAS1 (§31621.8).
Cost-of-Living	Entry-age based rates that provide for one-half of future Cost-of-Living costs.
General Tier 4	50% of the total Normal Cost rate.
Safety Non-Tier 4	
Basic	Entry-age based rates that provide for an average annuity at age 50 equal to 1/100 of FAS1 (FAS3 for Tier 2, Tier 2C, and Tier 2D) (§31639.25). As instructed by ACERA, we have also included a 3% cost-sharing

	contribution that we understand will be paid by Safety Tier 1 and Tier 2 members. For Safety Tier 2C members, there are no cost-sharing contributions. For Safety Tier 2D members, the cost-sharing contribution rate is 5% of salary for the first 5 years of vesting service and 3% of salary for each subsequent year of vesting service. (The 3% cost-sharing contribution for Safety Tiers 1, 2, and 2D (after 5 years of service) will continue even after the member attains 30 years of service.)
Cost-of-Living	Entry-age based rates that provide for one-half of future Cost-of-Living costs.
Safety Tier 4	50% of the total Normal Cost rate.
Other Information:	Except for the 3% cost-sharing contribution described above, non-Tier 4 Safety members are exempt from paying member contributions after 30 or more years of service. This exemption also applies for General members hired on or before March 7, 1973.
Changes in Plan Provisions:	There have been no changes in plan provisions since the last valuation.

Note: The summary of major plan provisions is designed to outline principal plan benefits as interpreted for purposes of the actuarial valuation. If the Association should find the plan summary not in accordance with the actual provisions, the Association should alert the actuary so they can both be sure the proper provisions are valued.

Exhibit III: Member Contribution Rates

Comparison of Total Member Rate[1] from December 31, 2019 (New) and December 31, 2018 (Current) Valuations:

General Tier 1

Entry Age	Current	New	Change
25	9.36%	9.31%	**-0.05%**
35	11.31%	11.26%	**-0.05%**
45	13.65%	13.59%	**-0.06%**

General Tier 2

Entry Age	Current	New	Change
25	6.45%	6.44%	**-0.01%**
35	7.78%	7.78%	**0.00%**
45	9.38%	9.38%	**0.00%**

General Tier 3

Entry Age	Current	New	Change
25	10.97%	11.20%	**0.23%**
35	13.24%	13.51%	**0.27%**
45	16.04%	16.37%	**0.33%**

General Tier 4

Entry Age[2]	Current	New	Change
Any	8.80%	8.85%	**0.05%**

Safety Tier 1

Entry Age	Current	New	Change
25	17.99%	17.68%	**-0.31%**
30	19.29%	18.95%	**-0.34%**
35	20.75%	20.39%	**-0.36%**

Safety Tier 2

Entry Age	Current	New	Change
25	15.14%	15.14%	**0.00%**
30	16.20%	16.20%	**0.00%**
35	17.37%	17.37%	**0.00%**

Safety Tier 2C

Entry Age	Current	New	Change
25	11.60%	11.57%	**-0.03%**
30	12.61%	12.58%	**-0.03%**
35	13.73%	13.69%	**-0.04%**

Safety Tier 2D (with less than 5 years of vesting service)

Entry Age	Current	New	Change
25	16.97%	16.99%	**0.02%**
30	18.02%	18.04%	**0.02%**
35	19.17%	19.20%	**0.03%**

Safety Tier 2D (with 5 or more years of vesting service)

Entry Age	Current	New	Change
25	14.97%	14.99%	**0.02%**
30	16.02%	16.04%	**0.02%**
35	17.17%	17.20%	**0.03%**

Safety Tier 4

Entry Age[2]	Current	New	Change
Any	15.58%	15.42%	**-0.16%**

[1] For the non-CalPEPRA tiers, contributions for the first $161 of biweekly payroll are based on 2/3 of the above rates for integrated members.
[2] Tier 4 member rates are independent of entry age.

Exhibit III: Member Contribution Rates (continued)

Breakdown of member rate between basic and COLA calculated in the December 31, 2019 and December 31, 2018 valuations:

	December 31, 2019 Actuarial Valuation								December 31, 2018 Actuarial Valuation[1]							
	BASIC		COLA		COST SHARING CONTRIBUTIONS[2]		TOTAL		BASIC		COLA		COST SHARING CONTRIBUTIONS[2]		TOTAL	
	Rate	Estimated Annual Amount[3]	Rate	Estimated Annual Amount[3]	Rate	Estimated Annual Amount[3]	Rate	Estimated Annual Amount[3]	Rate	Estimated Annual Amount[3]	Rate	Estimated Annual Amount[3]	Rate	Estimated Annual Amount[3]	Rate	Estimated Annual Amount[3]
General Tier 1	6.84%	$866	2.59%	$327			9.43%	$1,193	6.84%	$866	2.63%	$332			9.47%	$1,198
General Tier 2	6.19%	36,228	1.51%	8,837			7.70%	45,065	6.19%	36,228	1.51%	8,837			7.70%	45,065
General Tier 3	10.10%	183	4.31%	78			14.41%	261	10.10%	183	4.03%	73			14.13%	256
General Tier 4	7.22%	25,446	1.63%	5,745			8.85%	31,191	7.18%	25,305	1.62%	5,710			8.80%	31,015
Safety Tier 1	4.47%	34	2.49%	19	3.00%	$23	9.96%	76	4.47%	34	2.65%	20	3.00%	$23	10.12%	77
Safety Tier 2	9.08%	10,436	3.73%	4,286	3.00%	3,448	15.81%	18,170	9.08%	10,436	3.74%	4,298	3.00%	3,448	15.82%	18,182
Safety Tier 2C	10.02%	312	3.46%	108	0.00%	0	13.48%	420	10.02%	312	3.50%	109	0.00%	0	13.52%	421
Safety Tier 2D	9.35%	1,465	3.69%	578	3.05%	478	16.09%	2,521	9.35%	1,465	3.67%	575	3.05%	478	16.07%	2,518
Safety Tier 4	12.16%	5,172	3.26%	1,387	0.00%	0	15.42%	6,559	12.29%	5,227	3.29%	1,400	0.00%	0	15.58%	6,627
All Tiers Combined	**7.10%**	**$80,142**	**1.89%**	**$21,365**	**0.35%**	**$3,949**	**9.34%**	**$105,456**	**7.09%**	**$80,056**	**1.89%**	**$21,354**	**0.35%**	**$3,949**	**9.33%**	**$105,359**

[1] These rates have been re-calculated by applying the individual entry age based member rates determined in December 31, 2018 valuation to the Association membership as of December 31, 2019.

[2] Cost sharing contributions for Safety Tier 2D members are determined based on proportion of members contributing 5.00% (with less than 5 years of vesting service) and 3.00% (with 5 or more years of vesting service).

[3] Amounts are in thousands and are based on December 31, 2019 annual payroll (also in thousands):

	County	AHS, Court & First 5	Housing Authority	LARPD	Total
General Tier 1	$7,586	$1,566	$2,879	$623	$12,654
General Tier 2	390,655	194,387	224		585,266
General Tier 3				1,811	1,811
General Tier 4	215,208	133,904	1,430	1,897	352,439
Safety Tier 1	761				761
Safety Tier 2	114,929				114,929
Safety Tier 2C	3,115				3,115
Safety Tier 2D	15,666				15,666
Safety Tier 4	42,534				42,534
Total	$790,454	$329,857	$4,533	$4,331	$1,129,175

Exhibit III: Member Contribution Rates (continued)

General Tier 1 Members' Contribution Rates Based on the December 31, 2019 Actuarial Valuation (as a % of biweekly payroll)

General Tier 1						
	Basic		COLA		Total	
Entry Age	First $161	Over $161[1]	First $161	Over $161[1]	First $161	Over $161[1]
16 & Under	3.79%	5.68%	1.43%	2.15%	5.22%	7.83%
17	3.86%	5.79%	1.46%	2.19%	5.32%	7.98%
18	3.94%	5.91%	1.49%	2.23%	5.43%	8.14%
19	4.02%	6.03%	1.52%	2.28%	5.54%	8.31%
20	4.10%	6.14%	1.55%	2.32%	5.65%	8.46%
21	4.18%	6.26%	1.58%	2.37%	5.76%	8.63%
22	4.26%	6.39%	1.61%	2.41%	5.87%	8.80%
23	4.34%	6.51%	1.64%	2.46%	5.98%	8.97%
24	4.42%	6.64%	1.67%	2.51%	6.09%	9.15%
25	4.51%	6.76%	1.70%	2.55%	6.21%	9.31%
26	4.60%	6.89%	1.73%	2.60%	6.33%	9.49%
27	4.68%	7.03%	1.77%	2.65%	6.45%	9.68%
28	4.77%	7.16%	1.81%	2.71%	6.58%	9.87%
29	4.87%	7.30%	1.84%	2.76%	6.71%	10.06%
30	4.96%	7.44%	1.87%	2.81%	6.83%	10.25%
31	5.05%	7.58%	1.91%	2.86%	6.96%	10.44%
32	5.15%	7.72%	1.95%	2.92%	7.10%	10.64%
33	5.25%	7.87%	1.98%	2.97%	7.23%	10.84%
34	5.35%	8.02%	2.02%	3.03%	7.37%	11.05%
35	5.45%	8.17%	2.06%	3.09%	7.51%	11.26%
36	5.55%	8.32%	2.09%	3.14%	7.64%	11.46%
37	5.65%	8.48%	2.13%	3.20%	7.78%	11.68%
38	5.76%	8.64%	2.17%	3.26%	7.93%	11.90%
39	5.87%	8.80%	2.22%	3.33%	8.09%	12.13%

[1] Use these rates for non-integrated members .

Exhibit III: Member Contribution Rates (continued)

General Tier 1						
	Basic		COLA		Total	
Entry Age	First $161	Over $161[1]	First $161	Over $161[1]	First $161	Over $161[1]
40	5.98%	8.97%	2.26%	3.39%	8.24%	12.36%
41	6.09%	9.14%	2.30%	3.45%	8.39%	12.59%
42	6.21%	9.31%	2.35%	3.52%	8.56%	12.83%
43	6.33%	9.49%	2.39%	3.59%	8.72%	13.08%
44	6.45%	9.68%	2.43%	3.65%	8.88%	13.33%
45	6.58%	9.86%	2.49%	3.73%	9.07%	13.59%
46	6.70%	10.06%	2.53%	3.80%	9.23%	13.86%
47	6.84%	10.26%	2.58%	3.87%	9.42%	14.13%
48	6.98%	10.47%	2.63%	3.95%	9.61%	14.42%
49	7.12%	10.67%	2.69%	4.03%	9.81%	14.70%
50	7.24%	10.86%	2.73%	4.10%	9.97%	14.96%
51	7.37%	11.06%	2.79%	4.18%	10.16%	15.24%
52	7.49%	11.24%	2.83%	4.25%	10.32%	15.49%
53	7.59%	11.39%	2.87%	4.30%	10.46%	15.69%
54	7.69%	11.54%	2.91%	4.36%	10.60%	15.90%
55	7.78%	11.67%	2.94%	4.41%	10.72%	16.08%
56	7.84%	11.76%	2.96%	4.44%	10.80%	16.20%
57	7.80%	11.70%	2.95%	4.42%	10.75%	16.12%
58	7.66%	11.49%	2.89%	4.34%	10.55%	15.83%
59 & Over	7.34%	11.01%	2.77%	4.16%	10.11%	15.17%

Interest:	7.25% per annum
COLA:	3.00%
Mortality:	See *Section 4, Exhibit I*
Salary Increase:	Inflation (3.00%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit I*)
COLA Loading Factor:	37.77%
Terminal Pay:	8.0%

[1] Use these rates for non-integrated members.

Exhibit III: Member Contribution Rates (continued)

General Tier 2 Members' Contribution Rates Based on the December 31, 2019 Actuarial Valuation (as a % of biweekly payroll)

General Tier 2						
	Basic		COLA		Total	
Entry Age	First $161	Over $161[1]	First $161	Over $161[1]	First $161	Over $161[1]
16 & Under	2.90%	4.35%	0.71%	1.06%	3.61%	5.41%
17	2.96%	4.43%	0.72%	1.08%	3.68%	5.51%
18	3.01%	4.52%	0.73%	1.10%	3.74%	5.62%
19	3.07%	4.61%	0.75%	1.13%	3.82%	5.74%
20	3.13%	4.70%	0.77%	1.15%	3.90%	5.85%
21	3.20%	4.79%	0.78%	1.17%	3.98%	5.96%
22	3.26%	4.89%	0.79%	1.19%	4.05%	6.08%
23	3.32%	4.98%	0.81%	1.22%	4.13%	6.20%
24	3.39%	5.08%	0.83%	1.24%	4.22%	6.32%
25	3.45%	5.18%	0.84%	1.26%	4.29%	6.44%
26	3.52%	5.28%	0.86%	1.29%	4.38%	6.57%
27	3.58%	5.38%	0.87%	1.31%	4.45%	6.69%
28	3.65%	5.48%	0.89%	1.34%	4.54%	6.82%
29	3.72%	5.58%	0.91%	1.36%	4.63%	6.94%
30	3.79%	5.69%	0.93%	1.39%	4.72%	7.08%
31	3.87%	5.80%	0.95%	1.42%	4.82%	7.22%
32	3.94%	5.91%	0.96%	1.44%	4.90%	7.35%
33	4.01%	6.02%	0.98%	1.47%	4.99%	7.49%
34	4.09%	6.13%	1.00%	1.50%	5.09%	7.63%
35	4.17%	6.25%	1.02%	1.53%	5.19%	7.78%
36	4.25%	6.37%	1.04%	1.56%	5.29%	7.93%
37	4.33%	6.49%	1.05%	1.58%	5.38%	8.07%
38	4.41%	6.61%	1.07%	1.61%	5.48%	8.22%
39	4.49%	6.73%	1.10%	1.65%	5.59%	8.38%

[1] Use these rates for non-integrated members .

Exhibit III: Member Contribution Rates (continued)

General Tier 2

	Basic		COLA		Total	
Entry Age	First $161	Over $161[1]	First $161	Over $161[1]	First $161	Over $161[1]
40	4.57%	6.86%	1.12%	1.68%	5.69%	8.54%
41	4.66%	6.99%	1.14%	1.71%	5.80%	8.70%
42	4.75%	7.12%	1.16%	1.74%	5.91%	8.86%
43	4.84%	7.26%	1.18%	1.77%	6.02%	9.03%
44	4.93%	7.40%	1.21%	1.81%	6.14%	9.21%
45	5.03%	7.54%	1.23%	1.84%	6.26%	9.38%
46	5.13%	7.69%	1.25%	1.88%	6.38%	9.57%
47	5.23%	7.84%	1.28%	1.92%	6.51%	9.76%
48	5.33%	7.99%	1.30%	1.95%	6.63%	9.94%
49	5.42%	8.13%	1.33%	1.99%	6.75%	10.12%
50	5.51%	8.27%	1.35%	2.02%	6.86%	10.29%
51	5.59%	8.39%	1.37%	2.05%	6.96%	10.44%
52	5.67%	8.50%	1.39%	2.08%	7.06%	10.58%
53	5.73%	8.60%	1.40%	2.10%	7.13%	10.70%
54	5.79%	8.68%	1.41%	2.12%	7.20%	10.80%
55	5.81%	8.71%	1.42%	2.13%	7.23%	10.84%
56	5.78%	8.67%	1.41%	2.12%	7.19%	10.79%
57	5.72%	8.58%	1.39%	2.09%	7.11%	10.67%
58	5.91%	8.87%	1.45%	2.17%	7.36%	11.04%
59 & Over	6.12%	9.18%	1.49%	2.24%	7.61%	11.42%

Interest:	7.25% per annum
COLA:	2.00%
Mortality:	See *Section 4, Exhibit I*
Salary Increase:	Inflation (3.00%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit I*)
COLA Loading Factor:	24.43%
Terminal Pay:	3.0%

[1] Use these rates for non-integrated members.

Exhibit III: Member Contribution Rates (continued)

General Tier 3 Members' Contribution Rates Based on the December 31, 2019 Actuarial Valuation (as a % of biweekly payroll)

General Tier 3

	Basic		COLA		Total	
Entry Age	First $161	Over $161[1]	First $161	Over $161[1]	First $161	Over $161[1]
16 & Under	4.40%	6.60%	1.89%	2.83%	6.29%	9.43%
17	4.49%	6.73%	1.93%	2.89%	6.42%	9.62%
18	4.58%	6.86%	1.96%	2.94%	6.54%	9.80%
19	4.67%	7.00%	2.00%	3.00%	6.67%	10.00%
20	4.76%	7.13%	2.04%	3.06%	6.80%	10.19%
21	4.85%	7.27%	2.08%	3.12%	6.93%	10.39%
22	4.94%	7.41%	2.12%	3.18%	7.06%	10.59%
23	5.03%	7.55%	2.16%	3.24%	7.19%	10.79%
24	5.13%	7.70%	2.20%	3.30%	7.33%	11.00%
25	5.23%	7.84%	2.24%	3.36%	7.47%	11.20%
26	5.33%	7.99%	2.29%	3.43%	7.62%	11.42%
27	5.43%	8.14%	2.33%	3.49%	7.76%	11.63%
28	5.53%	8.30%	2.37%	3.56%	7.90%	11.86%
29	5.64%	8.46%	2.41%	3.62%	8.05%	12.08%
30	5.74%	8.62%	2.46%	3.69%	8.20%	12.31%
31	5.85%	8.78%	2.51%	3.76%	8.36%	12.54%
32	5.96%	8.94%	2.55%	3.83%	8.51%	12.77%
33	6.07%	9.11%	2.61%	3.91%	8.68%	13.02%
34	6.19%	9.28%	2.65%	3.98%	8.84%	13.26%
35	6.31%	9.46%	2.70%	4.05%	9.01%	13.51%
36	6.43%	9.64%	2.75%	4.13%	9.18%	13.77%
37	6.55%	9.82%	2.81%	4.21%	9.36%	14.03%
38	6.67%	10.01%	2.86%	4.29%	9.53%	14.30%
39	6.80%	10.20%	2.91%	4.37%	9.71%	14.57%

[1] Use these rates for non-integrated members .

Exhibit III: Member Contribution Rates (continued)

General Tier 3						
	Basic		COLA		Total	
Entry Age	First $161	Over $161[1]	First $161	Over $161[1]	First $161	Over $161[1]
40	6.93%	10.40%	2.97%	4.46%	9.90%	14.86%
41	7.07%	10.61%	3.03%	4.55%	10.10%	15.16%
42	7.21%	10.82%	3.09%	4.64%	10.30%	15.46%
43	7.36%	11.04%	3.15%	4.73%	10.51%	15.77%
44	7.50%	11.26%	3.21%	4.82%	10.71%	16.08%
45	7.64%	11.46%	3.27%	4.91%	10.91%	16.37%
46	7.78%	11.66%	3.33%	5.00%	11.11%	16.66%
47	7.90%	11.85%	3.39%	5.08%	11.29%	16.93%
48	8.01%	12.01%	3.43%	5.15%	11.44%	17.16%
49	8.11%	12.17%	3.47%	5.21%	11.58%	17.38%
50	8.20%	12.30%	3.51%	5.27%	11.71%	17.57%
51	8.27%	12.40%	3.54%	5.31%	11.81%	17.71%
52	8.22%	12.33%	3.53%	5.29%	11.75%	17.62%
53	8.08%	12.12%	3.46%	5.19%	11.54%	17.31%
54 & Over	7.74%	11.61%	3.32%	4.98%	11.06%	16.59%

Interest:	7.25% per annum
COLA:	3.00%
Mortality:	See *Section 4, Exhibit I*
Salary Increase:	Inflation (3.00%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit I*)
COLA Loading Factor:	42.86%
Terminal Pay:	8.0%

[1] Use these rates for non-integrated members.

Exhibit III: Member Contribution Rates (continued)

General Tier 4 Members' Contribution Rates Based on the December 31, 2019 Actuarial Valuation (as a % of biweekly eligible payroll)[1]

	General Tier 4		
	Basic	COLA	Total
Entry Age	Eligible Pay	Eligible Pay	Eligible Pay
All Ages	7.22%	1.63%	8.85%

Interest:	7.25% per annum
COLA:	2.00%
Mortality:	See *Section 4, Exhibit I*
Salary Increase:	Inflation (3.00%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit I*)
COLA Loading Factor:	22.58%
Terminal Pay:	0.0%

[1] It is our understanding that in the determination of pension benefits under the CalPEPRA formulas, the compensation that can be taken into account for 2020 is equal to $126,291. (For an employer that is not enrolled in Social Security, the maximum amount is 120% of $126,291, or $151,549). (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2020. (reference: Section 7522.10(d))

Exhibit III: Member Contribution Rates (continued)

Safety Tier 1 Members' Contribution Rates Based on the December 31, 2019 Actuarial Valuation (as a % of biweekly payroll)

	Safety Tier 1							
	Basic		Cost Sharing Contributions		COLA		Total	
Entry Age	First $161	Over $161[1]	First $161	Over $161[1]	First $161	Over $161[1]	First $161	Over $161[1]
16 & Under	5.40%	8.11%	3.00%	3.00%	3.03%	4.54%	11.43%	15.65%
17	5.49%	8.24%	3.00%	3.00%	3.08%	4.62%	11.57%	15.86%
18	5.59%	8.38%	3.00%	3.00%	3.13%	4.70%	11.72%	16.08%
19	5.68%	8.52%	3.00%	3.00%	3.19%	4.78%	11.87%	16.30%
20	5.77%	8.66%	3.00%	3.00%	3.24%	4.86%	12.01%	16.52%
21	5.87%	8.81%	3.00%	3.00%	3.29%	4.94%	12.16%	16.75%
22	5.97%	8.95%	3.00%	3.00%	3.35%	5.02%	12.32%	16.97%
23	6.07%	9.10%	3.00%	3.00%	3.40%	5.10%	12.47%	17.20%
24	6.17%	9.25%	3.00%	3.00%	3.46%	5.19%	12.63%	17.44%
25	6.27%	9.41%	3.00%	3.00%	3.51%	5.27%	12.78%	17.68%
26	6.38%	9.57%	3.00%	3.00%	3.57%	5.36%	12.95%	17.93%
27	6.48%	9.73%	3.00%	3.00%	3.63%	5.45%	13.11%	18.18%
28	6.59%	9.89%	3.00%	3.00%	3.69%	5.54%	13.28%	18.43%
29	6.70%	10.05%	3.00%	3.00%	3.76%	5.64%	13.46%	18.69%
30	6.82%	10.22%	3.00%	3.00%	3.82%	5.73%	13.64%	18.95%
31	6.93%	10.40%	3.00%	3.00%	3.89%	5.83%	13.82%	19.23%
32	7.05%	10.58%	3.00%	3.00%	3.95%	5.93%	14.00%	19.51%
33	7.17%	10.76%	3.00%	3.00%	4.02%	6.03%	14.19%	19.79%
34	7.30%	10.95%	3.00%	3.00%	4.09%	6.14%	14.39%	20.09%
35	7.43%	11.14%	3.00%	3.00%	4.17%	6.25%	14.60%	20.39%
36	7.56%	11.34%	3.00%	3.00%	4.24%	6.36%	14.80%	20.70%
37	7.70%	11.55%	3.00%	3.00%	4.32%	6.48%	15.02%	21.03%
38	7.85%	11.77%	3.00%	3.00%	4.40%	6.60%	15.25%	21.37%
39	8.01%	12.01%	3.00%	3.00%	4.49%	6.73%	15.50%	21.74%

[1] Use these rates for non-integrated members.

Exhibit III: Member Contribution Rates (continued)

Safety Tier 1

Entry Age	Basic		Cost Sharing Contributions		COLA		Total	
	First $161	Over $161[1]	First $161	Over $161[1]	First $161	Over $161[1]	First $161	Over $161[1]
40	8.16%	12.25%	3.00%	3.00%	4.58%	6.87%	15.74%	22.12%
41	8.33%	12.49%	3.00%	3.00%	4.67%	7.00%	16.00%	22.49%
42	8.51%	12.76%	3.00%	3.00%	4.77%	7.16%	16.28%	22.92%
43	8.67%	13.00%	3.00%	3.00%	4.86%	7.29%	16.53%	23.29%
44	8.79%	13.19%	3.00%	3.00%	4.93%	7.39%	16.72%	23.58%
45	8.85%	13.27%	3.00%	3.00%	4.96%	7.44%	16.81%	23.71%
46	8.86%	13.28%	3.00%	3.00%	4.97%	7.45%	16.83%	23.73%
47	8.68%	13.02%	3.00%	3.00%	4.87%	7.30%	16.55%	23.32%
48	8.41%	12.62%	3.00%	3.00%	4.71%	7.07%	16.12%	22.69%
49 & Over	7.94%	11.91%	3.00%	3.00%	4.45%	6.68%	15.39%	21.59%

Interest:	7.25% per annum
COLA:	3.00%
Mortality:	See *Section 4, Exhibit I*
Salary Increase:	Inflation (3.00%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit I*)
COLA Loading Factor:	56.06%
Terminal Pay:	8.5%

[1] Use these rates for non-integrated members.

Exhibit III: Member Contribution Rates (continued)

Safety Tier 2 Members' Contribution Rates Based on the December 31, 2019 Actuarial Valuation
(as a % of biweekly payroll)

Safety Tier 2								
	Basic		Cost Sharing Contributions		COLA		Total	
Entry Age	First $161	Over $161[1]	First $161	Over $161[1]	First $161	Over $161[1]	First $161	Over $161[1]
16 & Under	4.94%	7.42%	3.00%	3.00%	2.03%	3.05%	9.97%	13.47%
17	5.03%	7.54%	3.00%	3.00%	2.07%	3.10%	10.10%	13.64%
18	5.11%	7.67%	3.00%	3.00%	2.10%	3.15%	10.21%	13.82%
19	5.20%	7.79%	3.00%	3.00%	2.14%	3.21%	10.34%	14.00%
20	5.28%	7.92%	3.00%	3.00%	2.17%	3.26%	10.45%	14.18%
21	5.37%	8.05%	3.00%	3.00%	2.21%	3.31%	10.58%	14.36%
22	5.46%	8.19%	3.00%	3.00%	2.25%	3.37%	10.71%	14.56%
23	5.55%	8.32%	3.00%	3.00%	2.28%	3.42%	10.83%	14.74%
24	5.64%	8.46%	3.00%	3.00%	2.32%	3.48%	10.96%	14.94%
25	5.74%	8.60%	3.00%	3.00%	2.36%	3.54%	11.10%	15.14%
26	5.83%	8.75%	3.00%	3.00%	2.40%	3.60%	11.23%	15.35%
27	5.93%	8.89%	3.00%	3.00%	2.44%	3.66%	11.37%	15.55%
28	6.03%	9.04%	3.00%	3.00%	2.48%	3.72%	11.51%	15.76%
29	6.13%	9.19%	3.00%	3.00%	2.52%	3.78%	11.65%	15.97%
30	6.23%	9.35%	3.00%	3.00%	2.57%	3.85%	11.80%	16.20%
31	6.34%	9.51%	3.00%	3.00%	2.61%	3.91%	11.95%	16.42%
32	6.45%	9.67%	3.00%	3.00%	2.65%	3.98%	12.10%	16.65%
33	6.56%	9.83%	3.00%	3.00%	2.70%	4.05%	12.26%	16.88%
34	6.67%	10.01%	3.00%	3.00%	2.75%	4.12%	12.42%	17.13%
35	6.79%	10.18%	3.00%	3.00%	2.79%	4.19%	12.58%	17.37%
36	6.91%	10.37%	3.00%	3.00%	2.84%	4.26%	12.75%	17.63%
37	7.04%	10.56%	3.00%	3.00%	2.89%	4.34%	12.93%	17.90%
38	7.17%	10.75%	3.00%	3.00%	2.95%	4.42%	13.12%	18.17%
39	7.30%	10.95%	3.00%	3.00%	3.01%	4.51%	13.31%	18.46%

[1] Use these rates for non-integrated members.

Exhibit III: Member Contribution Rates (continued)

Safety Tier 2

Entry Age	Basic		Cost Sharing Contributions		COLA		Total	
	First $161	Over $161[1]	First $161	Over $161[1]	First $161	Over $161[1]	First $161	Over $161[1]
40	7.44%	11.16%	3.00%	3.00%	3.06%	4.59%	13.50%	18.75%
41	7.58%	11.36%	3.00%	3.00%	3.11%	4.67%	13.69%	19.03%
42	7.69%	11.54%	3.00%	3.00%	3.17%	4.75%	13.86%	19.29%
43	7.77%	11.66%	3.00%	3.00%	3.20%	4.80%	13.97%	19.46%
44	7.80%	11.70%	3.00%	3.00%	3.21%	4.82%	14.01%	19.52%
45	7.75%	11.63%	3.00%	3.00%	3.19%	4.78%	13.94%	19.41%
46	7.62%	11.43%	3.00%	3.00%	3.13%	4.70%	13.75%	19.13%
47	7.43%	11.14%	3.00%	3.00%	3.05%	4.58%	13.48%	18.72%
48	7.68%	11.52%	3.00%	3.00%	3.16%	4.74%	13.84%	19.26%
49 & Over	7.94%	11.91%	3.00%	3.00%	3.27%	4.90%	14.21%	19.81%

Interest:	7.25% per annum
COLA:	2.00%
Mortality:	See *Section 4, Exhibit I*
Salary Increase:	Inflation (3.00%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit I*)
COLA Loading Factor:	41.14%
Terminal Pay:	3.5%

[1] Use these rates for non-integrated members.

Exhibit III: Member Contribution Rates (continued)

Safety Tier 2C Members' Contribution Rates Based on the December 31, 2019 Actuarial Valuation (as a % of biweekly payroll)

Safety Tier 2C						
	Basic		COLA		Total	
Entry Age	First $161	Over $161[1]	First $161	Over $161[1]	First $161	Over $161[1]
16 & Under	4.94%	7.42%	1.71%	2.56%	6.65%	9.98%
17	5.03%	7.54%	1.73%	2.60%	6.76%	10.14%
18	5.11%	7.67%	1.76%	2.64%	6.87%	10.31%
19	5.20%	7.79%	1.79%	2.69%	6.99%	10.48%
20	5.28%	7.92%	1.82%	2.73%	7.10%	10.65%
21	5.37%	8.05%	1.85%	2.78%	7.22%	10.83%
22	5.46%	8.19%	1.89%	2.83%	7.35%	11.02%
23	5.55%	8.32%	1.91%	2.87%	7.46%	11.19%
24	5.64%	8.46%	1.95%	2.92%	7.59%	11.38%
25	5.74%	8.60%	1.98%	2.97%	7.72%	11.57%
26	5.83%	8.75%	2.01%	3.02%	7.84%	11.77%
27	5.93%	8.89%	2.05%	3.07%	7.98%	11.96%
28	6.03%	9.04%	2.08%	3.12%	8.11%	12.16%
29	6.13%	9.19%	2.11%	3.17%	8.24%	12.36%
30	6.23%	9.35%	2.15%	3.23%	8.38%	12.58%
31	6.34%	9.51%	2.19%	3.28%	8.53%	12.79%
32	6.45%	9.67%	2.23%	3.34%	8.68%	13.01%
33	6.56%	9.83%	2.26%	3.39%	8.82%	13.22%
34	6.67%	10.01%	2.30%	3.45%	8.97%	13.46%
35	6.79%	10.18%	2.34%	3.51%	9.13%	13.69%
36	6.91%	10.37%	2.39%	3.58%	9.30%	13.95%
37	7.04%	10.56%	2.43%	3.64%	9.47%	14.20%
38	7.17%	10.75%	2.47%	3.71%	9.64%	14.46%
39	7.30%	10.95%	2.52%	3.78%	9.82%	14.73%

[1] Use these rates for non-integrated members .

Exhibit III: Member Contribution Rates (continued)

Safety Tier 2C						
	Basic		COLA		Total	
Entry Age	First $161	Over $161[1]	First $161	Over $161[1]	First $161	Over $161[1]
40	7.44%	11.16%	2.57%	3.85%	10.01%	15.01%
41	7.58%	11.36%	2.61%	3.92%	10.19%	15.28%
42	7.69%	11.54%	2.65%	3.98%	10.34%	15.52%
43	7.77%	11.66%	2.68%	4.02%	10.45%	15.68%
44	7.80%	11.70%	2.69%	4.04%	10.49%	15.74%
45	7.75%	11.63%	2.67%	4.01%	10.42%	15.64%
46	7.62%	11.43%	2.63%	3.94%	10.25%	15.37%
47	7.43%	11.14%	2.56%	3.84%	9.99%	14.98%
48	7.68%	11.52%	2.65%	3.97%	10.33%	15.49%
49 & Over	7.94%	11.91%	2.74%	4.11%	10.68%	16.02%

Interest:	7.25% per annum
COLA:	2.00%
Mortality:	See *Section 4, Exhibit I*
Salary Increase:	Inflation (3.00%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit I*)
COLA Loading Factor:	34.50%
Terminal Pay:	3.5%

[1] Use these rates for non-integrated members.

Exhibit III: Member Contribution Rates (continued)

Safety Tier 2D Members' Contribution Rates for Members with Less than 5 Years of Vesting Service Based on the December 31, 2019 Actuarial Valuation (as a % of biweekly payroll)

Safety Tier 2D Members with Less than 5 Years of Vesting Service

	Basic		Cost Sharing Contributions		COLA		Total	
Entry Age	First $161	Over $161[1]	First $161	Over $161[1]	First $161	Over $161[1]	First $161	Over $161[1]
16 & Under	4.94%	7.42%	5.00%	5.00%	1.95%	2.92%	11.89%	15.34%
17	5.03%	7.54%	5.00%	5.00%	1.98%	2.97%	12.01%	15.51%
18	5.11%	7.67%	5.00%	5.00%	2.01%	3.02%	12.12%	15.69%
19	5.20%	7.79%	5.00%	5.00%	2.05%	3.07%	12.25%	15.86%
20	5.28%	7.92%	5.00%	5.00%	2.08%	3.12%	12.36%	16.04%
21	5.37%	8.05%	5.00%	5.00%	2.12%	3.18%	12.49%	16.23%
22	5.46%	8.19%	5.00%	5.00%	2.15%	3.23%	12.61%	16.42%
23	5.55%	8.32%	5.00%	5.00%	2.19%	3.28%	12.74%	16.60%
24	5.64%	8.46%	5.00%	5.00%	2.23%	3.34%	12.87%	16.80%
25	5.74%	8.60%	5.00%	5.00%	2.26%	3.39%	13.00%	16.99%
26	5.83%	8.75%	5.00%	5.00%	2.30%	3.45%	13.13%	17.20%
27	5.93%	8.89%	5.00%	5.00%	2.34%	3.51%	13.27%	17.40%
28	6.03%	9.04%	5.00%	5.00%	2.38%	3.57%	13.41%	17.61%
29	6.13%	9.19%	5.00%	5.00%	2.42%	3.63%	13.55%	17.82%
30	6.23%	9.35%	5.00%	5.00%	2.46%	3.69%	13.69%	18.04%
31	6.34%	9.51%	5.00%	5.00%	2.50%	3.75%	13.84%	18.26%
32	6.45%	9.67%	5.00%	5.00%	2.54%	3.81%	13.99%	18.48%
33	6.56%	9.83%	5.00%	5.00%	2.59%	3.88%	14.15%	18.71%
34	6.67%	10.01%	5.00%	5.00%	2.63%	3.95%	14.30%	18.96%
35	6.79%	10.18%	5.00%	5.00%	2.68%	4.02%	14.47%	19.20%
36	6.91%	10.37%	5.00%	5.00%	2.73%	4.09%	14.64%	19.46%
37	7.04%	10.56%	5.00%	5.00%	2.77%	4.16%	14.81%	19.72%
38	7.17%	10.75%	5.00%	5.00%	2.83%	4.24%	15.00%	19.99%
39	7.30%	10.95%	5.00%	5.00%	2.88%	4.32%	15.18%	20.27%

[1] Use these rates for non-integrated members.

Exhibit III: Member Contribution Rates (continued)

Safety Tier 2D Members with Less than 5 Years of Vesting Service

	Basic		Cost Sharing Contributions		COLA		Total	
Entry Age	**First $161**	**Over $161[1]**	**First $161**	**Over $161[1]**	**First $161**	**Over $161[1]**	**First $161**	**Over $161[1]**
40	7.44%	11.16%	5.00%	5.00%	2.93%	4.40%	15.37%	20.56%
41	7.58%	11.36%	5.00%	5.00%	2.99%	4.48%	15.57%	20.84%
42	7.69%	11.54%	5.00%	5.00%	3.03%	4.55%	15.72%	21.09%
43	7.77%	11.66%	5.00%	5.00%	3.07%	4.60%	15.84%	21.26%
44	7.80%	11.70%	5.00%	5.00%	3.08%	4.62%	15.88%	21.32%
45	7.75%	11.63%	5.00%	5.00%	3.06%	4.59%	15.81%	21.22%
46	7.62%	11.43%	5.00%	5.00%	3.01%	4.51%	15.63%	20.94%
47	7.43%	11.14%	5.00%	5.00%	2.93%	4.40%	15.36%	20.54%
48	7.68%	11.52%	5.00%	5.00%	3.03%	4.54%	15.71%	21.06%
49 & Over	7.94%	11.91%	5.00%	5.00%	3.13%	4.70%	16.07%	21.61%

Interest: 7.25% per annum
COLA: 2.00%
Mortality: See *Section 4, Exhibit I*
Salary Increase: Inflation (3.00%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit I*)
COLA Loading Factor: 39.44%
Terminal Pay: 3.5%

[1] Use these rates for non-integrated members.

Exhibit III: Member Contribution Rates (continued)

Safety Tier 2D Members with 5 or More Years of Vesting Service
Based on the December 31, 2019 Actuarial Valuation (as a % of biweekly payroll)

Safety Tier 2D Members with 5 or More Years of Vesting Service

	Basic		Cost Sharing Contributions		COLA		Total	
Entry Age	**First $161**	**Over $161[1]**	**First $161**	**Over $161[1]**	**First $161**	**Over $161[1]**	**First $161**	**Over $161[1]**
16 & Under	4.94%	7.42%	3.00%	3.00%	1.95%	2.92%	9.89%	13.34%
17	5.03%	7.54%	3.00%	3.00%	1.98%	2.97%	10.01%	13.51%
18	5.11%	7.67%	3.00%	3.00%	2.01%	3.02%	10.12%	13.69%
19	5.20%	7.79%	3.00%	3.00%	2.05%	3.07%	10.25%	13.86%
20	5.28%	7.92%	3.00%	3.00%	2.08%	3.12%	10.36%	14.04%
21	5.37%	8.05%	3.00%	3.00%	2.12%	3.18%	10.49%	14.23%
22	5.46%	8.19%	3.00%	3.00%	2.15%	3.23%	10.61%	14.42%
23	5.55%	8.32%	3.00%	3.00%	2.19%	3.28%	10.74%	14.60%
24	5.64%	8.46%	3.00%	3.00%	2.23%	3.34%	10.87%	14.80%
25	5.74%	8.60%	3.00%	3.00%	2.26%	3.39%	11.00%	14.99%
26	5.83%	8.75%	3.00%	3.00%	2.30%	3.45%	11.13%	15.20%
27	5.93%	8.89%	3.00%	3.00%	2.34%	3.51%	11.27%	15.40%
28	6.03%	9.04%	3.00%	3.00%	2.38%	3.57%	11.41%	15.61%
29	6.13%	9.19%	3.00%	3.00%	2.42%	3.63%	11.55%	15.82%
30	6.23%	9.35%	3.00%	3.00%	2.46%	3.69%	11.69%	16.04%
31	6.34%	9.51%	3.00%	3.00%	2.50%	3.75%	11.84%	16.26%
32	6.45%	9.67%	3.00%	3.00%	2.54%	3.81%	11.99%	16.48%
33	6.56%	9.83%	3.00%	3.00%	2.59%	3.88%	12.15%	16.71%
34	6.67%	10.01%	3.00%	3.00%	2.63%	3.95%	12.30%	16.96%
35	6.79%	10.18%	3.00%	3.00%	2.68%	4.02%	12.47%	17.20%
36	6.91%	10.37%	3.00%	3.00%	2.73%	4.09%	12.64%	17.46%
37	7.04%	10.56%	3.00%	3.00%	2.77%	4.16%	12.81%	17.72%
38	7.17%	10.75%	3.00%	3.00%	2.83%	4.24%	13.00%	17.99%
39	7.30%	10.95%	3.00%	3.00%	2.88%	4.32%	13.18%	18.27%

[1] Use these rates for non-integrated members.

Exhibit III: Member Contribution Rates (continued)

Safety Tier 2D Members with 5 or More Years of Vesting Service

	Basic		Cost Sharing Contributions		COLA		Total	
Entry Age	**First $161**	**Over $161[1]**	**First $161**	**Over $161[1]**	**First $161**	**Over $161[1]**	**First $161**	**Over $161[1]**
40	7.44%	11.16%	3.00%	3.00%	2.93%	4.40%	13.37%	18.56%
41	7.58%	11.36%	3.00%	3.00%	2.99%	4.48%	13.57%	18.84%
42	7.69%	11.54%	3.00%	3.00%	3.03%	4.55%	13.72%	19.09%
43	7.77%	11.66%	3.00%	3.00%	3.07%	4.60%	13.84%	19.26%
44	7.80%	11.70%	3.00%	3.00%	3.08%	4.62%	13.88%	19.32%
45	7.75%	11.63%	3.00%	3.00%	3.06%	4.59%	13.81%	19.22%
46	7.62%	11.43%	3.00%	3.00%	3.01%	4.51%	13.63%	18.94%
47	7.43%	11.14%	3.00%	3.00%	2.93%	4.40%	13.36%	18.54%
48	7.68%	11.52%	3.00%	3.00%	3.03%	4.54%	13.71%	19.06%
49 & Over	7.94%	11.91%	3.00%	3.00%	3.13%	4.70%	14.07%	19.61%

Interest:	7.25% per annum
COLA:	2.00%
Mortality:	See *Section 4, Exhibit I*
Salary Increase:	Inflation (3.00%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit I*)
COLA Loading Factor:	39.44%
Terminal Pay:	3.5%

[1] Use these rates for non-integrated members.

Exhibit III: Member Contribution Rates (continued)

Safety Tier 4 Members' Contribution Rates Based on the December 31, 2019 Actuarial Valuation (as a % of biweekly eligible payroll)[1]

	Safety Tier 4		
	Basic	COLA	Total
Entry Age	Eligible Pay	Eligible Pay	Eligible Pay
All Ages	12.16%	3.26%	15.42%

Interest:	7.25% per annum
COLA:	2.00%
Mortality:	See *Section 4, Exhibit I*
Salary Increase:	Inflation (3.00%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit I*)
COLA Loading Factor:	26.81%
Terminal Pay:	0.0%

[1] It is our understanding that in the determination of pension benefits under the CalPEPRA formulas, the compensation that can be taken into account for 2020 is equal to $126,291. (For an employer that is not enrolled in Social Security, the maximum amount is 120% of $126,291, or $151,549). (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2020. (reference: Section 7522.10(d))

Exhibit IV: Projected Employer Contributions by Each Participating Employer

Estimated Employer Contribution Requirement for Each Participating Employer in ACERA ($000s) Calculated Based on Projected Employer Compensation Used in the December 31, 2019 Actuarial Valuation

Dollar Contribution[1,3] – Based on December 31, 2019 Valuation

	General				Safety					
Employer Name (Code)	**Tier 1**	**Tier 2**	**Tier 3**	**Tier 4**	**Tier 1**	**Tier 2**	**Tier 2C**	**Tier 2D**	**Tier 4**	**Total**
Alameda County (101)	$1,738	$85,631		$46,119	$632	$73,163	$2,023	$9,918	$25,729	$244,953
Health System (106)	163	35,585		24,582						60,330
Superior Court (632)	210	8,051		4,539						12,800
First 5 (714)		665		740						1,405
Housing Authority (103)	834	63		394						1,291
LARPD (104)	237		$794	694						1,725
Total	**$3,182**	**$129,995**	**$794**	**$77,068**	**$632**	**$73,163**	**$2,023**	**$9,918**	**$25,729**	**$322,504**

Dollar Contribution[2,3] – Based on December 31, 2018 Valuation

	General				Safety					
Employer Name (Code)	**Tier 1**	**Tier 2**	**Tier 3**	**Tier 4**	**Tier 1**	**Tier 2**	**Tier 2C**	**Tier 2D**	**Tier 4**	**Total**
Alameda County (101)	$1,693	$83,600		$44,828	$613	$71,648	$1,981	$9,651	$25,180	$239,194
Health System (106)	158	34,693		23,866						58,717
Superior Court (632)	204	7,850		4,407						12,461
First 5 (714)		649		718						1,367
Housing Authority (103)	816	61		384						1,261
LARPD (104)	209		$696	610						1,515
Total	**$3,080**	**$126,853**	**$696**	**$74,813**	**$613**	**$71,648**	**$1,981**	**$9,651**	**$25,180**	**$314,515**

[1] Includes contributions only for those employers with active member payroll. The UAAL contribution for ACOE, expressed as a level dollar amount, is $89 K when made on April 1, 2021.

[2] Includes contributions only for those employers with active member payroll. The UAAL contribution for ACOE, expressed as a level dollar amount, is $78 K when made on April 1, 2020.

[3] Contribution calculated using projected compensation provided on the next page for the December 31, 2019 valuation:

Exhibit IV: Projected Employer Contributions by Each Participating Employer (continued)

	December 31, 2019 Projected Total Compensation ($000s)									
	General				Safety					
Employer Name (Code)	Tier 1	Tier 2	Tier 3	Tier 4	Tier 1	Tier 2	Tier 2C	Tier 2D	Tier 4	Total
Alameda County (101)	$7,586	$390,655		$215,208	$761	$114,929	$3,115	$15,666	$42,534	$790,454
Health System (106)	682	156,139		110,231						267,052
Superior Court (632)	884	35,328		20,356						56,568
First 5 (714)		2,920		3,317						6,237
Housing Authority (103)	2,879	224		1,430						4,533
LARPD (104)	623		1,811	1,897						4,331
Total	**$12,654**	**$585,266**	**$1,811**	**$352,439**	**$761**	**$114,929**	**$3,115**	**$15,666**	**$42,534**	**$1,129,175**

Exhibit V: Schedule of Outstanding Balances of Prior Implicit Retiree Health Benefit Subsidy Transfers

For Year(s)	Initial Years	Initial Amount[1]	Outstanding Balance	Years Remaining	Annual Payment[2]
Prior to 2013	[3]	[3]	$33,706	13	$3,301
2013	20	$6,993	6,583	14	608
2014	20	5,215	4,889	15	429
2015	20	5,325	5,144	16	430
2016	20	8,865	8,730	17	697
2017	20	5,830	5,727	18	440
2018	20	6,940	6,881	19	508
2019	20	6,511	6,511	20	464
Total			**$78,171**		**$6,877**

[1] For years 2013 and later, these amounts are estimates provided by ACERA.
[2] Level percentage of payroll.
[3] Various initial years and amounts prior to 2013.

Exhibit VI: Allocation of the Valuation Value of Assets as of December 31, 2019

The allocation of the Valuation Value of Assets is determined based on a roll-forward of the prior year allocation using employer contributions, member contributions, benefit payments, and calculated interest credits as provided by ACERA.

	General (Excluding LARPD and Office of Education)	General (Office of Education)	General (LARPD)	Safety	Total
A. Valuation Value of Assets at Beginning-of-Year					
Basic Only	$3,791,787,232	$1,770,669	$29,941,755	$1,088,871,342	$4,912,370,998
COLA Only	1,634,005,352	1,362,547	15,240,109	676,348,151	2,326,956,159
Total	$5,425,792,584	$3,133,216	$45,181,864	$1,765,219,493	$7,239,327,157
B. Adjustment for the difference between the Actual SRBR Transfer and the Estimated SRBR Transfer used in Prior Valuation					
Basic Only	$(31,418)	$0	$0	$(9,251)	$(40,669)
C. Employer Contributions					
Basic Only	$151,617,916	$750,000	$933,947	$81,391,348	$234,693,211
COLA Only	40,930,929	0	372,627	22,530,183	63,833,739
Total	$192,548,845	$750,000	$1,306,574	$103,921,531	$298,526,950
D. Employee Contributions					
Basic Only	$61,119,825	$0	$396,671	$21,226,902	$82,743,398
COLA Only	13,919,030	0	129,743	6,324,851	20,373,624
Total	$75,038,855	$0	$526,414	$27,551,753	$103,117,022
E. Benefit Payments					
Basic Only	$275,660,989	$274,991	$2,441,488	$102,352,798	$380,730,266
COLA Only	86,583,844	110,259	586,782	34,774,911	122,055,796
Total	$362,244,833	$385,250	$3,028,270	$137,127,709	$502,786,062
F. Average Valuation Value of Assets: (A) + (B) +1/2 x [(C) + (D) - (E)]					
Basic Only	$3,760,294,190	$2,008,174	$29,386,320	$1,088,994,817	$4,880,683,500
COLA Only	1,618,138,410	1,307,418	15,197,903	673,388,213	2,308,031,943
Total	$5,378,432,599	$3,315,591	$44,584,223	$1,762,383,030	$7,188,715,443
G. Return on Valuation Value of Assets: Total Column (G) / Total Column (F) x Cost Group Column (F)					
Basic Only	$238,069,898	$127,140	$1,860,492	$68,945,905	$309,003,436
COLA Only	102,581,690	82,884	963,469	42,689,365	146,317,407
Total	$340,651,588	$210,024	$2,823,961	$111,635,269	$455,320,843
H. Preliminary Valuation Value of Assets Provided by ACERA: (A) + (B) + (C) + (D) – (E) + (G)					
Basic Only	$3,966,902,464	$2,372,818	$30,691,377	$1,158,073,448	$5,158,040,107
COLA Only	1,704,853,157	1,335,172	16,119,166	713,117,639	2,435,425,134
Total	$5,671,755,621	$3,707,990	$46,810,543	$1,871,191,087	$7,593,465,241
I. Estimated SRBR Transfer and other Asset Transfer					
Basic Only	$5,052,907	$0	$0	$1,457,969	$6,510,876
COLA Only	0	0	0	0	0
Total	$5,052,907	$0	$0	$1,457,969	$6,510,876
J. Valuation Value of Assets at End of Year: (H) + (I)					
Basic Only	**$3,971,955,371**	**$2,372,818**	**$30,691,377**	**$1,159,531,417**	**$5,164,550,983**
COLA Only	**1,704,853,157**	**1,335,172**	**16,119,166**	**713,117,639**	**2,435,425,134**
Total	**$5,676,808,528**	**$3,707,990**	**$46,810,543**	**$1,872,649,056**	**$7,599,976,117**

Note: Results may be slightly off due to rounding.

NEW BUSINESS

7.E. Presentation and discussion of the GASB Statement No. 67 Valuation and addendums as of December 31, 2019 (Segal) (*Information Item*).

7.F. Presentation and discussion of the GASB Statement No. 74 Valuation and addendums as of December 31, 2019 (Segal) (*Information Item*).

ACERA

MEMORANDUM TO THE BOARD OF RETIREMENT

DATE: April 16, 2020

TO: Members of the Board of Retirement

FROM: Margo Allen, Fiscal Services Officer

SUBJECT: Draft Governmental Accounting Standards Board (GASB) Statement No. 67 and Statement No. 74 Actuarial Valuations and Addendums as of December 31, 2019

Executive Summary

Staff is in receipt of the draft GASB Statement No. 67 and draft GASB Statement No. 74 (GASB 67 and GASB 74, respectively) actuarial valuations and addendums as of December 31, 2019. It has been staff's practice to bring the GASB 67 and GASB 74 valuations (***liability reporting)*** to the audit committee for review and approval, as opposed to the pension valuation (***contribution funding***), which staff takes to the actuarial committee.

The GASB 67 valuation measures and reports the Total/Net Pension Liability (TPL/NPL), while the GASB 74 valuation measures and reports the Total/Net OPEB (Other Postemployment Benefits) Liability (TOL/NOL)

GASB Statement No. 67, Reporting the 2018 Net Pension Liability (NPL)

As of December 31, 2019, the Net Pension Liability (NPL) is $2,141 million, compared to $2,764 million as of December 31, 2018. The $623 million decrease is primarily a result of the favorable investment return during calendar year 2019 of about $679 million.

Consider the following points when reviewing the GASB 67 report:

- The GASB rules only define pension and non-OPEB liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes. Employers and plans must still develop and adopt funding policies under current practices.
- When measuring **pension liability,** GASB 67 uses the same actuarial cost method (Entry Age) and the same type of discount rate (expected return on assets) as ACERA uses for funding. This means that the TPL measure for financial reporting shown in the report is determined on generally the same basis as ACERA's Actuarial Accrued Liability (AAL) measure for funding. Note that the same is generally true for the Normal Cost component of the annual plan cost for funding and financial reporting.
- The **Net Pension Liability** (NPL) is equal to the difference between the TPL and the Plan's Fiduciary Net Position. The Plan's Fiduciary Net Position is equal to the market value of assets and therefore, the NPL measure is very similar to an Unfunded Actuarial Accrued Liability (UAAL) calculated on a market value basis.

GASB Statement No. 74, Reporting the 2018 Net OPEB Liability (NOL)

As of December 31, 2019, the Net OPEB Liability (NOL) is $112.9 million, compared to $232.9 million as of December 31, 2018. The $120.0 million decrease was primarily a result of favorable investment results during calendar year 2019 of about $135.7million (for an actual market return of 24.2%[1] versus 7.25% assumed in the valuation), offset somewhat by updating health trend assumptions[2] (which on a net basis increased the NOL by about $12.5 million).

Consider the following points when reviewing the GASB 74 report:

- The GASB rules only define OPEB liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes. Employers and plans must still develop and adopt funding policies under current practices.
- When measuring **OPEB liability**, GASB 74 uses the same actuarial cost method (Entry Age) and for benefits that are being fully funded on an actuarial basis, the same expected return on Plan assets as used for funding. This means that the TOL measure for financial reporting shown in this report is determined on the same basis as the Actuarial Accrued Liability (AAL) measure for funding.
- The **Net OPEB Liability** (NOL) is equal to the difference between the TOL and the Plan's Fiduciary Net Position. The Plan's Fiduciary Net Position is equal to the market value of assets. The NOL reflects all investment gains and losses as of the measurement date.

Conclusion

Segal Consulting is prepared to discuss the GASB 67 and the GASB 74 reporting valuations/addendums and, if necessary, the methodology used for calculating and reporting the NPL and NOL, which subsequently determines each employer's proportionate share of each liability.

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[1] It should be noted that the *positive 24.2%* market value investment return for the SRBR is higher than the *17.9%* investment return included in the December 31, 2019, pension funding valuation for ACERA's entire portfolio. The higher return for the SRBR is primarily a result of including the 50% of future excess earnings allocated to the SRBR for the deferred investment gains as of December 31, 2019.

[2] In particular, there is an increase in the long term annual trend assumption from 4.00% to 4.50% for Medicare Part B, which increased the NOL by $17.1 million. Also, the repeal of the Health Insurance Tax (HIT) effective in 2021 reduced the 2020 non-Medicare and Medicare trends which decreased the NOL by $4.6 million.

Alameda County Employees' Retirement Association (ACERA)

Governmental Accounting Standards Board Statement 67 (GASB 67) Actuarial Valuation

As of December 31, 2019

DRAFT

Segal

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segalco.com
T 415.263.8200

April 7, 2020

Board of Retirement
Alameda County Employees' Retirement Association
475 14th Street, Suite 1000
Oakland, CA 94612

Dear Board Members:

We are pleased to submit this Governmental Accounting Standards Board Statement 67 (GASB 67) Actuarial Valuation as of December 31, 2019. It contains various information that will need to be disclosed in order to comply with GASB 67.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist ACERA in preparing items related to the pension plan in their financial report. The census and financial information on which our calculations were based were provided by ACERA. That assistance is gratefully acknowledged.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law.

The actuarial calculations were completed under the supervision of Eva Yum, FSA, MAAA, Enrolled Actuary. 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. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and expectations for ACERA.

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

Sincerely,

Segal

Andy Yeung, ASA, MAAA, FCA, EA Vice President and Actuary	Eva Yum, FSA, MAAA, EA Senior Actuary

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Section 1: Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present certain disclosure information required by Governmental Accounting Standards Board Statement 67 (GASB 67) as of December 31, 2019. This valuation is based on:

- The benefit provisions of ACERA, as administered by the Board;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of November 30, 2018, provided by ACERA;
- The assets of the Plan as of December 31, 2019, provided by ACERA;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the December 31, 2019 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board for the December 31, 2019 valuation.

General observations on GASB 67 actuarial valuation

1. It is important to note that Governmental Accounting Standards Board (GASB) rules only define pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes. Employers and plans develop and adopt funding policies under current practices.
2. When measuring pension liability, GASB uses the same actuarial cost method (Entry Age method) and the same type of discount rate (expected return on assets) as ACERA uses for funding. This means that the Total Pension Liability (TPL) measure for financial reporting shown in this report is generally determined on the same basis as ACERA's Actuarial Accrued Liability (AAL) measure for funding. We note that the same is generally true for the Normal Cost component of the annual plan cost for funding and financial reporting.
3. The Net Pension Liability (NPL) is equal to the difference between the TPL and the Plan's Fiduciary Net Position. The Plan's Fiduciary Net Position is equal to the fair value of assets and therefore, the NPL measure is very similar to an Unfunded Actuarial Accrued Liability (UAAL) on a market value basis.

Highlights of the valuation

1. As we disclosed in our December 31, 2019 funding valuation report, the 7.25% investment return assumption that the Board approved on December 21, 2017 for determining the liabilities for funding purposes and used for establishing the employer and employee contribution rates has continued to be developed without considering the impact of any future 50/50 excess earnings allocation. This is based on our understanding that Article 5.5 of the Statute, which authorizes the allocation of 50% of excess earnings to the SRBR, does not allow for the use of a different investment return for funding than is used for interest crediting. This would appear in effect to preclude the prefunding of the SRBR through the use of an assumption lower than the market earnings assumption of 7.25%.

   As required by the Actuarial Standard of Practice (ASOP) No. 4 ("Measuring Pension Obligations and Determining Pension Plan Costs or Contributions"), we performed a stochastic model to estimate the impact of the 50% allocation of future excess earnings to the SRBR. The results of our model indicated that the 50/50 allocation of future excess earnings would have about the same impact as an "outflow" (i.e., assets not available to fund the benefits included in the determination of the TPL) that would average approximately 0.60% of assets over time. This approximated outflow was incorporated into our GASB crossover test[1] (Appendix A), along with the additional future employer contributions that would result from those future allocations of excess earnings to the SRBR under ACERA's funding policy.

2. The NPL measured as of December 31, 2019 was determined by rolling forward the TPL for the funded benefits as of December 31, 2018. Similar to last year, we have included in the TPL as of December 31, 2019 the non-OPEB unlimited Actuarial Accrued Liability (AAL) of $198.5 million, which was calculated by rolling forward the total unlimited non-OPEB AAL as of December 31, 2018.

3. We have also continued the practice of adjusting the Plan's Fiduciary Net Position as of December 31, 2019 to include the $40.4 million set aside by the Retirement Board in the SRBR reserve to pay non-vested Supplemental COLA and retired member death benefits[2] as of December 31, 2019. It should be noted that as of December 31, 2019, the deferred investment gain for the entire Plan was $260.7 million. Consequently, after first replenishing the Contingency Reserve from $0 to $89.4 million (1% of total assets), we have added to the Plan's Fiduciary Net Position the proportionate share of one-half of the net deferred investment gain that is commensurate with the size of the non-OPEB SRBR reserve, or $3.8 million. The net effect of the adjustments to the Plan's Fiduciary Net Position as of December 31, 2019 for non-OPEB SRBR benefits was an addition of $44.2 million.

[1] The purpose of the GASB crossover test is to determine if the full expected return (or 7.25% in this case) can be used as the discount rate to determine the TPL and the NPL. That is, if there is no crossover point where the projected benefit payments would exceed the Plan's Fiduciary Net Position, then the full expected return assumption can be used. As detailed later in this report, ACERA does pass the crossover test, which means that the full 7.25% investment rate of return assumption can be used as the discount rate to determine the TPL and the resulting NPL.

[2] We have excluded the liability and the assets associated with the OPEB component of the SRBR reserve account because it is our understanding that those amounts are reportable under GASB 74/75.

Note that the proportionate share of one-half of the net deferred market gain as of December 31, 2019 for the Pension Plan was equal to $85.5 million, and in calculating the Plan's Fiduciary Net Position we have adjusted the Pension Plan's valuation value of assets in the funding valuation to reflect that amount.

4. The $154.3 million difference between the $198.5 million added to the TPL and the net $44.2 million added to the Plan's Fiduciary Net Position as of December 31, 2019 represents the NPL attributable to non-OPEB SRBR benefits.
5. The NPL decreased from $2,764 million as of December 31, 2018 to $2,141 million as of December 31, 2019 primarily as a result of the favorable investment return during calendar year 2019 of about $679 million. Changes in these values during the last two fiscal years ending December 31, 2018 and December 31, 2019 can be found in *Section 2*, *Schedule of Changes in Net Pension Liability* on page 19.
6. The discount rate used to measure the TPL and NPL as of December 31, 2019 and December 31, 2018 was 7.25%, following the same assumptions used by ACERA in the pension funding valuations as of December 31, 2019 and December 31, 2018, respectively. The detailed calculations used in this derivation can be found in *Section 3, Appendix A*. Various other information that is required to be disclosed can be found throughout *Section 2*.

Summary of key valuation results

Measurement Date		December 31, 2019	December 31, 2018
Disclosure elements for fiscal year ending December 31:	• Service cost[(1)]	$215,625,191	$209,890,150
	• Total Pension Liability	9,959,791,606	9,535,148,109
	• Plan's Fiduciary Net Position[(2)]	7,819,098,646	6,771,146,134
	• Net Pension Liability	2,140,692,960	2,764,001,975
Schedule of contributions for fiscal year ending December 31:	• Actuarially determined contributions	$298,526,950	$269,684,809
	• Actual contributions[(3)]	298,526,950	269,684,809
	• Contribution deficiency / (excess)	0	0
Demographic data for plan year ending December 31:[(4)]	• Number of retired members and beneficiaries	10,078	9,783
	• Number of inactive vested members[(5)]	2,821	2,568
	• Number of active members	11,336	11,349
Key assumptions as of December 31:	• Investment rate of return	7.25%	7.25%
	• Inflation rate	3.00%	3.00%
	• Projected salary increases[(6)]	General: 8.30% to 3.90% and Safety: 11.30% to 4.30%	General: 8.30% to 3.90% and Safety: 11.30% to 4.30%

(1) The Service Cost is based on the previous year's valuation, meaning the December 31, 2019 and December 31, 2018 measurement date values are based on the valuations as of December 31, 2018 and December 31, 2017, respectively. Both service costs have been calculated using the assumptions shown in the December 31, 2018 measurement date column, as there had been no changes in the actuarial assumptions between the December 31, 2017 and December 31, 2018 valuations.

(2) For 2019, the Plan's Fiduciary Net Position amount shown ($7,819,098,646) includes the net fair value of assets ($8,789,279,051) less OPEB-related SRBR assets ($970,180,405). The OPEB-related SRBR assets include $877,769,175 in the SRBR-OPEB reserve (after reducing the reserve by the $6,510,876 SRBR implicit subsidy transfer), and $10,415,538 in the 401(h) reserve, plus a proportionate share of one half of the deferred market gains (after adjustment to replenish the balance in the Contingency Reserve) commensurate with the size of the OPEB to total SRBR and 401(h) reserve to valuation and 401(h) reserves ($81,995,692). For 2018, the Plan's Fiduciary Net Position amount shown ($6,771,146,134) includes the net fair value of assets ($7,592,586,569) less OPEB-related SRBR assets ($821,440,435). The OPEB-related SRBR assets include $873,183,258 in the SRBR-OPEB reserve (after reducing the reserve by the $6,939,808 SRBR implicit subsidy transfer), and $9,830,102 in the 401(h) reserve, less a proportionate share of the deferred market losses (after adjustment to include the balance in the Contingency Reserve) commensurate with the size of the OPEB and 401(h) reserves ($61,572,926). Note that amounts may not total properly due to rounding.

(3) Employer contributions are on a net basis after (i) considering the total cash contributions made by the employers, (ii) reducing by the employer contributions made to the 401(h) account, and (iii) increasing by the amount of transfer from the SRBR to the Employers Advance Reserve for employer contributions made to the 401(h) account in (ii).

(4) Data as of December 31, 2018 is used in the measurement of the TPL as of December 31, 2019.

(5) Includes members who left their contributions on deposit even though they have less than five years of service.

(6) Includes inflation at 3.00% plus real across-the-board salary increase of 0.50% plus merit and promotional increases.

Important information about actuarial valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal relies on a number of input items. These include:

Plan of benefits	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report (as well as the plan summary included in our funding valuation report) to confirm that Segal has correctly interpreted the plan of benefits.
Participant data	An actuarial valuation for a plan is based on data provided to the actuary by ACERA. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Assets	The valuation is based on the fair value of assets as of the valuation date, as provided by ACERA. The Association uses an “actuarial value of assets” that differs from fair value to gradually reflect six-month changes in the fair value of assets in determining contribution requirements.
Actuarial assumptions	In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan’s assets or, if there are no assets, a rate of return based on a yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher (or equivalent quality on another rating scale). There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.

Section 1: Actuarial Valuation Summary

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

The valuation is prepared at the request of the Board to assist ACERA in preparing items related to the pension plan in their financial reports. Segal is not responsible for the use or misuse of its report, particularly by any other party.
An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.
If ACERA is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Board should look to their other advisors for expertise in these areas.

As Segal has no discretionary authority with respect to the management or assets of ACERA, it is not a fiduciary in its capacity as actuaries and consultants with respect to ACERA.

Section 2: GASB 67 Information

General information about the pension plan

Plan Description

Plan administration. The Alameda County Employees' Retirement Association (ACERA) was established by the Alameda County Board of Supervisors in 1947. ACERA is administered by the Board of Retirement and governed by the County Employees' Retirement Law of 1937 (California Government Code Section 31450 et. seq.). ACERA is a cost-sharing, multiple employer, defined benefit, public employee retirement system whose main function is to provide service retirement, disability, death, and survivor benefits to the General and Safety members employed by the County of Alameda. ACERA also provides retirement benefits to the employee members of First 5 Alameda County, Housing Authority of the County of Alameda, Alameda Health System, Livermore Area Recreation and Park District (LARPD), and Superior Court of California—County of Alameda, and Alameda County Office of Education.

The management of ACERA is vested with the ACERA Board of Retirement. The Board consists of nine members and two alternates. The County Treasurer is a member of the Board of Retirement by law and is elected by the general public. Four members are appointed by the Board of Supervisors, one of whom may be a County Supervisor. Two active members are elected by the General members; one active member and one alternate are elected by the Safety members; one retired member and one alternate are elected by the retired members. All members of the Board of Retirement serve terms of three years except for the County Treasurer whose term runs concurrent with his term as County Treasurer.

Plan membership. At December 31, 2019, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	10,078
Inactive vested members entitled to but not yet receiving benefits[1]	2,821
Active members	11,336
Total	24,235

(1) Includes terminated members due a refund of member contributions.

Note: Data as of December 31, 2019 is not used in the measurement of the TPL as of December 31, 2019.

Section 2: GASB 67 Information

Benefits provided. ACERA provides service retirement, disability, death, and survivor benefits to eligible employees. The first date of ACERA membership varies by employer, as follows:

- Alameda County, Alameda Health System and Alameda Superior Court Employees: Membership for these employees is effective on the first day of the second pay period following the employee's hire date in an ACERA covered position. This is the date of entry into ACERA membership. As of the date of entry, payroll deductions for retirement contributions begin and service credit for each hour worked is earned. During the short period between the beginning of employment and the ACERA plan date of entry, the employee does not pay contributions or earn service credit. A member may purchase this service credit (referred to as "days prior to entry") any time before retirement without changing the membership, but date of entry does not change.
- Housing Authority and Livermore Area Recreation and Park District Employees: Membership for these employees is effective on the first day of employee's hire in an ACERA covered position. The first date of employment is the date of entry into ACERA membership. As of this date of entry, payroll deductions for retirement contributions begin and service credit for each hour work is earned.
- First 5 Employees: Membership for these employees is effective on the first day of the second pay period following the employee's hire date.
- Office of Education Employees: This is a closed plan with no more active employees (i.e., there is no new ACERA membership. However, the employer does retain retired members and beneficiaries in the Retirement Association as of the December 31, 2019 valuation date).

There are separate retirement benefits for General and Safety members. Safety membership is extended to those involved in active law enforcement, deferred firefighters, or positions that have been designated as Safety by the Board of Retirement (e.g. Juvenile Hall Group Counselor, Probation Officer, etc.). All other employees are classified as General members.

Any new member who becomes a member on or after January 1, 2013 is placed into Tier 4 and is subject to the provisions of California Public Employees' Pension Reform Act of 2013 (PEPRA), California Government Code 7522 et seq. and Assembly Bill (AB) 197.

General members enrolled in Tiers 1, 2, or 3 are eligible to retire once they attain the age of 70 regardless of service or at age 50 with five or more years of retirement service credit and a total of 10 years of qualifying membership. A non-Tier 4 General member with 30 years of service is eligible to retire regardless of age. General members enrolled in Tier 4 are eligible to retire once they have attained the age of 52 and have acquired five years of retirement service credit, or at age 70 regardless of service.

Safety members enrolled in Tiers 1, 2, 2C, or 2D are eligible to retire once they attain the age of 70 regardless of service or at age 50 with five or more years of retirement service credit and a total of 10 years of qualifying membership. A non-Tier 4 Safety member with 20 years of service is eligible to retire regardless of age. Safety members enrolled in Tier 4 are eligible to retire once they have attained the age of 50 and have acquired five years of retirement service credit, or at age 70 regardless of service.

The retirement benefit the member will receive is based upon age at retirement, final average compensation, years of retirement service credit and retirement plan and tier.

The tiers and their basic provisions are listed below:

Tier Name	Service Retirement Governing Code Section	Effective Date	Basic Provisions	Final Average Salary Period	Plan Sponsors
General Tier 1	§31676.12	Various	2.0% at 57; maximum 3% COLA	Highest 1-year	All
General Tier 2	§31676.1	June 30, 1983*	2.0% at 61; maximum 2% COLA	Highest 3-years	All except LARPD
General Tier 3	§31676.18	October 1, 2008	2.5% at 55; maximum 3% COLA	Highest 1-year	LARPD
General Tier 4	§7522.20(a)	January 1, 2013	2.5% at 67; maximum 2% COLA	Highest 3-years	All
Safety Tier 1	§31664.1	Various	3.0% at 50; maximum 3% COLA	Highest 1-year	County
Safety Tier 2	§31664.1	June 30, 1983	3.0% at 50; maximum 2% COLA	Highest 3-years	County
Safety Tier 2C	§31664	October 17, 2010	2.6% at 55; maximum 2% COLA	Highest 3-years	County
Safety Tier 2D	§31664.2	October 17, 2010	3.0% at 55; maximum 2% COLA	Highest 3-years	County
Safety Tier 4	§7522.25(d)	January 1, 2013	2.7% at 57; maximum 2% COLA	Highest 3-years	County

** For Housing Authority members, the effective date is September 30, 2011.*

For members enrolled in Tiers 1, 2, 2C, 2D, or 3, the maximum monthly retirement allowance is 100% of final compensation. There is no maximum for members enrolled in Tier 4.

The member may elect an unmodified retirement allowance, or choose an optional retirement allowance. The unmodified retirement allowance provides the highest monthly benefit and a 60% continuance to an eligible surviving spouse or domestic partner. An eligible surviving spouse or domestic partner is one married to or registered with the member one year prior to the effective retirement date. There are four optional retirement allowances the member may choose. Each of the optional retirement allowances requires a reduction in the unmodified retirement allowance in order to allow the member the ability to provide certain benefits to a surviving spouse, domestic partner, or named beneficiary having an insurable interest in the life of the member.

Section 2: GASB 67 Information

ACERA provides an annual cost-of-living benefit to all retirees. The cost-of-living adjustment, based upon the Consumer Price Index for the San Francisco-Oakland-Hayward Area (with 1982-84 as the base period), is capped at 3.0% for General Tiers 1 and 3 and Safety Tier 1, and at 2.0% for General Tiers 2 and 4 and Safety Tiers 2, 2C, 2D, and 4.

The County of Alameda and the other participating agencies contribute to the retirement plan based upon actuarially determined contribution rates adopted by the Board of Retirement. Employer contribution rates are adopted annually based upon recommendations received from ACERA's actuary after the completion of the annual actuarial valuation. The average employer contribution rate as of December 31, 2019 for 2019 (based on the December 31, 2017 valuation for the second half of 2018/2019 and on the December 31, 2018 valuation for the first half of 2019/2020) was 27.60% of compensation.

Members are required to make contributions to ACERA regardless of the retirement plan or tier in which they are included. The average member contribution rate as of December 31, 2019 for 2019 (based on the December 31, 2017 valuation for the second half of 2018/2019 and on the December 31, 2018 valuation for the first half of 2019/2020) was 9.53% of compensation.

Net pension liability

Measurement Date	December 31, 2019	December 31, 2018
Components of the Net Pension Liability		
Total Pension Liability	$9,959,791,606	$9,535,148,109
Plan's Fiduciary Net Position	(7,819,098,646)	(6,771,146,134)
Net Pension Liability	$2,140,692,960	$2,764,001,975
Plan's Fiduciary Net Position as a percentage of the Total Pension Liability	78.51%	71.01%

The Net Pension Liability for the plan was measured as of December 31, 2019 and 2018. Plan's Fiduciary Net Position (plan assets) was valued as of the measurement dates and the Total Pension Liability was determined based upon rolling forward the TPL from actuarial valuations as of December 31, 2018 and 2017, respectively.

Plan provisions. The plan provisions used in the measurement of the NPL as of December 31, 2019 and 2018 are the same as those used in ACERA's funding valuations as of December 31, 2018 and 2017, respectively.

Actuarial assumptions. The TPL as of December 31, 2019 that was measured by an actuarial valuation as of December 31, 2018 used the following actuarial assumptions, which were based on the results of an experience study for the period December 1, 2013 through November 30, 2016, applied to all periods included in the measurement. They are the same assumptions used in the December 31, 2019 funding valuation for ACERA.

Inflation:	3.00%
Salary increases:	General: 8.30% to 3.90% and Safety: 11.30% to 4.30%, vary by service, including inflation
Investment rate of return:	7.25%, net of pension plan investment expense, including inflation
Other assumptions:	See analysis of actuarial experience during the period December 1, 2013 through November 30, 2016

Section 2: GASB 67 Information

The TPL as of December 31, 2018, that was measured by an actuarial valuation as of December 31, 2017, used the following actuarial assumptions, which were based on the results of an experience study for the period December 1, 2013 through November 30, 2016, applied to all periods included in the measurement. They are the same assumptions used in the December 31, 2018 funding valuation for ACERA.

Inflation:	3.00%
Salary increases:	General: 8.30% to 3.90% and Safety: 11.30% to 4.30%, vary by service, including inflation
Investment rate of return:	7.25%, net of pension plan investment expense, including inflation
Other assumptions:	See analysis of actuarial experience during the period December 1, 2013 through November 30, 2016

Determination of discount rate and investment rates of return

The long-term expected rate of return on pension plan investments[3] was determined in 2017 using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation (approved by the Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before investment expenses are shown in the following table. This information was used in the derivation of the long-term expected investment rate of return assumption for the December 31, 2019 actuarial valuation. This information will be subject to change every three years based on the results of an actuarial experience study.

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return
Domestic Large Cap Equity	22.40%	5.75%
Domestic Small Cap Equity	5.60%	6.37%
Developed International Equity	19.50%	6.89%
Emerging Markets Equity	6.50%	9.54%
U.S. Core Fixed Income	11.25%	1.03%
High Yield Bonds	1.50%	3.99%
International Bonds	2.25%	0.19%
TIPS	2.00%	0.98%
Real Estate	8.00%	4.47%
Commodities	3.00%	3.78%
Hedge Funds	9.00%	4.30%
Private Equity	9.00%	7.60%
Total	100.00%	

[3] Note that the investment return assumption for funding purposes was developed net of both investment and administrative expenses; however, the same investment return assumption was used for financial reporting purposes, and it was considered gross of administrative expenses for financial reporting purposes. (This resulted in an increase in the margin for adverse deviation when using that investment return assumption for financial reporting.)

Section 2: GASB 67 Information

Discount rate. The discount rate used to measure the Total Pension Liability (TPL) was 7.25% as of December 31, 2019 and December 31, 2018. Our understanding is that Article 5.5 of the Statute, which authorizes the allocation of 50% of excess earnings to the SRBR, does not allow for the use of a different investment return assumption for funding than is used for interest crediting. In order to reflect the provisions of Article 5.5, we have treated future allocations to the SRBR as an additional outflow against the Plan's Fiduciary Net Position in the GASB crossover test, as mentioned earlier in Section 1. Again, we are estimating that the additional outflow would average approximately 0.60% of assets over time, based on the results of our stochastic modeling of the 50% allocation of future excess earnings to the SRBR.

The projection of cash flows used to determine the discount rate assumes plan member contributions will be made at the current contribution rates and that employer contributions will be made at rates equal to the actuarially determined contribution rates[4] plus additional future contributions that would follow from the future allocation of excess earnings to the SRBR. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the pension plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability as of both December 31, 2019 and December 31, 2018.

[4] For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included.

Discount rate sensitivity

Sensitivity of the Net Pension Liability to changes in the discount rate. The following presents the Net Pension Liability of ACERA as of December 31, 2019, calculated using the discount rate of 7.25%, as well as what ACERA's NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.25%) or 1-percentage-point higher (8.25%) than the current rate.

	1% Decrease (6.25%)	Current Discount Rate (7.25%)	1% Increase (8.25%)
Net Pension Liability as of December 31, 2019	$3,433,615,732	$2,140,692,960	$1,075,688,763

The following presents the Net Pension Liability of ACERA as of December 31, 2018, calculated using the discount rate of 7.25%, as well as what ACERA's NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.25%) or 1-percentage-point higher (8.25%) than the current rate.

	1% Decrease (6.25%)	Current Discount Rate (7.25%)	1% Increase (8.25%)
Net Pension Liability as of December 31, 2018	$4,006,839,721	$2,764,001,975	$1,739,578,825

Schedule of changes in Net Pension Liability – Last two fiscal years

Measurement Date	December 31, 2019	December 31, 2018
Total Pension Liability		
• Service cost[(1)]	$215,625,191	$209,890,150
• Interest	688,654,389	659,591,792
• Change of benefit terms	0	0
• Differences between expected and actual experience	24,548,056	13,710,084
• Changes of assumptions	0	0
• Benefit payments, including refunds of member contributions	(504,184,139)	(471,943,181)
Net change in Total Pension Liability	**$424,643,497**	**$411,248,845**
Total Pension Liability – beginning	**9,535,148,109**	**9,123,899,264**
Total Pension Liability – ending	**$9,959,791,606**	**$9,535,148,109**
Plan's Fiduciary Net Position		
• Contributions – employer[(2)]	$298,526,950	$269,684,809
• Contributions – member	103,117,022	94,735,673
• Net investment income	1,165,766,104	(216,308,362)
• Benefit payments, including refunds of member contributions	(504,184,139)	(471,943,181)
• Administrative expense	(15,273,425)	(15,246,130)
• Other	0	0
Net change in Plan's Fiduciary Net Position	**$1,047,952,512**	**$(339,077,191)**
Plan's Fiduciary Net Position[(3)] – beginning	**6,771,146,134**	**7,110,223,325**
Plan's Fiduciary Net Position[(3)] – ending	**$7,819,098,646**	**$6,771,146,134**
Net Pension Liability – ending	**$2,140,692,960**	**$2,764,001,975**
Plan's Fiduciary Net Position as a percentage of the Total Pension Liability	**78.51%**	**71.01%**
Covered payroll[(4)]	**$1,081,586,887**	**$1,046,033,851**
Plan Net Pension Liability as percentage of covered payroll	**197.92%**	**264.24%**

(1) The Service Cost is based on the previous year's valuation, meaning the December 31, 2019 and December 31, 2018 measurement date values are based on the valuations as of December 31, 2018 and December 31, 2017, respectively. Both service costs have been calculated using the assumptions shown in the December 31, 2018 measurement date column, as there had been no changes in the actuarial assumptions between the December 31, 2017 and December 31, 2018 valuations.

(2) Employer contributions are on a net basis after (i) considering the total cash contributions made by the employers, (ii) reducing by the employer contributions made to the 401(h) account, and (iii) increasing by the amount of transfer from the SRBR to the Employers Advance Reserve for employer contributions made to the 401(h) account in (ii).

(3) See footnote (2) on page 7 for a discussion on the development of the 2019 "Plan's Fiduciary Net Position – beginning" amount of $6,771,146,134 and the 2019 "Plan's Fiduciary Net Position – ending" amount of $7,819,098,646.

(4) Covered payroll represents Compensation Earnable and Pensionable Compensation and is defined as the payroll on which contributions to the pension plan are based.

Schedule of contributions – Last ten fiscal years

Year Ended December 31	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency / (Excess)	Covered Payroll[1]	Contributions as a Percentage of Covered Payroll
2010	$147,543,301	$147,543,301	$0	$839,617,361	17.57%
2011	162,879,221	162,879,221	0	837,482,162	19.45%
2012	179,648,812	179,648,812	0	845,932,592	21.24%
2013	191,180,146	191,180,146	0	853,349,657	22.40%
2014	213,254,775	213,254,775	0	886,924,862	24.04%
2015	224,607,104	224,607,104	0	945,858,017[2]	23.75%
2016	241,728,451	241,728,451	0	947,567,631	25.51%
2017	247,063,550	247,063,550	0	995,178,209	24.83%
2018	269,684,809	269,684,809	0	1,046,033,851	25.78%
2019	298,526,950	298,526,950	0	1,081,586,887	27.60%

(1) For years ended December 31, 2017 and later, covered payroll represents Compensation Earnable and Pensionable Compensation and is defined as the payroll on which contributions to the pension plan are based. For the years ended before December 31, 2017, covered payroll was referred to as covered-employee payroll and only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits was included.

(2) ACERA indicated that this amount is based on 27 pay periods for 2015.

See accompanying notes to this schedule on next page.

Notes to Schedule:

Methods and assumptions used to establish "actuarially determined contribution" rates:

Valuation date:	Actuarially determined contribution rates for the first six months of calendar year 2019 (or the second half of fiscal year 2018/2019) are calculated based on the December 31, 2017 valuation. Actuarially determined contribution rates for the last six months of calendar year 2019 (or the first half of fiscal year 2019/2020) are calculated based on the December 31, 2018 valuation.
Actuarial cost method:	Entry Age Actuarial Cost Method
Amortization method:	Level percent of payroll (3.50% payroll growth assumed in the December 31, 2018 valuation and 3.50% payroll growth assumed in the December 31, 2017 valuation)
Remaining amortization period:	**December 31, 2017 valuation** Prior to January 1, 2012, the total UAAL was amortized on a 30-year decreasing period, with 21 years remaining as of December 31, 2011 (and 15 years remaining as of December 31, 2017). On or after January 1, 2012, any new UAAL resulting from plan amendments are amortized over separate decreasing 15-year periods; early retirement incentive programs (ERIPs) are amortized over separate decreasing 5-year periods; assumption and method changes are amortized over separate decreasing 20-year periods; and experience gains/losses are also amortized over separate decreasing 20-year periods. **December 31, 2018 valuation** Prior to January 1, 2012, the total UAAL was amortized on a 30-year decreasing period, with 21 years remaining as of December 31, 2011 (and 14 years remaining as of December 31, 2018). On or after January 1, 2012, any new UAAL resulting from plan amendments are amortized over separate decreasing 15-year periods; early retirement incentive programs (ERIPs) are amortized over separate decreasing 5-year periods; assumption and method changes are amortized over separate decreasing 20-year periods; and experience gains/losses are also amortized over separate decreasing 20-year periods.
Asset valuation method:	The actuarial value of assets is determined by recognizing any difference between the actual and the expected market return over 10 six-month interest crediting periods. The actuarial value of assets is further adjusted, if necessary, to be within 40% of the market value of assets. The valuation value of assets is the actuarial value of assets reduced by the value of the non-valuation reserves.

Actuarial assumptions:

Valuation Date:	December 31, 2017 Valuation	December 31, 2018 Valuation
Investment rate of return:	7.25%, net of pension plan investment expense, including inflation	7.25%, net of pension plan investment expense, including inflation
Inflation rate:	3.00%	3.00%
Real across-the-board salary increase:	0.50%	0.50%
Projected salary increases:	General: 8.30% to 3.90% and Safety: 11.30% to 4.30%, vary by service, including inflation	General: 8.30% to 3.90% and Safety: 11.30% to 4.30%, vary by service, including inflation
Cost of living adjustments:	3.00% of retirement income for General Tiers 1 and 3, and Safety Tier 1; 2.00% for General Tiers 2 and 4, and Safety Tiers 2, 2C, 2D, and 4	3.00% of retirement income for General Tiers 1 and 3, and Safety Tier 1; 2.00% for General Tiers 2 and 4, and Safety Tiers 2, 2C, 2D, and 4
Other assumptions:	Same as those used in the December 31, 2017 funding actuarial valuation	Same as those used in the December 31, 2018 funding actuarial valuation

Appendix A: Projection of Pension Plan's Fiduciary Net Position ($ in millions) for use in the Calculation of Discount Rate as of December 31, 2019

Year Beginning January 1,	Projected Beginning Plan Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending Plan Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
2019	6,771	402	504	15	1,076	7,730
2020	7,730 **	391	581	18	550	8,071
2021	8,071	395	609	19	574	8,413
2022	8,413	397	638	19	597	8,749
2023	8,749	402	668	20	621	9,083
2024	9,083	405	698	21	644	9,412
2025	9,412	411	729	22	666	9,739
2026	9,739	418	759	22	689	10,064
2027	10,064	426	790	23	712	10,389
2043	11,818	226	1,155	27	816	11,678
2044	11,678	231	1,164	27	806	11,524
2045	11,524	230	1,171	27	794	11,351
2046	11,351	229	1,177	26	782	11,158
2047	11,158	227	1,181	26	767	10,945
2089	237	35	102	1	14	184
2090	184	32	86	0 *	11	140
2091	140	28	72	0 *	8	104
2092	104	25	59	0 *	6	76
2093	76	22	48	0 *	4	54
2094	54	20	39	0 *	3	37
2095	37	17	31	0 *	2	25
2096	25	15	25	0 *	1	16
2097	16	13	19	0 *	1	10
2098	10	11	15	0 *	1	7
2099	7	9	12	0 *	0 *	4
2109	2	1	1	0 *	0 *	1
2110	1	1	1	0 *	0 *	1
2111	1	1	1	0 *	0 *	1
2112	1	0 *	1	0 *	0 *	0
2113	0 *	0 *	0 *	0 *	0 *	0
2133	0 *	0 *	0 *	0 *	0 *	0
2134	0 *	0 *	0 *	0 *	0 *	0
2134	Discounted Value: 0 *,**					

* Less than $1M, when rounded.

** Excludes $89.4 million required to bring the Contingency Reserve to 1% of total assets as of December 31, 2019. See Note 2.

Notes

1. Amounts may not total exactly due to rounding.

2. Amounts shown in the year beginning January 1, 2019 row are actual amounts, based on the financial statements provided by ACERA. The Plan Fiduciary Net Position as of December 31, 2019 differs from the amount used for other GASB 67 purposes in that it excludes $89,388,911 of the Gross Market Stabilization Reserve expected to be used to bring the Contingency Reserve up to 1% of total assets. These assets are not used in developing the projected total contributions in column (b).

3. Years 2028-2042, 2048-2088, 2100-2108, and 2114-2132 have been omitted from this table.

4. Column (a): Except for the "discounted value" shown for 2134, all of the projected beginning plan fiduciary net position amounts shown have not been adjusted for the time value of money.

5. Column (b): Projected total contributions include employee and employer normal cost contributions based on closed group projections (based on covered active members as of November 30, 2018); plus employer contributions to the unfunded actuarial accrued liability; plus employer contributions to fund each year's annual administrative expenses as well as future allocations of excess earnings to the SRBR under ACERA's funding policy, both reflecting a 20-year amortization schedule. Contributions are assumed to occur halfway through the year, on average.

6. Column (c): Projected benefit payments have been determined in accordance with paragraph 39 of GASB Statement No. 67, and are based on the closed group of active, inactive vested, retired members, and beneficiaries as of November 30, 2018. The projected benefit payments reflect the cost of living increase assumption of 3.00% per annum for Tiers 1 and 3, and 2.00% per annum for Tiers 2 and 4. The projected benefit payments include the Non-OPEB Supplemental Retiree Benefits Reserve (SRBR) benefits to the extent the current Non-OPEB SRBR supports those benefits. Benefit payments are assumed to occur halfway through the year, on average. In accordance with paragraph 31.b.(1)(e) of GASB Statement No. 67, the long-term expected rate of return on Plan investments of 7.25% per annum was applied to all periods of projected benefit payments to determine the discount rate.

   In addition, the projected benefit payments in column (c) include an amount equal to 0.60% of the beginning-of-year market value to reflect the approximated outflow of future allocations to the SRBR. This outflow has an estimated present value of $0.84 billion. This present value of outflow is expected to be sufficient to pay for the remaining present value of the non-OPEB SRBR benefits of $0.19 billion as well as the remaining present value of the OPEB SRBR benefits of $0.34 billion.

7. Column (d): Projected administrative expenses are calculated as approximately 0.23% of the beginning plan fiduciary net position amount. The 0.23% portion was based on the actual fiscal year 2019 administrative expenses as a percentage of the beginning plan fiduciary net position amount as of January 1, 2019. Administrative expenses are assumed to occur halfway through the year, on average.

8. Column (e): Projected investment earnings are based on the assumed investment rate of return of 7.25% per annum.

9. As illustrated in this Exhibit, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected "cross-over date" when projected benefits are not covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.25% per annum was applied to all periods of projected benefit payments to determine the total pension liability as of December 31, 2019 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.

Appendix B: Definition of Terms

Definitions of certain terms as they are used in Statement 67. The terms may have different meanings in other contexts.

Actuarial Present Value of Projected Benefit Payments:	Projected benefit payments discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.
Actuarial Valuation:	The determination, as of a point in time (the actuarial valuation date), of the service cost, Total Pension Liability, and related actuarial present value of projected benefit payments for pensions performed in conformity with Actuarial Standards of Practice unless otherwise specified by the GASB.
Actuarial Valuation Date:	The date as of which an actuarial valuation is performed.
Actuarially Determined Contribution:	A target or recommended contribution to a defined benefit pension plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.
Ad Hoc Cost-of-Living Adjustments (Ad Hoc COLAs):	Cost-of-living adjustments that require a decision to grant by the authority responsible for making such decisions.
Ad Hoc Postemployment Benefit Changes:	Postemployment benefit changes that require a decision to grant by the authority responsible for making such decisions.
Automatic Cost-of-Living Adjustments (Automatic COLAs):	Cost-of-living adjustments that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).
Automatic Postemployment Benefit Changes:	Postemployment benefit changes that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).
Cost-of-Living Adjustments:	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (Cost-Sharing Pension Plan):	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.
Covered Payroll:	Payroll on which contributions to a pension plan are based.
Defined Benefit Pension Plans:	Pension plans that are used to provide defined benefit pensions.

Defined Benefit Pensions:	Pensions for which the income or other benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The pensions may be stated as a specified dollar amount or as an amount that is calculated based on one or more factors such as age, years of service, and compensation. (A pension that does not meet the criteria of a defined contribution pension is classified as a defined benefit pension for purposes of Statement 67.)
Defined Contribution Pension Plans:	Pension plans that are used to provide defined contribution pensions.
Defined Contribution Pensions:	Pensions having terms that (1) provide an individual account for each employee; (2) define the contributions that an employer is required to make (or the credits that it is required to provide) to an active employee's account for periods in which that employee renders service; and (3) provide that the pensions an employee will receive will depend only on the contributions (or credits) to the employee's account, actual earnings on investments of those contributions (or credits), and the effects of forfeitures of contributions (or credits) made for other employees, as well as pension plan administrative costs, that are allocated to the employee's account.
Discount Rate:	The single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the following: 1. The actuarial present value of benefit payments projected to be made in future periods in which (a) the amount of the pension Plan's Fiduciary Net Position is projected (under the requirements of Statement 67) to be greater than the benefit payments that are projected to be made in that period and (b) pension plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on pension plan investments. 2. The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.
Entry Age Actuarial Cost Method:	A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is called the actuarial accrued liability.
Inactive Employees:	Terminated individuals that have accumulated benefits but are not yet receiving them, and retirees or their beneficiaries currently receiving benefits.
Multiple-Employer Defined Benefit Pension Plan:	A defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
Net Pension Liability (NPL):	The liability of employers and nonemployer contributing entities to employees for benefits provided through a defined benefit pension plan.

Other Postemployment Benefits:	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits, regardless of the manner in which they are provided. Other postemployment benefits do not include termination benefits.
Pension Plans:	Arrangements through which pensions are determined, assets dedicated for pensions are accumulated and managed and benefits are paid as they come due.
Pensions:	Retirement income and, if provided through a pension plan, postemployment benefits other than retirement income (such as death benefits, life insurance, and disability benefits). Pensions do not include postemployment healthcare benefits and termination benefits.
Plan Members:	Individuals that are covered under the terms of a pension plan. Plan members generally include (1) employees in active service (active plan members) and (2) terminated employees who have accumulated benefits but are not yet receiving them and retirees or their beneficiaries currently receiving benefits (inactive plan members).
Postemployment	The period after employment.
Postemployment Benefit Changes:	Adjustments to the pension of an inactive employee.
Postemployment Healthcare Benefits:	Medical, dental, vision, and other health-related benefits paid subsequent to the termination of employment.
Projected Benefit Payments:	All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and their expected future service.
Public Employee Retirement System:	A special-purpose government that administers one or more pension plans; also may administer other types of employee benefit plans, including postemployment healthcare plans and deferred compensation plans.
Real Rate of Return:	The rate of return on an investment after adjustment to eliminate inflation.
Service Costs:	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
Single-Employer Defined Benefit Pension Plan (Single-Employer Pension Plan):	A defined benefit pension plan that is used to provide pensions to employees of only one employer.
Termination Benefits:	Inducements offered by employers to active employees to hasten the termination of services, or payments made in consequence of the early termination of services. Termination benefits include early-retirement incentives, severance benefits, and other termination-related benefits.
Total Pension Liability (TPL):	The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of Statement 67.

Alameda County Employees' Retirement Association

Governmental Accounting Standards Board (GASB) Statement 74 Actuarial Valuation of the Benefits Provided by the Supplemental Retiree Benefits Reserve Other Postemployment Benefits (OPEB) as of December 31, 2019

This report has been prepared at the request of the Board of Retirement to assist in administering the Fund. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Retirement and may only be provided to other parties in its entirety. The measurements shown in this actuarial valuation may not be applicable for other purposes.

Segal

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April 7, 2020

Board of Retirement
Alameda County Employees' Retirement Association
475 14th Street, Suite 1000
Oakland, CA 94612

Dear Board Members:

We are pleased to submit this Governmental Accounting Standards Board (GASB) Statement 74 Actuarial Valuation as of December 31, 2019. It contains various information that will need to be disclosed in order to comply with GASB 74.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Association. The census and financial information on which our calculations were based was prepared by ACERA. That assistance is gratefully acknowledged.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the health care cost, economic or demographic assumptions; changes in health care trend, and changes in plan provisions or applicable law.

The actuarial calculations were completed under the supervision of Thomas Bergman, ASA, MAAA, Enrolled Actuary and Andy Yeung ASA, MAAA, FCA, Enrolled Actuary. The health care trend and other related medical assumptions have been reviewed by Paul Sadro, ASA, MAAA. We are members of the American Academy of Actuaries and we collectively meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and expectations for the Association.

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

Sincerely,

Segal

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

Thomas Bergman, ASA, MAAA, EA
Retiree Health Actuary

TXB/hy

SECTION 1

VALUATION SUMMARY

SECTION 2

GASB 74 INFORMATION

Purpose

This report has been prepared by Segal to present certain disclosure information required for "Other Postemployment Benefits (OPEB)" plans by Statement No. 74 of the Governmental Accounting Standards Board as of December 31, 2019. This valuation is based on:

- The benefit provisions of the OPEB Plan, as administered by the Board of Retirement;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of November 30, 2018, provided by ACERA;
- The assets of the Plan as of December 31, 2019, provided by ACERA;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, and health care trends, etc.

General Observations on GASB 74 Actuarial Valuation

The following points should be considered when reviewing this GASB 74 report:

- The Governmental Accounting Standards Board (GASB) rules only define OPEB liability and expense for financial reporting purposes, and do not apply to contribution amounts for OPEB funding purposes. Employers and plans still develop and adopt funding policies, if applicable, under current practices.
- When measuring OPEB liability, GASB uses the same actuarial cost method (Entry Age) and, for benefits that are being fully funded on an actuarial basis, the same expected return on Plan assets as used for funding.[1] This means that the Total OPEB Liability (TOL) measure for financial reporting shown in this report is determined on the same basis as the Actuarial Accrued Liability (AAL) measure for funding.
- The Net OPEB Liability (NOL) is equal to the difference between the TOL and the Plan's Fiduciary Net Position. The Plan's Fiduciary Net Position is equal to the fair value of assets. The NOL reflects all investment gains and losses as of the measurement date.

[1] See discussions on next page regarding source of funding for payment of OPEB SRBR benefits not covered by current OPEB Plan's Fiduciary Net Position in the SRBR.

Significant Issues in Valuation Year

The following key findings were the result of this actuarial valuation:

- The NOL decreased from $232.9 million as of December 31, 2018 to $112.9 million as of December 31, 2019 primarily as a result of favorable investment results during calendar year 2019 of about $135.7 million (for an actual market return of 24.2%[2] versus 7.25% assumed in the valuation), offset somewhat by updating the health trend assumptions[3] (which on a net basis increase the NOL by about $12.5 million). Changes in these values during the last two fiscal years ending December 31, 2019 and 2018 can be found in Exhibit 3.
- As we disclosed in our December 31, 2019 pension funding valuation report, the 7.25% investment return assumption that the Board approved on December 21, 2017 for determining the liabilities for funding purposes and used for establishing the employer and employee contribution rates has continued to be developed without considering the impact of any future 50/50 excess earnings allocation. This is based on our understanding that Article 5.5 of the Statute, which authorizes the allocation of 50% of excess earnings to the SRBR, does not allow for the use of a different investment return for funding than is used for interest crediting. This would appear in effect to preclude the prefunding of the SRBR through the use of an assumption lower than the market earnings assumption of 7.25%.

  As required by the Actuarial Standard of Practice (ASOP) No. 4 ("Measuring Pension Obligations and Determining Pension Plan Costs or Contributions"), we performed a stochastic model to estimate the impact of the 50% allocation of future excess earnings to the SRBR. The results of our model indicated that the 50/50 allocation of future excess earnings would have about the same impact as an "outflow" (i.e., assets not available to fund the benefits included in the determination of the Total Pension Liability) that would average approximately 0.60% of assets over time. This approximated outflow was incorporated into our GASB crossover test for the pension benefits (reference: Exhibit 5 of our GASB 67 report as of December 31, 2019), along with the additional future employer contributions that would result from those future allocations of excess earnings to the SRBR under ACERA's funding policy.

  Furthermore, note (6) provided in Exhibit 5 of the GASB 67 report indicates that the present value of outflows from the 0.60% of assets over time is expected to be higher than the present values of the remaining OPEB and non-OPEB SRBR

[2] Note that the 24.2% market value investment return mentioned above for the SRBR is higher than the 17.9% investment return included in the December 31, 2019 Pension Funding Valuation for Association's entire portfolio. The higher return for the SRBR is primarily a result of including the 50% of future excess earnings allocated to the SRBR for the deferred investment gains as of December 31, 2019.

[3] In particular, there is an increase in the long term annual trend from 4.00% to 4.50% for Medicare Part B which increased the NOL by $17.1 million. Also, the repeal of the Health Insurance Tax (HIT) effective in 2021 reduced the 2020 non-Medicare and Medicare trends which decreased the NOL by $4.6 million.

benefits that could be paid after the exhaustion of assets currently available in the SRBR.

Therefore, in developing the crossover test for the OPEB SRBR in Exhibit 5 of this report, we have only included the projected benefits so that on a present value basis they are equal to the OPEB assets currently available in the SRBR as the remaining OPEB SRBR benefits would be paid from future excess earnings.

- The TOL as of December 31, 2019 was determined by rolling forward the liability results used in determining the sufficiency of the SRBR to provide medical and dental subsidy benefits as of December 31, 2018. That TOL has been adjusted to reflect the health care trend assumptions recommended for the upcoming sufficiency study for the SRBR as of December 31, 2019 (reference: our DRAFT letter dated March 12, 2020).
- We have also continued the practice of adjusting the Plan's Fiduciary Net Position as of December 31, 2019 to include the $888.2 million set aside by the Retirement Board in the SRBR reserve to pay OPEB benefits as of December 31, 2019. This includes $877.8 million in the OPEB-related SRBR reserve (after reducing the reserve by the $6.5 million SRBR implicit subsidy transfer), and $10.4 million in the 401(h) reserve. It should be noted that as of December 31, 2019, the deferred investment gain for the entire Plan was $260.7 million. Consequently, after first replenishing the Contingency Reserve from $0 to $89.4 million (1% of total assets), we have added to the Plan's Fiduciary Net Position the proportionate share of one-half of the net deferred investment gain that is commensurate with the size of the OPEB SRBR reserve to total SRBR and 401(h) reserve to valuation and 401(h) reserve, or $82.0 million (which will cause the future interest crediting rate to the SRBR reserve to be raised above 7.25% per year).

Summary of Key Valuation Results

	2019	2018
Disclosure elements for fiscal year ending December 31:		
Service cost[1]	$27,678,194	$31,577,168
Total OPEB Liability	1,083,114,679	1,054,337,014
Plan's Fiduciary Net Position[2]	970,180,405	821,440,435
Net OPEB Liability	112,934,274	232,896,579
Schedule of contributions for fiscal year ending December 31:		
Actuarially determined contributions	N/A	N/A
Actual contributions[3]	N/A	N/A
Contribution deficiency / (excess)	0	0
Demographic data for plan year ending December 31[4]:		
Number of retired members and beneficiaries receiving medical benefits	TBD	6,385
Number of retired members and beneficiaries receiving dental and vision benefits	TBD	7,519
Number of vested terminated members	TBD	410
Number of active members	TBD	11,349
Key assumptions as of December 31:		
Discount rate	7.25%	7.25%
Health care premium trend rates[5]		
Non-Medicare medical plan	Graded from 6.75% to ultimate 4.50% over 9 years	Graded from 7.00% to ultimate 4.50% over 10 years
Medicare medical plan	Graded from 6.25% to ultimate 4.50% over 7 years	Graded from 6.50% to ultimate 4.50% over 8 years
Dental/Vision	4.00%	4.00%
Medicare Part B	4.50%	4.00%

[1] *The service cost is based on the previous year's valuation, meaning the 2019 and 2018 values are based on the valuations as of December 31, 2018 and December 31, 2017 measurements, respectively. The 2019 service cost has been calculated using the assumptions shown in the 2018 column, and the 2018 service cost has been calculated using the following assumptions:*

Key assumptions as of December 31, 2017:	
Discount rate	*7.25%*
Health care premium trend rates	
Non-Medicare medical plan	*Graded from 7.00% to ultimate 4.50% over 10 years*
Medicare medical plan	*Graded from 6.50% to ultimate 4.50% over 8 years*
Dental/Vision and Medicare Part B	*4.50%*

[2] For 2019, the Plan's Fiduciary Net Position shown ($970,180,405) includes the OPEB-related SRBR reserve of $877,769,175 (after reducing the reserve by the SRBR implicit subsidy transfer of $6,510,876) and 401(h) reserve ($10,415,538), plus the proportionate share of one-half of the net deferred investment gain that is commensurate with the size of the OPEB SRBR reserve to total SRBR and 401(h) reserve to valuation and 401(h) reserve ($81,995,692), after first replenishing the Contingency Reserve from $0 to $89.4 million (1% of total assets). For 2018, the Plan's Fiduciary Net Position amount shown ($821,440,435) includes the SRBR and 401(h) account ($889,953,169), less the SRBR implicit subsidy transfer ($6,939,808), less a proportionate share of the deferred market losses (after adjustment to include the balance in the Contingency Reserve) commensurate with the size of the OPEB reserves ($61,572,926). Note that amounts may not total properly due to rounding.

[3] Employer contributions are on a net basis. Benefits are funded by employer contributions to the 401(h) account and similar amounts are transferred from the SRBR to the Employers Advance Reserve to backfill the employer contributions that would have otherwise been made to the Retirement Plan.

[4] The December 31, 2018 data is used in the measurement of the TOL as of December 31, 2019. The following data as of December 31, 2017 was used in the measurement of the TOL as of December 31, 2018:

Number of retired members and beneficiaries receiving medical benefits	*6,225*
Number of retired members and beneficiaries receiving dental and vision benefits	*7,270*
Number of vested terminated members	*381*
Number of active members	*11,323*

The demographic data as of December 31, 2019 will be used in the sufficiency study for the SRBR as of December 31, 2019 as well as in the next year's GASB 74 valuation when we roll forward the liability from December 31, 2019 to December 31, 2020.

[5] The trends for 2020 as of the December 31, 2019 measurement are before reflecting the recent repeal of the Health Insurance Tax (HIT) taking effect in 2021 that would further reduce 1.20% from non-Medicare plan trend of 6.75% and 0.90% from Medicare plan trend of 6.50%. The trends for 2019 as of the December 31, 2018 measurement are before reflecting a one-time adjustment to reflect the estimated impact of the reinstatement of the HIT. The weighted average increase amongst all carriers is approximately 1.20% for Non-Medicare plans and 0.90% for Medicare plans.

Important Information about Actuarial Valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a postretirement health plan. It is an estimated forecast – the actual cost of the plan will be determined by the benefits and expenses paid, not by the actuarial valuation.

In order to prepare an actuarial valuation, Segal relies on a number of input items. These include:

- **Plan of benefits** Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report to confirm that Segal has correctly interpreted the plan of benefits.
- **Participant data** An actuarial valuation for a plan is based on data provided to the actuary by ACERA. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
- **Assets** This valuation is based on the fair value of assets as of the valuation date, as provided by ACERA. The Association uses an actuarial value of assets that differs from fair value of assets to gradually reflect six-month changes in the fair value of assets in the SRBR sufficiency valuation.
- **Actuarial assumptions** In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, termination, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to health care trends. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan's assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The valuation is prepared at the request of the Board to assist sponsors of the Fund in preparing items related to the OPEB SRBR plan in their financial reports. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.
- If ACERA is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. ACERA should look to their other advisors for expertise in these areas.

As Segal has no discretionary authority with respect to the management or assets of ACERA, it is not a fiduciary in its capacity as actuaries and consultants with respect to ACERA.

EXHIBIT 1

General Information – "Financial Statements", Note Disclosures and Required Supplementary Information for a Cost-Sharing OPEB Plan

Plan Description

Plan administration. The Alameda County Employees' Retirement Association (ACERA) was established by the Alameda County Board of Supervisors in 1947. ACERA is administered by the Board of Retirement and governed by the County Employees' Retirement Law of 1937 (California Government Code Section 31450 et. seq.). ACERA is a cost-sharing, multiple employer, defined benefit, public employee retirement system whose main function is to provide service retirement, disability, death, and survivor benefits to the General and Safety members employed by the County of Alameda. ACERA also provides retirement benefits to the employee members of First 5 Alameda County, Housing Authority of the County of Alameda, Alameda Health System, Livermore Area Recreation and Park District (LARPD), Superior Court of California—County of Alameda, and Alameda County Office of Education.

The management of ACERA is vested with the ACERA Board of Retirement. The Board consists of nine members and two alternates. The County Treasurer is a member of the Board of Retirement by law and is elected by the general public. Four members are appointed by the Board of Supervisors, one of whom may be a County Supervisor. Two active members are elected by the General members; one active member and one alternate are elected by the Safety members; one retired member and one alternate are elected by the retired members. All members of the Board of Retirement serve terms of three years except for the County Treasurer whose term runs concurrent with his term as County Treasurer.

Plan membership. At December 31, 2019, OPEB plan membership consisted of the following:

Retired members or beneficiaries currently receiving medical benefits	TBD
Retired members or beneficiaries currently receiving dental and vision benefits	TBD
Vested terminated members entitled to, but not yet receiving benefits	TBD
Active members	TBD

Note: Data as of December 31, 2019 is not used in the measurement of the TOL as of December 31, 2019. It will be used for the sufficiency study for the SRBR as of December 31, 2019 as well as in next year's GASB 74 valuation.

Benefits provided. ACERA provides benefits to eligible employees.

Membership Eligibility:

Service Retirees: Retired with at least 10 years of service (including deferred vested members who terminate employment and receive a retirement benefit from ACERA)

Disabled Retirees: A minimum of 10[4] years of service is required for non-duty disability.

There is no minimum service requirement for duty disability.

Benefit Eligibility:

1. Monthly Medical Allowance

Service Retirees: For retirees not purchasing individual insurance through the Individual Medicare Insurance Exchange, a Maximum Monthly Medical Allowance of $558.00 per month was provided, effective January 1, 2019 and through December 31, 2019. For the period January 1, 2020 through December 31, 2020, the maximum allowance is $578.65 per month.

For those purchasing insurance through the Individual Medicare Exchange, the Maximum Monthly Medical Allowance was $427.46 per month for 2019 and is $443.28 for 2020.

These Allowances are subject to the following subsidy schedule:

Completed Years of Service	Percentage Subsidized
10-14	50%
15-19	75%
20+	100%

[4] The 10 years of service requirement is only used for determining eligibility for health benefits. For pension benefits, the eligibility requirement is 5 years of service.

Disabled Retirees:	Non-duty disabled retirees receive the same Monthly Medical Allowance as service retirees. Duty disabled retirees receive the same Monthly Medical Allowance as those service retirees with 20 or more years of service.

2. Medicare Benefit Reimbursement Plan:

The SRBR reimburses the full Medicare Part B premium to qualified retired members.

To qualify for reimbursement, a retiree must:

- Have at least 10 years of ACERA service,
- Be eligible for Monthly Medical Allowance,
- Provide proof of enrollment in Medicare Part B.

3. Dental and Vision Plans:

The SRBR provides dental and vision benefits for retirees only. The maximum combined monthly dental and vision premium was $48.39 in 2019 and is $46.28 in 2020. The eligibility for these premiums is as follows:

Service Retirees:	Retired with at least 10 years of service.
Disabled Retirees:	For non-duty disabled retirees, 10 years of service is required. For grandfathered non-duty disabled retirees (with effective retirement dates on or before January 31, 2014), there is no minimum service requirement. For duty disabled retirees, there is no minimum service requirement.

Note about Monthly Medical Allowance:

The maximum levels of subsidy are reviewed by the Board annually and are not indexed to increase automatically.

In addition, the Monthly Medical Allowance can only be used to pay for retiree medical benefits. There is no benefit payable to beneficiaries, current spouses, former spouses or dependents.

If the actual cost of coverage is less than the Monthly Medical Allowance, the difference is not paid in cash or applied towards the coverage for beneficiaries, current spouses, former spouses or dependents.

Deferred Benefit: Members who terminate employment with 10 or more years of service before reaching Pension eligibility commencement age may elect deferred MMA and/or dental/vision benefits.

Death Benefit: Surviving spouses/domestic partners of members who die before the member commences retiree health benefits may enroll in an ACERA group medical plan on the date that the member would have been eligible to commence benefits. The surviving spouse/domestic partner must pay 100% of the premium. Because premiums for surviving spouses/domestic partners under age 65 are calculated together with active participants for purposes of underwriting, the surviving spouses/domestic partners receive an implicit subsidy, which creates a liability for the SRBR.

EXHIBIT 2
Net OPEB Liability

The components of the Net OPEB Liability of ACERA are as follows:

	December 31, 2019	December 31, 2018
Total OPEB Liability	$1,083,114,679	$1,054,337,014
Plan's Fiduciary Net Position	970,180,405	821,440,435
Net OPEB Liability	$112,934,274	$232,896,579
Plan's Fiduciary Net Position as a percentage of the Total OPEB Liability	89.57%	77.91%

The Net OPEB Liability was measured as of December 31, 2019 and 2018. The Plan's Fiduciary Net Position (plan assets) was valued as of the measurement date, while the Total OPEB Liability was determined by rolling forward the Total OPEB Liability as of December 31, 2018 and 2017, respectively.

Plan provisions. The plan provisions used in the measurement of the NOL as of December 31, 2019 and 2018 is the same as those used in ACERA's SRBR sufficiency valuation as of December 31, 2018 and 2017, respectively.

Actuarial assumptions. The actuarial assumptions used for the December 31, 2019 valuation were based on the results of the experience study for the period from December 1, 2013 through November 30, 2016 that were approved by the Board effective with the December 31, 2017 valuation and the health care trend assumptions recommended for the upcoming sufficiency study for the SRBR as of December 31, 2019 (reference: our DRAFT letter dated March 12, 2020). The assumptions used in the December 31, 2019 SRBR OPEB actuarial valuation for ACERA were applied to all periods included in the measurement:

December 31, 2019

Investment rate of return	7.25%, net of OPEB plan investment expense, including inflation
Inflation	3.00%
Health care premium trend rates*	
Non-Medicare medical plan	Graded from 6.75% to ultimate 4.50% over 9 years
Medicare medical plan	Graded from 6.25% to ultimate 4.50% over 7 years
Dental/Vision	4.00%
Medicare Part B	4.50%
Other assumptions	Same as those proposed in the experience study for the period December 1, 2013 through November 30, 2016

December 31, 2018

Investment rate of return	7.25%, net of OPEB plan investment expense, including inflation
Inflation	3.00%
Health care premium trend rates**	
Non-Medicare medical plan	Graded from 7.00% to ultimate 4.50% over 10 years
Medicare medical plan	Graded from 6.50% to ultimate 4.50% over 8 years
Dental/Vision and Medicare Part B	4.00%
Other assumptions	Same as those proposed in the experience study for the period December 1, 2013 through November 30, 2016

* The trend rates shown above for 2020 as of the December 31, 2019 measurement do not include a one-time reduction of 1.20% to the first year non-Medicare trend of 6.75% and 0.90% to the first year Medicare trend of 6.25% to reflect the recent repeal of the Health Insurance Tax (HIT) taking effect in 2021.

** The trend rates shown above for 2019 as of the December 31, 2018 measurement are before reflecting a one-time adjustment to reflect the impact of the Health Insurance Tax (HIT). The weighted average increase amongst all carriers is approximately 1.2% for Non-Medicare and 0.9% for Medicare plans.

The long-term expected rate of return on OPEB plan investments[5] was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation and subtracting expected investment expenses and a risk margin. This information will change every three years based on the results of an actuarial experience study.

[5] Note that the investment return assumption for SRBR sufficiency testing (and pension plan funding) purposes was developed net of both investment and administrative expenses; however, the same investment return assumption was used for financial reporting purposes, and it was considered gross of administrative expenses for financial reporting purposes. (This resulted in an increase in the margin for adverse deviation when using that investment return assumption for financial reporting.)

The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before deducting investment expenses, used in the derivation of the long-term expected investment rate of return assumption for the December 31, 2019 valuation are summarized in the following table. This information is subject to change every three years.

Asset Class	Target Allocation	Long-Term (Arithmetic) Expected Real Rate of Return
Domestic Large Cap Equity	22.40%	5.75%
Domestic Small Cap Equity	5.60%	6.37%
Developed International Equity	19.50%	6.89%
Emerging Markets Equity	6.50%	9.54%
U.S. Core Fixed Income	11.25%	1.03%
High Yield Bonds	1.50%	3.99%
International Bonds	2.25%	0.19%
TIPS	2.00%	0.98%
Real Estate	8.00%	4.47%
Commodities	3.00%	3.78%
Hedge Funds	9.00%	4.30%
Private Equity	9.00%	7.60%
Total	100.00%	

Discount rate: The discount rate used to measure the Total OPEB Liability was 7.25% as of December 31, 2019 and December 31, 2018. The projection of cash flows used to determine the discount rate assumed benefits are paid out of current OPEB SRBR assets. Based on those assumptions, the SRBR OPEB Plan's Fiduciary Net Position was projected to be available to make all projected future benefits payments for current plan members.[6] Therefore the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the Total OPEB Liability as of December 31, 2019 and December 31, 2018.

[6] See discussions in Section 1 regarding source of funding for payment of OPEB SRBR benefits not covered by current OPEB SRBR Plan's Fiduciary Net Position.

Sensitivity of the Net OPEB Liability to changes in the discount rate. The following presents the Net OPEB Liability of ACERA as of December 31, 2019, calculated using the discount rate of 7.25%, as well as what ACERA's Net OPEB Liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.25%) or 1-percentage-point higher (8.25%) than the current rate:

	1% Decrease (6.25%)	Current Discount (7.25%)	1% Increase (8.25%)
Net OPEB Liability as of December 31, 2019	$252,174,716	$112,934,274	-$2,659,312

Sensitivity of the Net OPEB Liability to changes in the healthcare cost trend rate. The following presents the Net OPEB Liability of ACERA as of December 31, 2019, calculated using the current trend rate as well as what ACERA's Net OPEB Liability would be if it were calculated using a trend rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

	1% Decrease*	Current Trend Rates*	1% Increase*
Net OPEB Liability as of December 31, 2019	-$15,481,252	$112,934,274	$271,127,869

* *Current trend rates: 6.75% graded down to 4.50% over 9 years for Non-Medicare medical plan costs; 6.25% graded down to 4.50% over 7 years for Medicare medical plan costs, 4.00% for all years for Dental and Vision costs, and 4.50% for all years for Medicare Part B costs. The medical trend rates shown above for 2020 (6.75% and 6.25% for non-Medicare and Medicare plans, respectively) do not include a one-time reduction of 1.20% to the non-Medicare plan trend of 6.75% and 0.90% to the Medicare plan trend of 6.50% to reflect the recent repeal of the Health Insurance Tax (HIT) taking effect in 2021.*

EXHIBIT 3
Schedules of Changes in Net OPEB Liability – Last Two Fiscal Years

	2019	2018
Total OPEB Liability		
Service cost[1]	$27,678,194	$31,577,168
Interest	73,843,280	73,426,531
Change of benefit terms	0	0
Differences between expected and actual experience	-41,706,128	-27,712,610
Changes of assumptions	12,524,469	-11,429,923
Benefit payments	-43,562,150	-40,878,670
Net change in Total OPEB Liability	$28,777,665	$24,982,496
Total OPEB Liability – beginning	1,054,337,014	1,029,354,518
Total OPEB Liability – ending (a)	$1,083,114,679	$1,054,337,014
Plan's Fiduciary Net Position		
Contributions – employer[2]	N/A	N/A
Contributions – employee	N/A	N/A
Net investment income	$193,656,620	-$138,332,627
Benefit payments	-43,562,150	-40,878,670
Administrative expense	-1,354,500	-1,224,500
Other	0	0
Net change in Plan's Fiduciary Net Position	$148,739,970	-$180,435,797
Plan's Fiduciary Net Position – beginning[3]	821,440,435	1,001,876,232
Plan's Fiduciary Net Position – ending (b)[3]	$970,180,405	$821,440,435
Net OPEB Liability – ending (a) – (b)	$112,934,274	$232,896,579
Plan's Fiduciary Net Position as a percentage of the Total OPEB Liability	89.57%	77.91%
Covered-employee payroll[4]	N/A	N/A
Plan Net OPEB Liability as percentage of covered-employee payroll	N/A	N/A

(1) *The service cost is always based on the previous year's valuation, meaning the valuation as of December 31, 2018 and 2017, respectively.*
(2) *Employer contributions are on a net basis. Benefits are funded by employer contributions to the 401(h) account and similar amounts are transferred from the SRBR to the Employers Advance Reserve to backfill the employer contributions that would have otherwise been made to the Retirement Plan.*
(3) *See footnote (2) on page v for a discussion on the development of the 2019 "Plan's Fiduciary Net Position – beginning" amount of $821,440,435 and the 2019 "Plan's Fiduciary Net Position – ending" amount of $970,180,405.*
(4) *Covered-employee payroll is not shown as contributions to the OPEB plan are not based on a measure of pay. Covered-employee payroll represents Compensation Earnable and Pensionable Compensation. Only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits would otherwise be included.*

EXHIBIT 4
Schedule of Employer Contributions – Last Ten Fiscal Years

Year Ended December 31	Actuarially Determined Contributions[1]	Contributions in Relation to the Actuarially Determined Contributions[1]	Contribution Deficiency / (Excess)	Covered-Employee Payroll[2]	Contributions as a Percentage of Covered-Employee Payroll
2010	N/A	N/A	0	N/A	N/A
2011	N/A	N/A	0	N/A	N/A
2012	N/A	N/A	0	N/A	N/A
2013	N/A	N/A	0	N/A	N/A
2014	N/A	N/A	0	N/A	N/A
2015	N/A	N/A	0	N/A	N/A
2016	N/A	N/A	0	N/A	N/A
2017	N/A	N/A	0	N/A	N/A
2018	N/A	N/A	0	N/A	N/A
2019	N/A	N/A	0	N/A	N/A

(1) Benefits are funded by employer contributions to the 401(h) account and similar amounts are transferred from the SRBR to the Employers Advance Reserve to backfill the employer contributions that would have otherwise been made to the Retirement Plan.

(2) Covered-employee payroll is not shown as contributions to the OPEB plan are not based on a measure of pay. Covered-employee payroll represents Compensation Earnable and Pensionable Compensation. Only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits would otherwise be included.

EXHIBIT 5

Projection of OPEB Plan's Fiduciary Net Position for Use in Calculation of Discount Rate as of December 31, 2019
($ in millions)

Year Beginning January 1,	Projected Beginning OPEB Plan's Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending OPEB Plan's Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
2019	$821	$0	$44	$1	$194	$970
2020	970	0	54	2	68	983
2021	983	0	57	2	69	994
2022	994	0	61	2	70	1,001
2023	1,001	0	65	2	70	1,004
2024	1,004	0	69	2	70	1,004
2025	1,004	0	73	2	70	999
2026	999	0	77	2	70	989
2027	989	0	81	2	69	975
2028	975	0	85	2	68	956
2029	956	0	89	2	66	931
2030	931	0	93	2	64	901
2031	901	0	97	1	62	864
2032	864	0	101	1	59	821
2033	821	0	105	1	56	771
2034	771	0	108	1	52	714
2035	714	0	111	1	48	649
2036	649	0	114	1	43	576
2037	576	0	117	1	38	496
2038	496	0	120	1	32	407
2039	407	0	122	1	25	309
2040	309	0	125	1	18	201
2041	201	0	127	0 *	10	84
2042	84	0	87	0 *	3	0
2043	0	0	0	0	0	0
2044	0	0	0	0	0	0
2045	0	0	0	0	0	0
2046	0	0	0	0	0	0
2133	0	0	0	0	0	0
2134	0	0	0	0	0	0
2134	Discounted Value: 0					

* *Less than $1 M, when rounded.*

EXHIBIT 5

Projection of OPEB Plan's Fiduciary Net Position for Use in Calculation of Discount Rate as of December 31, 2019 ($ in millions) - continued

Notes:

(1) Amounts may not total exactly due to rounding.

(2) Amounts shown in the year beginning January 1, 2019 row are actual amounts, based on the financial statements provided by ACERA.

(3) Years 2047 - 2132 have been omitted from this table.

(4) Column (a): Except for the "discounted value" shown for 2134, all of the projected beginning Plan's Fiduciary Net Position amounts shown have not been adjusted for the time value of money.

(5) Column (b): $0. Benefits are funded by employer contributions to the 401(h) account and similar amounts are transferred from the SRBR to the Employers Advance Reserve to backfill the employer contributions that would have otherwise been made to the Retirement Plan.

(6) Column (c): Projected benefit payments have been determined in accordance with paragraph 43-47 of GASB Statement No. 74, and are based on the closed group of active, inactive vested, retired members, and beneficiaries as of November 30, 2018. The projected benefit payments reflect future health care trends. The projected benefit payments include the OPEB SRBR benefits to the extent the current OPEB SRBR (including the portion of deferred investment gain as of December 31, 2019 that is expected to be allocated to the SRBR) supports those benefits*. Benefit payments are assumed to occur halfway through the year, on average. In accordance with paragraph 35 b.(2)(e) of GASB Statement No. 74, the long-term expected rate of return on Plan investments of 7.25% per annum was applied to all periods of projected benefit payments to determine the discount rate.

(7) Column (d): Projected administrative expenses are calculated as approximately 0.16% of the beginning OPEB SRBR Plan's Fiduciary Net Position amount. The 0.16% portion was based on the actual fiscal year 2019 administrative expenses as a percentage of the beginning OPEB SRBR Plan's Fiduciary Net Position amount as of January 1, 2019. Administrative expenses are assumed to occur halfway through the year, on average.

(8) Column (e): Projected investment earnings are based on the assumed investment rate of return of 7.25% per annum.

(9) As illustrated in this Exhibit, the OPEB SRBR Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected "cross-over date" when projected benefits are not covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.25% per annum was applied to all periods of projected benefit payments to determine the total OPEB liability as of December 31, 2019 shown earlier in this report, pursuant to paragraph 48 of GASB Statement No. 74.

* See discussion on page ii regarding source of funding for payment of OPEB SRBR benefits not covered by current OPEB Plan's Fiduciary Net Position in the SRBR.

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VIA E-MAIL

DRAFT – FOR DISCUSSION WITH CLIENT

April 8, 2020

Ms. Margo Allen
Fiscal Services Officer
Alameda County Employees' Retirement Association
475 14th Street, Suite 1000
Oakland, CA 94612-1900

Re: Alameda County Employees' Retirement Association (ACERA)
Addendum to the Governmental Accounting Standards Board (GASB) Statement 67 Actuarial Valuation as of December 31, 2019

Dear Margo:

In our Governmental Accounting Standards (GASB) Statement 67 actuarial valuation draft report dated April 7, 2020, we provided the Net Pension Liabilities (NPL) and other elements that are required for completing the Plan's financial reporting requirements under GASB Statement 67. In this letter, we have provided as an addendum to that report two additional schedules that the American Institute of Certified Public Accountants (AICPA) State and Local Government Expert Panel recommends be prepared by the Retirement Association's actuary (Segal) for use in allocating the NPL and pension expense by employer, before we issue the full companion report for the employer's financial reporting for ACERA under GASB Statement 68.

The attached schedules have been developed based on the assumptions, methods, and results shown in our draft report dated April 7, 2020. Exhibits A1 and A2 detail the method used for allocating the NPL and they provide the NPL amounts allocated to the seven employers at ACERA as of December 31, 2018 and December 31, 2019, respectively.

In 2019, the Alameda County Office of Education (ACOE) made a lump sum contribution of $750,000 to partially pay off their UAAL. That lump sum is greater than the amount that ACOE would have to make on an installment basis over 20 years. The non-OPEB SRBR NPL is allocated to the employers in proportion to the total employer contributions made by those employers to the Pension Plan. In order to have a more level allocation of the NPL to ACOE, ACERA approved an approach outlined in our March 2, 2020 letter to determine ACOE's proportionate share of the non-OPEB SRBR NPL by using the total annual UAAL contribution ACOE would have made of $132,883 in 2019 if they did not make the additional contribution to partially pay off their UAAL.

Exhibit B summarizes the allocated NPL, deferred outflows and inflows of resources, and pension expense by the seven employers. Additional information required under GASB Statement 68 that each of the employers will need to disclose will be provided later in a separate report.

These calculations were performed under the supervision of Eva Yum, FSA, MAAA, Enrolled Actuary. 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.

Please let us know if you have any questions.

Sincerely,

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

Eva Yum, FSA, MAAA, EA
Senior Actuary

JB/
Enclosures

Schedule of Employer Allocations as of December 31, 2018

Actual Employer Contributions by Employer and Membership Class
January 1, 2018 to December 31, 2018

	General Members, Excluding ACOE and LARPD		General ACOE Members Only		General LARPD Members Only		All General Members Combined	
Employer	**Contributions**	**Percentage[1]**	**Contributions**	**Percentage**	**Contributions**	**Percentage**	**Contributions**	**Percentage**
Alameda County	$112,075,994	64.134%	$0	N/A	$0	0.000%	$112,075,994	63.731%
Health System	50,652,924	28.985%	0	N/A	0	0.000%	50,652,924	28.804%
Superior Court	9,789,834	5.602%	0	N/A	0	0.000%	9,789,834	5.567%
First 5	1,022,889	0.585%	0	N/A	0	0.000%	1,022,889	0.582%
Housing Authority	1,213,308	0.694%	0	N/A	0	0.000%	1,213,308	0.690%
LARPD	0	0.000%	0	N/A	1,100,236	100.000%	1,100,236	0.626%
ACOE	0	0.000%	0	N/A	0	0.000%	0	0.000%
Total for all Employers	**$174,754,949**	**100.000%**	**$0**	**N/A**	**$1,100,236**	**100.000%**	**$175,855,185**	**100.000%**

Actual Employer Contributions by Employer and Membership Class
January 1, 2018 to December 31, 2018

	Safety Members		Total	
Employer	**Contributions**	**Percentage**	**Contributions**	**Percentage[1,2]**
Alameda County	$93,829,624	100.000%	$205,905,618	76.351%
Health System	0	0.000%	50,652,924	18.782%
Superior Court	0	0.000%	9,789,834	3.630%
First 5	0	0.000%	1,022,889	0.379%
Housing Authority	0	0.000%	1,213,308	0.450%
LARPD	0	0.000%	1,100,236	0.408%
ACOE	0	0.000%	0	0.000%
Total for all Employers	**$93,829,624**	**100.000%**	**$269,684,809**	**100.000%**

[1] The unrounded percentages are used in the allocation of the NPL amongst the employers.

[2] In prior years, we used the unrounded percentages above in estimating the allocation of member contributions for purposes of determining pension expense amongst the employers. We had continued that practice through December 31, 2017 even though ACERA has since provided us with the actual member contributions by employer, as the difference between the actual and the estimated member contributions would only have the primary impact of changing the timing on when pension expense would have to be recognized by individual employers.
Starting with the 12/31/2018 actuarial valuation, ACERA has provided us with actual Pension Plan benefit payments by General (excluding ACOE and LARPD), General ACOE, General LARPD and Safety membership classes (in addition to the actual member contributions by employers). Therefore, we now use the actual Pension Plan benefit payments by those four membership classes and actual member contributions by employer within each of the four membership class for purposes of determining pension expense amongst the employers. This is consistent with how we developed the valuation value of assets in the funding actuarial valuation.

Schedule of Employer Allocations as of December 31, 2018

Allocation of December 31, 2018 Net Pension Liability

	General NPL, Excluding ACOE and LARPD (Excl. non-OPEB SRBR NPL)		General ACOE NPL Only (Excl. non-OPEB SRBR NPL)		General LARPD NPL Only (Excl. non-OPEB SRBR NPL)		Total General NPL (Excl. non-OPEB SRBR NPL)	
Employer	**NPL**	**Percentage[1]**	**NPL**	**Percentage[1]**	**NPL**	**Percentage[1]**	**NPL**	**Percentage**
Alameda County	$1,056,842,788	64.134%	$0	0.000%	$0	0.000%	$1,056,842,788	63.481%
Health System	477,641,781	28.985%	0	0.000%	0	0.000%	477,641,781	28.690%
Superior Court	92,315,179	5.602%	0	0.000%	0	0.000%	92,315,179	5.545%
First 5	9,645,534	0.585%	0	0.000%	0	0.000%	9,645,534	0.579%
Housing Authority	11,441,128	0.694%	0	0.000%	0	0.000%	11,441,128	0.687%
LARPD	0	0.000%	0	0.000%	15,284,738	100.000%	15,284,738	0.918%
ACOE	0	0.000%	1,666,157	100.000%	0	0.000%	1,666,157	0.100%
Total for all Employers	**$1,647,886,410**	**100.000%**	**$1,666,157**	**100.000%**	**$15,284,738**	**100.000%**	**$1,664,837,305**	**100.000%**

Allocation of December 31, 2018 Net Pension Liability

	Safety NPL (Excl. non-OPEB SRBR NPL)		General & Safety Total (Excl. non-OPEB SRBR NPL)		General & Safety Non-OPEB SRBR NPL		Total	
Employer	**NPL**	**Percentage[1]**	**NPL**	**Percentage**	**NPL**	**Percentage[2]**	**NPL**	**Percentage**
Alameda County	$971,674,335	100.000%	$2,028,517,123	76.940%	$97,339,469	76.351%	$2,125,856,592	76.913%
Health System	0	0.000%	477,641,781	18.116%	23,945,577	18.782%	501,587,358	18.147%
Superior Court	0	0.000%	92,315,179	3.501%	4,628,029	3.630%	96,943,208	3.507%
First 5	0	0.000%	9,645,534	0.366%	483,559	0.379%	10,129,093	0.366%
Housing Authority	0	0.000%	11,441,128	0.434%	573,577	0.450%	12,014,705	0.435%
LARPD	0	0.000%	15,284,738	0.580%	520,124	0.408%	15,804,862	0.572%
ACOE	0	0.000%	1,666,157	0.063%	0	0.000%	1,666,157	0.060%
Total for all Employers	**$971,674,335**	**100.000%**	**$2,636,511,640**	**100.000%**	**$127,490,335**	**100.000%**	**$2,764,001,975**	**100.000%**

[1] Allocated based on the actual employer contributions within each membership class.

[2] Allocated based on the actual employer contributions in total. ACOE was not required to make any Pension Plan contributions during 2018 because their payroll was $0. However, they were required to make a contribution under the Declining Employer Payroll Policy starting in 2019. As they would be expected to make a large lump sum contribution to partially pay off their liability, we would consult with the auditor on whether any special adjustment needs to be made when we report their non-OPEB SRBR NPL next year.

Notes:

Based on the January 1, 2018 through December 31, 2018 employer contributions as provided by ACERA.

Pension (excluding non-OPEB SRBR)

The Net Pension Liability (NPL) for each membership class is the Total Pension Liability (TPL) minus the Plan's Fiduciary Net Position (plan assets). The Total Pension Liability for each membership class is obtained from internal valuation results. The Plan's Fiduciary Net Position for each membership class is obtained by allocating the total Plan's Fiduciary Net Position for Pension (excluding non-OPEB SRBR) proportionally based on the valuation value of assets for each membership class relative to the total valuation value of assets for all membership classes.[1] The total Plan's Fiduciary Net Position for pension as of December 31, 2018 includes the net market value of assets less SRBR assets. The SRBR assets include the SRBR-OPEB reserve (after reducing the reserve by the SRBR implicit subsidy transfer), the 401(h) reserve, and the Non-OPEB SRBR reserve, less a proportionate share of the deferred market losses (after adjustment to include the balance in the Contingency Reserve) commensurate with the size of those SRBR reserves.

The General ACOE membership class has only one employer (ACOE), so all of the NPL for General ACOE is allocated to the ACOE. The General LARPD membership class has only one employer (LARPD), so all of the NPL for General LARPD is allocated to LARPD. The Safety membership class also has only one employer (County), so all of the NPL for Safety is allocated to the County.

For General excluding ACOE and LARPD, the NPL is allocated based on the actual employer contributions within the General membership class excluding any contributions made by ACOE and LARPD. The steps used for the allocation are as follows:

-First calculate the ratio of the employer's contributions to the total contributions for the membership class.
-This ratio is multiplied by the NPL for the membership class to determine the employer's proportionate share of the NPL for the membership class.

Non-OPEB SRBR

The non-OPEB SRBR assets include the Non-OPEB SRBR reserve, less a proportionate share of the deferred market losses (after adjustment to include the balance in the Contingency Reserve) commensurate with the size of those Non-OPEB SRBR reserves.

For non-OPEB SRBR, the NPL is allocated based on the actual employer contributions in total. The steps used for the allocation are as follows:

-First calculate the ratio of the employer's total contributions to the total contributions for all employers.
-This ratio is multiplied by the NPL for the non-OPEB SRBR to determine the employer's proportionate share of the NPL for the non-OPEB SRBR.

Total

The employer's total allocated NPL is the sum of its allocated pension NPL from each membership class and the non-OPEB SRBR. The proportionate share of the total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers.

[1] As of December 31, 2018, the total Plan's Fiduciary Net Position for Pension (excluding non-OPEB SRBR) is $504.8 million **lower** than the valuation value of assets as of the same date due to the inclusion of deferred market **losses** and no available Contingency Reserve.

Exhibit A2

Schedule of Employer Allocations as of December 31, 2019

Actual Employer Contributions by Employer and Membership Class
January 1, 2019 to December 31, 2019

	General Members, Excluding ACOE and LARPD		General ACOE Members Only		General LARPD Members Only		All General Members Combined	
Employer	**Contributions**	**Percentage[1]**	**Contributions**	**Percentage**	**Contributions**	**Percentage**	**Contributions**	**Percentage**
Alameda County	$124,398,408	64.606%	$0	0.000%	$0	0.000%	$124,398,408	63.924%
Health System	54,239,577	28.169%	0	0.000%	0	0.000%	54,239,577	27.872%
Superior Court	11,501,609	5.973%	0	0.000%	0	0.000%	11,501,609	5.910%
First 5	1,200,993	0.624%	0	0.000%	0	0.000%	1,200,993	0.617%
Housing Authority	1,208,258	0.628%	0	0.000%	0	0.000%	1,208,258	0.621%
LARPD	0	0.000%	0	0.000%	1,306,574	100.000%	1,306,574	0.671%
ACOE	0	0.000%	750,000	100.000%	0	0.000%	750,000	0.385%
Total for all Employers	**$192,548,845**	**100.000%**	**$750,000**	**100.000%**	**$1,306,574**	**100.000%**	**$194,605,419**	**100.000%**

Actual Employer Contributions by Employer and Membership Class
January 1, 2019 to December 31, 2019

	Safety Members		Total		Adjusted Total[2]	
Employer	**Contributions**	**Percentage**	**Contributions**	**Percentage**	**Contributions**	**Percentage[1]**
Alameda County	$103,921,531	100.000%	$228,319,939	76.482%	$228,319,939	76.639%
Health System	0	0.000%	54,239,577	18.169%	54,239,577	18.207%
Superior Court	0	0.000%	11,501,609	3.853%	11,501,609	3.861%
First 5	0	0.000%	1,200,993	0.402%	1,200,993	0.403%
Housing Authority	0	0.000%	1,208,258	0.405%	1,208,258	0.406%
LARPD	0	0.000%	1,306,574	0.438%	1,306,574	0.439%
ACOE	0	0.000%	750,000	0.251%	132,883[2]	0.045%
Total for all Employers	**$103,921,531**	**100.000%**	**$298,526,950**	**100.000%**	**$297,909,833**	**100.000%**

1 The unrounded percentages are used in the allocation of the NPL amongst the employers.

2 ACOE made a lump sum contribution of $750,000 in 2019 to partially pay off their UAAL. That lump sum is greater than the amount that ACOE would have to make on an installment basis over 20 years. In order to have a more level allocation of the NPL to ACOE, ACERA approved an approach outlined in our March 2, 2020 letter to determine ACOE's proportionate share of the non-OPEB SRBR NPL by using the total annual UAAL contribution ACOE would have made of $132,883 in 2019 if they did not make the additional contribution to partially pay off their UAAL.

Schedule of Employer Allocations as of December 31, 2019

Allocation of December 31, 2019 Net Pension Liability

Employer	General NPL, Excluding ACOE and LARPD (Excl. non-OPEB SRBR NPL)		General ACOE NPL Only (Excl. non-OPEB SRBR NPL)		General LARPD NPL Only (Excl. non-OPEB SRBR NPL)		Total General NPL (Excl. non-OPEB SRBR NPL)	
	NPL	Percentage[1]	NPL	Percentage[1]	NPL	Percentage[1]	NPL	Percentage
Alameda County	$750,950,156	64.606%	$0	0.000%	$0	0.000%	$750,950,156	63.849%
Health System	327,425,563	28.169%	0	0.000%	0	0.000%	327,425,563	27.838%
Superior Court	69,431,235	5.973%	0	0.000%	0	0.000%	69,431,235	5.903%
First 5	7,249,979	0.624%	0	0.000%	0	0.000%	7,249,979	0.616%
Housing Authority	7,293,836	0.628%	0	0.000%	0	0.000%	7,293,836	0.620%
LARPD	0	0.000%	0	0.000%	13,024,823	100.000%	13,024,823	1.107%
ACOE	0	0.000%	793,504	100.000%	0	0.000%	793,504	0.067%
Total for all Employers	**$1,162,350,769**	**100.000%**	**$793,504**	**100.000%**	**$13,024,823**	**100.000%**	**$1,176,169,096**	**100.000%**

Allocation of December 31, 2019 Net Pension Liability

Employer	Safety NPL (Excl. non-OPEB SRBR NPL)		General & Safety Total (Excl. non-OPEB SRBR NPL)		General & Safety Non-OPEB SRBR NPL		Total	
	NPL	Percentage[1]	NPL	Percentage	NPL	Percentage[2]	NPL	Percentage
Alameda County	$810,219,254	100.000%	$1,561,169,410	78.594%	$118,260,007	76.639%	$1,679,429,417	78.452%
Health System	0	0.000%	327,425,563	16.483%	28,093,792	18.207%	355,519,355	16.608%
Superior Court	0	0.000%	69,431,235	3.495%	5,957,344	3.861%	75,388,579	3.522%
First 5	0	0.000%	7,249,979	0.365%	622,063	0.403%	7,872,042	0.368%
Housing Authority	0	0.000%	7,293,836	0.367%	625,826	0.406%	7,919,662	0.370%
LARPD	0	0.000%	13,024,823	0.656%	676,750	0.439%	13,701,573	0.640%
ACOE	0	0.000%	793,504	0.040%	68,828	0.045%	862,332	0.040%
Total for all Employers	**$810,219,254**	**100.000%**	**$1,986,388,350**	**100.000%**	**$154,304,610**	**100.000%**	**$2,140,692,960**	**100.000%**

Notes:

1 Allocated based on the actual employer contributions within each membership class.

2 Allocated based on the actual employer contributions in total, with an adjustment to reflect the total annual UAAL contribution ACOE would have made of $132,883 in 2019 if they did not make the additional contribution to partially pay off their UAAL. This approach is outlined in our March 2, 2020 letter and is approved by ACERA.

Based on the January 1, 2019 through December 31, 2019 employer contributions as provided by ACERA.

Pension (excluding non-OPEB SRBR)

The Net Pension Liability (NPL) for each membership class is the Total Pension Liability (TPL) minus the Plan's Fiduciary Net Position (plan assets). The Total Pension Liability for each membership class is obtained from internal valuation results. The Plan's Fiduciary Net Position for each membership class is obtained by allocating the total Plan's Fiduciary Net Position for Pension (excluding non-OPEB SRBR) proportionally based on the valuation value of assets for each membership class relative to the total valuation value of assets for all membership classes.[1] The total Plan's Fiduciary Net Position for pension as of December 31, 2019 includes the net fair value of assets less SRBR assets. The SRBR assets include the SRBR-OPEB reserve (after reducing the reserve by the SRBR implicit subsidy transfer), the 401(h) reserve, and the Non-OPEB SRBR reserve, plus a proportionate share of one half of the deferred market gains (after adjustment to replenish the balance in the Contingency Reserve) commensurate with the size of those SRBR reserves and 401(h) reserve to valuation and 401(h) reserves.

The General ACOE membership class has only one employer (ACOE), so all of the NPL for General ACOE is allocated to the ACOE. The General LARPD membership class has only one employer (LARPD), so all of the NPL for General LARPD is allocated to LARPD. The Safety membership class also has only one employer (County), so all of the NPL for Safety is allocated to the County.

For General excluding ACOE and LARPD, the NPL is allocated based on the actual employer contributions within the General membership class excluding any contributions made by ACOE and LARPD. The steps used for the allocation are as follows:

-First calculate the ratio of the employer's contributions to the total contributions for the membership class.
-This ratio is multiplied by the NPL for the membership class to determine the employer's proportionate share of the NPL for the membership class.

Non-OPEB SRBR

The non-OPEB SRBR assets include the Non-OPEB SRBR reserve, plus a proportionate share of one half of the deferred market gains (after adjustment to replenish the balance in the Contingency Reserve) commensurate with the size of the non-OPEB to total SRBR reserves.

For non-OPEB SRBR, the NPL is allocated based on the actual employer contributions in total.[2] The steps used for the allocation are as follows:

-First calculate the ratio of the employer's total contributions to the total contributions for all employers.
-This ratio is multiplied by the NPL for the non-OPEB SRBR to determine the employer's proportionate share of the NPL for the non-OPEB SRBR.

Total

The employer's total allocated NPL is the sum of its allocated pension NPL from each membership class and the non-OPEB SRBR. The proportionate share of the total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers.

[1] As of December 31, 2019, the total Plan's Fiduciary Net Position for Pension (excluding non-OPEB SRBR) is $174.9 million **higher** than the valuation value of assets as of the same date due to the inclusion of deferred market **gains**.
[2] Includes an adjustment to reflect the total annual UAAL contribution ACOE would have made of $132,883 in 2019 if they did not make the additional contribution to partially pay off their UAAL. This approach is outlined in our March 2, 2020 letter and is approved by ACERA.

Schedule of Pension Amounts by Employer as of December 31, 2019

		Deferred Outflows of Resources				
Employer	**Net Pension Liability**	**Differences Between Expected and Actual Experience**	**Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments**	**Changes of Assumptions**	**Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions**	**Total Deferred Outflows of Resources**
Alameda County	$1,679,429,417	$29,709,753	$0	$163,207,471	$6,558,962	$199,476,186
Health System	355,519,355	3,236,186	0	38,885,514	6,333,639	48,455,339
Superior Court	75,388,579	686,240	0	8,245,750	4,077,438	13,009,428
First 5	7,872,042	71,657	0	861,018	591,593	1,524,268
Housing Authority	7,919,662	72,090	0	866,226	43,631	981,947
LARPD	13,701,573	4,084,482	0	934,042	34,430	5,052,954
ACOE	862,332	909,027	0	19,203	35,469	963,699
Total for all Employers	**$2,140,692,960**	**$38,769,435**	**$0**	**$213,019,224**	**$17,675,162**	**$269,463,821**

Schedule of Pension Amounts by Employer as of December 31, 2019

Employer	Deferred Inflows of Resources: Differences Between Expected and Actual Experience	Deferred Inflows of Resources: Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Deferred Inflows of Resources: Changes of Assumptions	Deferred Inflows of Resources: Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Deferred Inflows of Resources: Total Deferred Inflows of Resources	Pension Expense: Proportionate Share of Plan Pension Expense	Pension Expense: Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Pension Expense: Total Employer Pension Expense
Alameda County	$17,068,065	$248,325,745	$20,653,973	$4,280,444	$290,328,227	$323,282,627	$513,620	$323,796,247
Health System	6,184,756	74,608,604	4,906,548	9,176,298	94,876,206	74,923,370	44,478	74,967,848
Superior Court	1,311,490	15,820,901	1,040,443	3,103,677	21,276,511	15,887,646	-399,040	15,488,606
First 5	136,945	1,652,012	108,643	17,133	1,914,733	1,658,980	136,431	1,795,411
Housing Authority	137,773	1,662,004	109,300	942,801	2,851,878	1,669,016	-257,947	1,411,069
LARPD	489,776	2,128,324	118,194	88,639	2,824,933	2,657,273	-19,698	2,637,575
ACOE	22	38,063	12,021	66,170	116,276	381,986	-17,844	364,142
Total for all Employers	**$25,328,827**	**$344,235,653**	**$26,949,122**	**$17,675,162**	**$414,188,764**	**$420,460,898**	**$0**	**$420,460,898**

Segal

Schedule of Pension Amounts by Employer as of December 31, 2019

Notes:

Amounts shown in this exhibit were allocated first by employer within each of the four pension plan membership class (excl. non-OPEB SRBR) and within the non-OPEB SRBR based on the Employer Allocation Percentage calculated in Exhibit A2, and added together to produce the results by employer in total.

In determining the pension expense:

- Any differences between projected and actual investment earnings on pension plan investments are recognized over a period of five years beginning with the year in which they occur.
- Current-period (i.e., 2019) differences between expected and actual experience and changes of assumptions are recognized over the average of the expected remaining service lives of all employees that are provided with pensions through ACERA determined as of December 31, 2018 (the beginning of the measurement period ending December 31, 2019) and is 5.37 years.
- Prior-period differences between expected and actual experience and changes of assumptions are continued to be recognized based on the expected remaining service lives of all employees calculated as of those prior measurement dates.

The average of the expected remaining service lives of all employees was determined by:

- Calculating each active employee's expected remaining service life as the present value of $1 per year of future service at zero percent interest.
- Setting the remaining service life to zero for each nonactive or retired member.
- Dividing the sum of the above amounts by the total number of active employees and nonactive and retired members.

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Via Email

April 7, 2020

Ms. Margo Allen
Fiscal Services Officer
Alameda County Employees' Retirement Association
475 14th Street, Suite 1000
Oakland, CA 94612

**Re: Alameda County Employees' Retirement Association (ACERA)
Addendum to the Governmental Accounting Standards Board (GASB)
Statement 74 Actuarial Valuation as of December 31, 2019**

Dear Ms. Allen:

In our Governmental Accounting Standards Board (GASB) Statement 74 actuarial valuation draft report dated March 30, 2020, we provided the Net OPEB Liability (NOL) and other elements that are required for completing the Plan's financial reporting requirements under GASB Statement 74. In this letter, we have provided as an Addendum to that report two additional schedules for use in allocating the NOL and OPEB expense by employer, before we issue the full companion report for the employer's financial reporting for ACERA under GASB Statement 75. This is similar to a recommendation made by the American Institute of Certified Public Accountants (AICPA) State and Local Government Expert Panel to have comparable schedules prepared for the Pension Plan when we implemented GASB Statements 67 and 68.

The attached schedules have been developed based on the assumptions, methods, and results shown in our draft report dated March 30, 2020. Exhibits A1 and A2 detail the method used for allocating the NOL and the NOL amounts allocated to the seven employers at ACERA as of December 31, 2018 and December 31, 2019, respectively.[1]

Exhibit B summarizes the allocated NOL, deferred outflows and inflows of resources, and OPEB expense by the seven employers. Additional information required under GASB Statement 75 that each of the employers will need to disclose will be provided in a separate report.

[1] The December 31, 2018 and December 31, 2019 NOL has been allocated to the different employers in proportion to the total employer contributions made by those employers to the Pension Plan during calendar years 2018 and 2019, respectively, based on prior discussions and approval provided by the Board.

The actuarial calculations were completed under the supervision of Thomas Bergman, ASA, MAAA, Enrolled Actuary and Andy Yeung, ASA, MAAA, FCA, Enrolled Actuary. The health care trend and other related medical assumptions have been reviewed by Paul C. Sadro, ASA, MAAA. We are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Please give us a call if you have any questions.

Sincerely,

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

Thomas Bergman, ASA, MAAA, EA
Retiree Health Actuary

TJH/gxk

EXHIBIT A1 - Schedule of Employer Allocations as of December 31, 2018

Actual Employer Contributions by Employer
January 1, 2018 to December 31, 2018

Employer	Contributions	Percentage*
Alameda County	$205,905,618	76.351%
Health System	50,652,924	18.782%
Superior Court	9,789,834	3.630%
First 5	1,022,889	0.379%
Housing Authority	1,213,308	0.450%
LARPD	1,100,236	0.408%
ACOE	0	0.000%
Total for all Employers	$269,684,809	100.000%

* The unrounded percentages are used in the allocation of the NOL amongst employers.

Allocation of December 31, 2018 Net OPEB Liability

Employer	NOL	Percentage
Alameda County	$177,817,632	76.351%
Health System	$43,743,260	18.782%
Superior Court	$8,454,384	3.630%
First 5	$883,354	0.379%
Housing Authority	$1,047,799	0.450%
LARPD	$950,150	0.408%
ACOE	0	0.000%
Total for all Employers	$232,896,579	100.000%

Notes:
1. Based on the January 1, 2018 through December 31, 2018 employer contributions in total as provided by ACERA.
2. The Net OPEB Liability (NOL) is the Total OPEB Liability (TOL) minus the OPEB SRBR Plan's Fiduciary Net Position (plan assets).
3. The employer's share of the total plan NOL is the ratio of the employer's total contributions to the total contributions for all employers.
4. ACOE was not required to make any Pension Plan contributions during 2018 because their payroll was $0 in 2018. However, they are required to make a contribution under the Declining Employer Payroll Policy starting in 2019. As they would be expected to make a large lump sum contribution to partially pay off their liability in 2019, we would consult with the auditor on whether any special adjustment needs to be made when we report their NOL next year

EXHIBIT A2 - Schedule of Employer Allocations as of December 31, 2019

Actual Employer Contributions by Employer
January 1, 2019 to December 31, 2019

Employer	Contributions	Percentage*
Alameda County	$228,319,939	76.639%
Health System	54,239,577	18.207%
Superior Court	11,501,609	3.861%
First 5	1,200,993	0.403%
Housing Authority	1,208,258	0.406%
LARPD	1,306,574	0.439%
ACOE	132,883	0.045%
Total for all Employers	$297,909,833	100.000%

* The unrounded percentages are used in the allocation of the NOL amongst employers.

Allocation of December 31, 2019 Net OPEB Liability

Employer	NOL	Percentage
Alameda County	$86,553,526	76.639%
Health System	20,561,615	18.207%
Superior Court	4,360,131	3.861%
First 5	455,283	0.403%
Housing Authority	458,037	0.406%
LARPD	495,308	0.439%
ACOE	50,374	0.045%
Total for all Employers	$112,934,274	100.000%

Notes:
1. With the exception of an adjustment for the lump sum contribution made by ACODE (see item 4.), the above is based on the January 1, 2019 through December 31, 2019 employer contributions in total as provided by ACERA.
2. The Net OPEB Liability (NOL) is the Total OPEB Liability (TOL) minus the OPEB SRBR Plan's Fiduciary Net Position (plan assets).
3. The employer's share of the total plan NOL is the ratio of the employer's total contributions to the total contributions for all employers.
4. ACOE made a lump sum contribution of $750,000 in 2019 to partially pay off their liability.That lump sum is greater than the amount that ACOE would have had to make on an installment basis over 20 years. In order to have a more level allocation of the NOL to ACOE, ACERA approved an approach outlined in our letter dated March 2, 2020 to determine ACOE's proportionate share of OPEB SRBR NOL by using the total annual UAAL contribution ACOE would have made of $132,883 in 2019 if they did not make the additional contribution to partially pay off their UAAL.

EXHIBIT B

Schedule of OPEB Amounts by Employer as of December 31, 2019

		Deferred Outflows of Resources				
Employer	Net OPEB Liability	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on OPEB Plan Investments	Changes of Assumptions	Changes in Proportion of Employer Contributions	Total Deferred Outflows of Resources
Alameda County	$86,553,526	$0	$0	$33,045,891	$511,790	$33,557,681
Health System	20,561,615	0	0	7,850,366	662,956	8,513,322
Superior Court	4,360,131	0	0	1,664,686	358,019	2,022,705
First 5	455,283	0	0	173,826	47,639	221,465
Housing Authority	458,037	0	0	174,877	$0	174,877
LARPD	495,308	0	0	189,107	47,508	236,615
ACOE	50,374	0	0	19,233	69,232	88,465
Total for all Employers	**$112,934,274**	**$0**	**$0**	**$43,117,986**	**$1,697,144**	**$44,815,130**

EXHIBIT B

Schedule of OPEB Amounts by Employer as of December 31, 2019 - continued

	Deferred Inflows of Resources					OPEB Expense		
Employer	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on OPEB Plan Investments	Changes of Assumptions	Changes in Proportion of Employer Contributions	Total Deferred Inflows of Resources	Proportionate Share of Plan OPEB Expense	Net Amortization of Deferred Amounts from Changes in Proportion of Employer Contributions	Total Employer OPEB Expense
Alameda County	$51,130,217	$43,329,122	$6,133,287	$369,658	$100,962,284	$13,941,938	($7,019)	$13,934,919
Health System	12,146,471	10,293,245	1,457,021	893,328	24,790,065	3,312,041	16,308	3,328,349
Superior Court	2,575,683	2,182,703	308,964	269,204	5,336,554	702,324	(1,649)	700,675
First 5	268,952	227,917	32,262	2,018	531,149	73,337	8,325	81,662
Housing Authority	270,579	229,296	32,457	89,187	621,519	73,780	(17,713)	56,067
LARPD	292,596	247,953	35,098	67,054	642,701	79,785	(8,773)	71,012
ACOE	29,758	25,218	3,570	6,695	65,241	8,114	10,521	18,635
Total for all Employers	**$66,714,256**	**$56,535,454**	**$8,002,659**	**$1,697,144**	**$132,949,513**	**$18,191,319**	**$0**	**$18,191,319**

Segal

EXHIBIT B
Schedule of OPEB Amounts by Employer as of December 31, 2019 - continued

Notes:

1. Amounts shown in this exhibit were allocated by employer based on the Employer Allocation Percentage calculated in Exhibit A2.

2. In determining the OPEB expense:
   - Any differences between projected and actual investment earnings on OPEB plan investments are recognized over a period of five years beginning with the year in which they occur.
   - Current-period (i.e., 2019) changes in assumptions and differences between expected and actual experience are recognized over the average of the expected remaining service lives of all employees that are provided with OPEB benefits through ACERA determined as of December 31, 2018 (the beginning of the measurement period ending December 31, 2019) and is 6.61 years.[1]

3. The average of the expected remaining service lives of all employees was determined by:
   - Calculating each active employee's expected remaining service life as the present value of $1 per year of future service at zero percent interest.
   - Setting the remaining service life to zero for each nonactive or retired member.
   - Dividing the sum of the above amounts by the total number of active employees and nonactive and retired members.

[1] The remaining service lives of all employees of 6.61 years used here for GASB 75 is different from the 5.37 years used for GASB 68 because the number of payees and nonactive members (with 0 years of expected remaining service lives) receiving health benefits under the SRBR Plan is less than the number of payees and nonactive members receiving pension benefits.

NEW BUSINESS

7.G. Solicit input on the frequency and content of operational updates to the Board during this period of disruption.

NEW BUSINESS

7.H. Chief Executive Officer’s Report.

ACERA

Office of the Chief Executive Officer
Office of Administration

DATE: April 16, 2020

TO: Members of the Board of Retirement

FROM: Dave Nelsen, Chief Executive Officer DN

SUBJECT: Chief Executive Officer's Report

Senior Manager Recruitment

None

Committee/Board Action Items

ASSIGNED FOLLOW-UP ITEMS				
Follow-Up Board Item	**Assigned Senior Leader**	**Estimated Completion Date**	**Completion Date**	**Notes**
Schedule Joint Board of Supervisors and Board of Retirement meeting.	Dave Nelsen	Spring of 2020		The meeting was scheduled for 3/24/2020. It was canceled due to the COVID-19 crisis. This will be rescheduled to a later date.

Conference/Event Schedule

None Scheduled

Other Items

COVID-19 Responses

We are taking steps to keep customers and employees safe, while continuing to provide critical services. The offices have been closed to the public. Most staff are working from home. We are taking live phone calls from customers on Tuesday and Thursday, and answering voice mails and emails on Mondays, Wednesdays, and Fridays. So far, we have received no customer complaints about availability.

We are continuing to counsel retiring members, primarily by phone, and there has been no disruption in providing retiree payroll. In-person Retirement Seminars have been suspended, but we will conduct webinar versions of each of the seminars we perform. Additionally, the last Pre-Retirement Seminar conducted was recorded and is available for viewing on the ACERA web-site.

Given the social distancing requirements and health risks of public meetings, and the lifting of many aspects of the Brown Act by Governor Newson, we anticipate that Board and Committee meetings will be conducted as video conferences until such restrictions are lifted. Agendas will reflect those items necessary to continue our core functions.

We will continue to focus on serving our customers and performing our critical functions, while keeping folks safe, until we can resume the full scope of our duties.

Pension Administration System Update

The project is continuing those aspects that can be done, given the limited availability of people to work on this, and the focus on performing critical functions first. Once the crisis has abated, we will assess the impact to the schedule and report that to you.

Personnel Items

Most recruitment functions are on hold during this crisis. We did have open Retirement Technician recruitments when the emergency was declared. These will be completed at a later date.