



# Municipal Market Disclosure Information Cover Sheet

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**This Filing Applies to:**

1. Sacramento Public Financing Authority, Lease Revenue Bonds (Golden 1 Center), Series 2015 (Federally Taxable), \$299,995,000, Dated: August 13, 2015  
78605QAF4, 78605QAG2, 78605QAH0, 78605QAJ6

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**TYPE OF FILING:**

If information is also available on the Internet, give URL: [www.dacbond.com](http://www.dacbond.com)

**WHAT TYPE OF INFORMATION ARE YOU PROVIDING? (Check all that apply)****Financial / Operating Data Disclosures****Rule 15c2-12 Disclosure**

- Annual Financial Information & Operating Data (Rule 15c2-12)  
2020 Operating Data - 2015 Lease Revenue Bonds(G1C)
- Audited Financial Statements or CAFR (Rule 15c2-12)
- Failure to provide as required

**Additional / Voluntary Disclosure**

- Quarterly / Monthly Financial Information
- Change in Fiscal Year / Timing of Annual Disclosure
- Change in Accounting Standard
- Interim / Additional Financial Information / Operating Data
- Budget
- Investment / Debt / Financial Policy
- Information Provided to Rating Agency, Credit / Liquidity Provider or Other Third Party
- Consultant Reports

Other Financial / Operating Data

## Event Filing

### Rule 15c2-12 Disclosure

- Principal / Interest Payment Delinquency
- Non-payment Related Default
- Unscheduled Draw on Debt Service Reserve Reflecting Financial Difficulties
- Unscheduled Draw on Credit Enhancement Reflecting Financial Difficulties
- Substitution of Credit or Liquidity Provider, or Its Failure to Perform
- Adverse Tax Opinion or Event Affecting the Tax-exempt Status of the Security
- Modification to the Rights of Security Holders
- Bond Call
- Defeasance
- Release, Substitution or Sale of Property Securing Repayment of the Security
- Rating Change
- Tender Offer / Secondary Market Purchases
- Merger / Consolidation / Acquisition and Sale of All or Substantially All Assets
- Bankruptcy, insolvency, receivership or similar event
- Successor, Additional or Change in Trustee
- Failure to Provide Event Filing Information as Required
- Financial Obligation - Incurrence and Agreement
- Financial Obligation - Event Reflecting Financial Difficulties

### Additional / Voluntary Disclosure

- Amendment to Continuing Disclosure Undertaking
- Change in Obligated Person
- Notice to Investor Pursuant to Bond Documents
- Communication From the Internal Revenue Service
- Bid For Auction Rate or Other Securities
- Capital or Other Financing Plan
- Litigation / Enforcement Action
- Change of Tender Agent, Remarketing Agent or Other On-going Party
- Derivative or Other Similar Transaction
- Other Event-based Disclosures

### Asset-Backed Securities Filing

### Additional / Voluntary Disclosure

- Initial Asset-Backed Securities Disclosure (SEC Rule 15Ga-1(c)(1))
- Quarterly Asset-Backed Securities Disclosure (SEC Rule 15Ga-1(c)(2)(i))
- Annual Asset-Backed Securities Disclosure (SEC Rule 15Ga-1(c)(2)(ii))
- Other Asset-Backed Securities Disclosure (e.g. notice of termination of duty to file reports pursuant to SEC Rule 15Ga-1(c)(3))

**Disclosure Dissemination Agent Contact:**

Name: DAC

Address: 315 East Robinson Street

Suite 300

City: Orlando

State: FL

Zip Code: 32801-1674

Telephone: 407 515 - 1100

Fax: 407 515 - 6513

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Relationship to Issuer: Dissemination Agent

**Authorized By:**

Name: Claudia Lara

Title: Treasury Analyst

Entity: Sacramento, CA, City of Sacramento

**Digital Assurance Certification**

## Filing Certificate

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**DAC transmitted the Annual Financial Information & Operating Data (Rule 15c2-12) to EMMA/SID (if applicable) on behalf of Sacramento, CA, City of Sacramento under their SEC Rule 15c2-12 Continuing Disclosure Agreement.**

Transmission Details: P31083209

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Date & Time Stamp: 03/30/2021  
Document Name or Event Type: Annual Financial Information & Operating Data (Rule 15c2-12)  
Document Description: 2020 Operating Data - 2015 Lease Revenue Bonds(G1C)  
DAC Bond Coversheet: Yes  
Transmitted to: MSRB-EMMA  
Total CUSIPs associated with this Filing: 4  
Filing made on Series: 2015

**Codes:** **P** (Prerefunded), **R** (Refunded), **U** (Unrefunded), **E** (Escrowed), **A** (Advance Refunding), **D** (Defeased), **T** (Tendered), **V** (Derivatives), **UD** (Undetermined), **NLO** (No Longer Outstanding)

**Red:** Original CUSIPs - filing missed · **Blue:** Non-Original CUSIPs - filing missed · **Green:** Outstanding CUSIPs - filing made · **Black:** Inactive CUSIPs

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1. Issue: Sacramento Public Financing Authority, Lease Revenue Bonds (Golden 1 Center), Series 2015 (Federally Taxable), \$299,995,000, Dated: August 13, 2015

CUSIP: 78605QAF4, 78605QAG2, 78605QAH0, 78605QAJ6

No missing CUSIPs for this bond issue

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**City of Sacramento**  
**Annual Continuing Disclosure Report**  
**Fiscal Year 2019-20**

<b>Issue</b>	Sacramento Public Financing Authority 2015 Lease Revenue Bonds (Golden 1 Center) (Federally Taxable)
<b>Par</b>	\$ 272,870,000
<b>Issued</b>	October 6, 2015
<b>CUSIP Numbers</b>	78605QAF4 78605QAG2 78605QAH0 78605QAJ6

**Content of Annual Report**

**The City's Annual Report shall contain or incorporate by reference the following:**

**(a) The City's audited Annual Financial Report (AFR) for the prior fiscal year.**

The City's AFR for the prior fiscal year was uploaded as a separate document to EMMA. The AFR is also available on the City's website at:

[www.cityofsacramento.org/Finance/Accounting/Reporting](http://www.cityofsacramento.org/Finance/Accounting/Reporting)

**(b) The Annual Budget of the City for the current fiscal year.**

The City's Approved Budget for the current fiscal year was uploaded as a separate document to EMMA and is also available on the City's website at:

[www.cityofsacramento.org/Finance/Budget](http://www.cityofsacramento.org/Finance/Budget)

**(c) An update of the information in Tables of Appendix A to the Limited Offering Memorandum that are titled "STATEMENT OF GENERAL FUND REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE," "GROSS ASSESSED VALUES FOR ALL TAXABLE PROPERTY," "CITY OF SACRAMENTO LARGEST LOCAL SECURED TAXPAYERS", "GENERAL FUND OBLIGATION DEBT SERVICE," and "NOTICES OF DEFAULT AND FORECLOSURES OF PROPERTY WITHIN THE CITY." The updated information must reflect the most recently completed fiscal year and must be substantially in the form of the corresponding tables in Appendix A.**

See Exhibit A – Statement of General Fund Revenues, Expenditures and Changes in Fund Balance

See Exhibit B – Gross Assessed Values for all Taxable Property

See Exhibit C – Largest Local Secured Taxpayers

See Exhibit D – General Fund Obligation Debt Service as of June 30, 2020

The information required by the Continuing Disclosure Certificate – “Notices of Default and Foreclosures of Property within the City of Sacramento” is no longer prepared by the County of Sacramento, Office of the Assessor. At this time the City of Sacramento is not aware of another reliable source to obtain notice of default and foreclosure information within the City of Sacramento in the same format as is presented on page 8 in Appendix A.

- (d) The actuarial valuation report for the Miscellaneous Employees Plan and Safety Employees Plan most recently provided to the City by CalPERS as of the date the City files the Annual Report and the actuarial valuation report for SCERS most recently provided to the City by SCERS as of the date the City files the Annual Report.**

See Exhibit E – GASB 68 Accounting Valuation Report – Miscellaneous Plan as of June 30, 2019

See Exhibit F – GASB 68 Accounting Valuation Report – Safety Plan as of June 30, 2019

See Exhibit G – SCERS Actuarial Valuation – as of June 30, 2020

- (e) Any or all of the items listed in Section 3(a) or 3(b) may be included by specific reference to other documents (including official statements of debt issues of the City or related public entities) that have been submitted to EMMA or the Securities and Exchange Commission. If the document included by reference is a final official statement, it must be available through EMMA.**

**Voluntary Disclosures**

See Exhibit H – 2015 Lease Revenue (Golden 1 Center) Debt Service Schedule

See Exhibit I – GASB 45 Actuarial Valuation Report of Retiree Healthcare Plan as of June 30, 2019

See Exhibit J – GASB 75 Retiree Healthcare Plan as of June 30, 2019

Exhibit A

Exhibit A

STATEMENT OF GENERAL FUND REVENUES, EXPENDITURES AND  
CHANGES IN FUND BALANCE

(in thousands)

	Actual 2015-16	Actual 2016-17	Actual 2017-18	Actual 2018-19	Actual 2019-20
Revenues:					
Property taxes	\$ 150,424	\$ 143,656	\$ 153,346	\$ 164,412	\$ 177,193
Sales and use taxes	67,983	80,395	84,887	93,769	90,969
Utilities use tax	61,404	62,997	62,989	60,128	60,039
Other taxes	26,732	29,961	36,184	39,820	42,506
Intergovernmental	16,253	14,009	22,380	16,350	15,919
Charges for services	73,632	85,780	100,205	108,972	105,446
Fines, forfeitures and penalties	12,110	10,906	12,069	15,964	12,898
Interest, rents and concessions	3,002	2,679	1,195	7,810	6,423
Assessment levies	172	266	291	356	341
Contributions and donations	13	14	85	68	20
Other revenues	245	259	301	536	974
Total revenues	<u>411,970</u>	<u>430,922</u>	<u>473,932</u>	<u>508,185</u>	<u>512,728</u>
Expenditures:					
General government	28,909	36,584	48,694	56,498	54,949
Police	128,891	132,108	138,473	152,637	158,887
Fire	106,399	112,868	119,437	124,324	139,421
Public works	11,308	13,233	13,607	15,101	13,393
Convention and cultural services	4,637	4,972	5,620	5,723	6,485
Economic development	2,114	2,337	-	-	-
Youth, parks, and community enrichment	15,144	19,979	21,428	22,286	21,670
Community development	25,960	28,554	33,340	36,039	38,629
Library	7,130	7,130	8,380	9,380	10,130
Utilities	393	1,205	1,816	2,285	3,268
Citywide and community support	47,961	48,435	46,576	42,827	50,691
Capital outlay	12,577	19,276	21,513	19,392	17,589
Debt service	3,219	2,837	2,102	1,189	568
Total Expenditures	<u>394,642</u>	<u>429,518</u>	<u>460,986</u>	<u>487,681</u>	<u>515,680</u>
Excess (deficiency) of revenues over (under) expenditures	<u>17,328</u>	<u>1,404</u>	<u>12,946</u>	<u>20,504</u>	<u>(2,952)</u>
Other Financing Sources (uses):					
Transfers in	34,256	33,113	35,414	38,652	44,465
Transfers out	(25,032)	(28,959)	(31,545)	(27,919)	(26,680)
Total other financing sources (uses)	<u>9,224</u>	<u>4,154</u>	<u>3,869</u>	<u>10,733</u>	<u>17,785</u>
Special items	-	-	-	7,000	-
Changes in fund balances	<u>\$ 26,552</u>	<u>\$ 5,558</u>	<u>\$ 16,815</u>	<u>\$ 38,237</u>	<u>\$ 14,833</u>
Fund Balance, beginning of year	123,444	149,996	155,554	172,369	210,606
Fund Balance, end of year	<u>\$ 149,996</u>	<u>\$ 155,554</u>	<u>\$ 172,369</u>	<u>\$ 210,606</u>	<u>\$ 225,439</u>
Less reserves and commitments:					
Nonspendable	\$ 2	\$ 3,812	\$ 3,845	\$ -	\$ 1,279
Restricted	2,962	17	-	-	-
Committed:					
Economic uncertainty	46,950	49,644	52,700	55,200	55,200
Capital projects	37,526	49,265	37,583	39,995	57,689
Community center theater renovation	8,500	-	-	-	-
Fire programs	5,720	1,386	6,189	9,568	5,635
Pension	-	-	5,000	13,500	-
OPEB	6,752	5,324	2,619	6,644	4,264
SCXEA labor for FY2020	-	-	-	4,256	-
Homeless programs	250	-	-	-	-
Gas tax	-	2,087	2,087	2,087	-
Other programs	13,953	19,280	37,325	46,052	49,405
Assigned:					
Unrealized investment gains	732	-	-	381	1,960
Unassigned	<u>\$ 26,649</u>	<u>\$ 24,739</u>	<u>\$ 25,021</u>	<u>\$ 32,923</u>	<u>\$ 50,007</u>

**City of Sacramento**  
**Assessed Value and Estimated Actual Value of Taxable Property**  
**Last Ten Fiscal Years**

(in thousands)

Fiscal Year End June 30	Gross Assessed Value <sup>(1)</sup>				Exemptions	Net Assessed Taxable Value	Total Direct Tax Rate <sup>(3)</sup>
	Real Property	Personal Property	Public Utility <sup>(2)</sup>	Total			
2011	\$ 36,388,660	\$ 1,742,824	\$ 11,977	\$ 38,143,461	\$ 496,459	\$ 37,647,002	1.00
2012	35,267,406	1,711,462	12,132	36,991,000	488,888	36,502,112	1.00
2013	34,332,037	1,626,943	13,157	35,972,137	477,326	35,494,811	1.00
2014	35,829,529	1,546,891	12,381	37,388,801	464,546	36,924,255	1.00
2015	37,918,666	1,585,876	18,173	39,522,715	455,212	39,067,503	1.00
2016	39,823,777	1,513,519	9,267	41,346,563	448,778	40,897,785	1.00
2017	42,300,010	1,623,203	9,193	43,932,406	446,690	43,485,716	1.00
2018	45,389,674	1,692,375	8,974	47,091,023	445,647	46,645,376	1.00
2019	48,919,753	1,868,599	8,701	50,797,053	444,652	50,352,401	1.00
2020	53,124,698	1,869,844	9,185	55,003,727	444,470	54,559,257	1.00

Notes: (1) Article XIII A, added to California Constitution by Proposition 13 in 1978, fixed the base for valuation of property subject to taxes at the full cash value appeared on the Assessor's 1975-76 assessment roll. Therefore, full cash value can be increased to reflect:

- a) annual inflation up to 2%;
- b) current market value at time of ownership change;
- c) market value for new construction.

Estimated actual value of taxable property cannot be easily determined as the property in the City is not reassessed annually. Reassessment normally occurs when ownership changes.

(2) The decrease in public utility assessed value is primarily due to the transfer of the downtown railyards from a railroad company to a private developer and the City.

(3) This 1% is shared by all taxing agencies for which the subject property resides within.



# Exhibit C

**City of Sacramento  
Principal Property Taxpayers  
For the Fiscal Year and Nine Years Ago**

(in thousands)

Taxpayer	2020			2011		
	Assessed Valuation	Rank	Percentage of Total Assessed Valuation	Assessed Valuation	Rank	Percentage of Total Assessed Valuation
Sacramento Kings	\$ 403,605	1	0.74 %	-	-	-
BRE Depot Park Land LLC	217,223	2	0.40	-	-	-
SG Downtown	200,213	3	0.37	-	-	-
400 Capitol Mall Owner LP	182,725	4	0.33	-	-	-
Pac West Office Equities	177,237	5	0.32	-	-	-
M/H Realty Partners VI LP	169,567	6	0.31	-	-	-
SRI Eleven 621 Capitol Mall LLC	164,220	7	0.30	-	-	-
Arden Fair Associates	150,210	8	0.28	\$ 130,636	4	0.34 %
500 Capitol Mall LLC	144,555	9	0.27	-	-	-
GV/HI PK Tower Owner LLC	125,368	10	0.23	-	-	-
621 Capitol Mall LLC	-	-	-	114,166	8	0.30
Hines Sacramento Wells Fargo	-	-	-	593,478	1	1.55
CIM & 980 9th St Sacramento	-	-	-	322,978	2	0.85
Buzz Oats LLC	-	-	-	157,570	3	0.41
Downtown Plaza LLC	-	-	-	130,533	5	0.34
Sutter Community Hospitals	-	-	-	127,661	6	0.33
Verizon	-	-	-	118,144	7	0.31
Comcast Cable	-	-	-	108,769	9	0.29
1415 Meridian Plaza LLC	-	-	-	87,592	10	0.23
	<u>1,934,923</u>		<u>3.55</u>	<u>1,891,527</u>		<u>4.95</u>
All other taxpayers	<u>52,624,334</u>		<u>96.45</u>	<u>35,755,475</u>		<u>95.05</u>
Total	<u>\$ 54,559,257</u>		<u>100.00 %</u>	<u>\$ 37,647,002</u>		<u>100.00 %</u>

## Exhibit D

## GENERAL FUND OBLIGATION DEBT SERVICE, AS OF JUNE 30, 2020

Fiscal Year	1993 Lease Revenue Bonds, Series A&B	2016 Refunding H Street Complex	2006 Capital Improvement Revenue Bonds, Series B	2006 Capital Improvement Revenue Bonds, Series E	2015 Lease Revenue Bonds (Golden 1 Center)	2015 Revenue Refunding Bonds	Total General Fund-related Leases & Loans Amount	Total Debt Service Obligations Amount
FY21	15,348,515	671,315	3,942,040	9,035,250.00	18,378,689	21,082,763	1,121,975	69,580,547
FY22	-	672,683	3,941,923	10,749,050.00	18,378,701	19,645,288	138,659	53,526,303
FY23	-	673,696	3,940,606	20,588,900.00	18,289,067	9,928,813	69,330	53,490,411
FY24	-	669,283	3,937,750	20,121,668.75	18,289,067	9,922,438	-	52,940,206
FY25	-	674,515	3,933,765	20,020,668.75	18,289,286	9,925,688	-	52,843,922
FY26	-	669,250	3,928,351	20,036,856.25	18,286,258	9,898,313	-	52,819,027
FY27	-	673,630	3,926,060	20,030,900.00	18,289,420	9,904,438	-	52,824,447
FY28	-	672,442	3,926,294	20,031,225.00	18,287,643	9,909,388	-	52,826,991
FY29	-	670,899	3,923,604	20,127,975.00	18,285,364	9,896,838	-	52,904,680
FY30	-	673,859	3,917,692	20,128,787.50	18,286,739	9,897,256	-	52,904,333
FY31	-	676,251	3,908,259	20,128,793.75	18,285,638	5,854,175	-	48,853,116
FY32	-	668,146	3,909,556	20,130,500.00	18,286,217	5,844,050	-	48,838,469
FY33	-	334,686	3,900,987	20,136,150.00	18,282,349	5,394,175	-	48,048,347
FY34	-	-	3,892,251	3,632,925.00	18,283,188	5,384,550	-	31,192,914
FY35	-	-	3,892,453	-	18,282,324	5,130,175	-	27,304,951
FY36	-	-	3,880,993	-	18,283,630	5,120,800	-	27,285,423
FY37	-	-	3,872,424	-	18,280,697	5,120,400	-	27,273,521
FY38	-	-	-	-	18,282,397	-	-	18,282,397
FY39	-	-	-	-	18,282,040	-	-	18,282,040
FY40	-	-	-	-	18,278,216	-	-	18,278,216
FY41	-	-	-	-	18,279,516	-	-	18,279,516
FY42	-	-	-	-	18,278,967	-	-	18,278,967
FY43	-	-	-	-	18,279,878	-	-	18,279,878
FY44	-	-	-	-	18,275,276	-	-	18,275,276
FY45	-	-	-	-	18,273,469	-	-	18,273,469
FY46	-	-	-	-	18,277,204	-	-	18,277,204
FY47	-	-	-	-	18,273,943	-	-	18,273,943
FY48	-	-	-	-	18,271,713	-	-	18,271,713
FY49	-	-	-	-	18,272,978	-	-	18,272,978
FY50	-	-	-	-	18,269,919	-	-	18,269,919
<b>Total</b>	<b>15,348,515</b>	<b>8,400,655</b>	<b>66,575,004</b>	<b>244,899,650</b>	<b>548,639,793</b>	<b>157,859,544</b>	<b>1,329,964</b>	<b>1,043,053,125</b>

Source: City of Sacramento



# **GASB 68 Accounting Report**

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**CalPERS ID: 7903930500**  
**Valuation Rate Plan Identifier: 1209**

**Prepared for**  
**City of Sacramento**  
**Miscellaneous Plan,**  
**an Agent Multiple-Employer Defined**  
**Benefit Pension Plan**

**Measurement Date of June 30, 2019**

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## **Appendix A – Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions**

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## **Appendix B – Interest and Total Projected Earnings**

Interest on Total Pension Liability and Total Projected Earnings	B-1
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## Actuarial Certification

This report provides disclosure and reporting information as required under Governmental Accounting Standards Board Statement 68 (GASB 68) for the Miscellaneous Plan of the City of Sacramento (the "Plan"), an Agent Multiple-Employer Defined Benefit Pension Plan participating in the California Public Employees' Retirement System (CalPERS), for the measurement period ended June 30, 2019.

This report is to be viewed solely for the purpose of financial accounting requirements. Any usage of the contents provided in this report for purposes other than financial accounting requirements would be inappropriate.

This accounting report relies on liabilities and related validation work performed by the CalPERS Actuarial Office as part of the June 30, 2018 annual funding valuation for the Plan. The census data and benefit provisions underlying the liabilities were prepared as of June 30, 2018 and certified as part of the annual funding valuation by the CalPERS Actuarial Office. The June 30, 2018 liabilities, which were rolled forward to June 30, 2019 and used for this accounting report, are based on actuarial assumptions adopted by the CalPERS Board of Administration and consistent with the requirements of GASB 68. The assumptions and methods are internally consistent and reasonable for this Plan. The asset information used in this accounting report is provided by the CalPERS Financial Office.

With the provided liability and asset information, the total pension liability, net pension liability, deferred inflows and outflows and pension expense were developed for the measurement period using standard actuarial techniques.

The undersigned is an actuary for CalPERS, who is a member of the American Academy of Actuaries and the Society of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.



MAY SHUANG YU, ASA, MAAA

Senior Pension Actuary, CalPERS

## Introduction

This is the GASB 68 accounting report for the measurement date June 30, 2019. Notes to the Agent Multiple-Employer Defined Benefit Pension Plan GASB 68 accounting reports are in a separate document, which may be accessed on the CalPERS website at [www.calpers.ca.gov](http://www.calpers.ca.gov).

GASB 68 requires that the reported results must pertain to liability and asset information within certain defined timeframes. For this report, the following timeframes are used.

Valuation Date	June 30, 2018
Measurement Date	June 30, 2019
Measurement Period	July 1, 2018 to June 30, 2019

### **Pension Plan Fiduciary Net Position**

The plan fiduciary net position disclosed in your GASB 68 accounting report may differ from the plan assets reported in your funding actuarial valuation report due to several reasons. For example, for the accounting reports, CalPERS must keep items such as deficiency reserves and fiduciary self-insurance included as assets. These amounts are excluded for rate setting purposes in your funding actuarial valuation.

## Changes in the Net Pension Liability

The following table shows the changes in net pension liability recognized over the measurement period.

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability/(Asset) (c) = (a) – (b)
<b>Balance at: 06/30/2018</b>	<b>\$1,324,669,340</b>	<b>\$973,081,747</b>	<b>\$351,587,593</b>
<b>Beginning of Year Adjustment</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Adjusted Balance at: 06/30/2018</b>	<b>\$1,324,669,340</b>	<b>\$973,081,747</b>	<b>\$351,587,593</b>
<b>Changes Recognized for the Measurement Period:</b>			
Service Cost	29,053,385		29,053,385
Interest on Total Pension Liability	94,760,263		94,760,263
Changes of Benefit Terms	0		0
Changes of Assumptions	0		0
Differences Between Expected and Actual Experience	12,969,987		12,969,987
Net Plan to Plan Resource Movement		494	(494)
Contributions – Employer		34,101,948	(34,101,948)
Contributions – Employees		14,288,578	(14,288,578)
Net Investment Income		64,092,297	(64,092,297)
Benefit Payments, Including Refunds of Employee Contributions	(53,695,328)	(53,695,328)	0
Administrative Expense		(694,412)	694,412
Other Miscellaneous Income/(Expense)		2,256	(2,256)
<b>Net Changes During 2018-19</b>	<b>\$83,088,307</b>	<b>\$58,095,833</b>	<b>\$24,992,474</b>
<b>Balance at: 06/30/2019</b>	<b>\$1,407,757,647</b>	<b>\$1,031,177,580</b>	<b>\$376,580,067</b>

### Sensitivity of the Net Pension Liability to Changes in the Discount Rate

	Discount Rate -1% 6.15%	Current Discount Rate 7.15%	Discount Rate + 1% 8.15%
Plan's Net Pension Liability/(Asset)	\$576,471,795	\$376,580,067	\$212,266,335

## **Pension Expense/(Income) for Measurement Period Ended June 30, 2019**

<b>Description</b>	<b>Amount</b>
Service Cost	\$29,053,385
Interest on Total Pension Liability	94,760,263
Changes of Benefit Terms	0
Recognized Changes of Assumptions	18,982,005
Recognized Differences Between Expected and Actual Experience	6,615,418
Net Plan to Plan Resource Movement	(494)
Employee Contributions	(14,288,578)
Projected Earnings on Pension Plan Investments	(69,245,857)
Recognized Differences Between Projected and Actual Earnings on Plan Investments	12,008,043
Administrative Expense	694,412
Other Miscellaneous (Income)/Expense	(2,256)
<b>Total Pension Expense/(Income)</b>	<b>\$78,576,341</b>



## Deferred Outflows and Deferred Inflows of Resources Related to Pensions

The following table presents deferred outflows and deferred inflows of resources related to pensions as of June 30, 2019. Note that no adjustments have been made for contributions subsequent to the measurement date. Appropriate treatment of any contributions made after the measurement date is the responsibility of the employer.

	Deferred Outflows of Resources	Deferred Inflows of Resources
Changes of Assumptions	\$0	\$(2,451,253)
Differences Between Expected and Actual Experience	10,641,768	0
Net Difference Between Projected and Actual Earnings on Pension Plan Investments	0	(5,074,463)
<b>Total</b>	<b>\$10,641,768</b>	<b>\$(7,525,716)</b>

Amounts reported as deferred outflows and deferred inflows of resources related to pensions will be recognized in future pension expense as follows:

Measurement Periods Ended June 30:	Deferred Outflows/(Inflows) of Resources
2020	\$7,619,703
2021	(4,079,216)
2022	(1,455,147)
2023	1,030,712
2024	0
Thereafter	0

Note: For employers with June 30 year-end, the fiscal year will be one year later than the measurement period. For example, the 2020 measurement period presented in the above table will be listed as year 2021 in the employer's fiscal year ending June 30, 2020 financial statements.

### Expected Average Remaining Service Lifetime (EARSL)

The EARSL for the Plan for the measurement period ending June 30, 2019 is 2.9 years, which was obtained by dividing the total service years of 27,787 (the sum of remaining service lifetimes of the active employees) by 9,629 (the total number of participants: active, inactive, and retired). Inactive employees and retirees have remaining service lifetimes equal to 0. Total future service is based on the members' probability of decrementing due to an event other than receiving a cash refund.

## Schedules of Required Supplementary Information

### Schedule of Changes in Net Pension Liability and Related Ratios for the Measurement Periods Ended June 30

Measurement Period	2019	2018	2017	2016	2015
<b>TOTAL PENSION LIABILITY:</b>					
Service Cost	\$29,053,385	\$28,403,688	\$27,795,727	\$23,374,624	\$22,342,045
Interest on Total Pension Liability	94,760,263	89,060,339	84,334,185	79,514,856	74,834,991
Changes of Benefit Terms	0	0	0	0	0
Changes of Assumptions	0	(7,898,485)	75,969,675	0	(20,152,867)
Difference Between Expected and Actual Experience	12,969,987	6,909,054	(837,981)	(333,340)	(8,865,289)
Benefit Payments, Including Refunds of Employee Contributions	(53,695,328)	(48,383,999)	(42,304,813)	(37,980,223)	(34,390,309)
<b>Net Change in Total Pension Liability</b>	<b>\$83,088,307</b>	<b>\$68,090,597</b>	<b>\$144,956,793</b>	<b>\$64,575,917</b>	<b>\$33,768,571</b>
Total Pension Liability – Beginning	1,324,669,340	1,256,578,743	1,111,621,950	1,047,046,033	1,013,277,462
<b>Total Pension Liability – Ending (a)</b>	<b>\$1,407,757,647</b>	<b>\$1,324,669,340</b>	<b>\$1,256,578,743</b>	<b>\$1,111,621,950</b>	<b>\$1,047,046,033</b>
<b>PLAN FIDUCIARY NET POSITION</b>					
Contributions – Employer	\$34,101,948	\$29,514,351	\$28,719,315	\$25,962,718	\$22,826,829
Contributions – Employee	14,288,578	12,633,667	12,190,145	11,991,032	11,302,316
Net Investment Income	64,092,297	76,765,652	91,481,199	4,260,663	18,046,623
Benefit Payments, Including Refunds of Employee Contributions	(53,695,328)	(48,383,999)	(42,304,813)	(37,980,223)	(34,390,309)
Net Plan to Plan Resource Movement	494	(1,746)	73,647	530,976	(3,066,289)
Administrative Expense	(694,412)	(1,412,810)	(1,207,275)	(495,742)	(921,940)
Other Miscellaneous Income/(Expense) <sup>1</sup>	2,256	(2,682,950)	0	0	0
<b>Net Change in Fiduciary Net Position</b>	<b>\$58,095,833</b>	<b>\$66,432,165</b>	<b>\$88,952,218</b>	<b>\$4,269,424</b>	<b>\$13,797,230</b>
Plan Fiduciary Net Position – Beginning <sup>2</sup>	\$973,081,747	\$906,649,582	\$817,697,364	\$813,427,940	\$799,630,710
Plan Fiduciary Net Position – Ending (b)	1,031,177,580	973,081,747	906,649,582	817,697,364	813,427,940
<b>Plan Net Pension Liability/(Asset) – (a)-(b)</b>	<b>\$376,580,067</b>	<b>\$351,587,593</b>	<b>\$349,929,161</b>	<b>\$293,924,586</b>	<b>\$233,618,093</b>
<b>Plan Fiduciary Net Position as a Percentage of the Total Pension Liability</b>	<b>73.25%</b>	<b>73.46%</b>	<b>72.15%</b>	<b>73.56%</b>	<b>77.69%</b>
Covered Payroll <sup>3</sup>	\$185,822,739	\$181,331,004	\$176,795,109	\$166,402,958	\$157,449,221
<b>Plan Net Pension Liability/(Asset) as a Percentage of Covered-Employee Payroll</b>	<b>202.66%</b>	<b>193.89%</b>	<b>197.93%</b>	<b>176.63%</b>	<b>148.38%</b>

<sup>1</sup> During Fiscal Year 2017-18, as a result of Governmental Accounting Standards Board Statement (GASB) No. 75, Accounting and Financial Reporting for Postemployment Benefit Plans Other than Pensions (GASB 75), CalPERS reported its proportionate share of activity related to postemployment benefits for participation in the State of California's agent OPEB plan. Accordingly, CalPERS recorded a one-time expense as a result of the adoption of GASB 75.

Additionally, CalPERS employees participate in various State of California agent pension plans and during Fiscal Year 2017-18, CalPERS recorded a correction to previously reported financial statements to properly reflect its proportionate share of activity related to pensions in accordance with GASB Statement No. 68, Accounting and Financial Reporting for Pensions (GASB 68).

<sup>2</sup> Includes any beginning of year adjustment.

<sup>3</sup> Includes one year's payroll growth using 2.75 percent payroll growth assumption for fiscal years ended June 30, 2018-19; 3.00 percent payroll growth assumption for fiscal years ended June 30, 2014-17.

## Schedules of Required Supplementary Information (continued)

Measurement Period	2014			
<b>TOTAL PENSION LIABILITY:</b>				
Service Cost	\$23,109,946			
Interest on Total Pension Liability	70,942,490			
Changes of Benefit Terms	0			
Changes of Assumptions	0			
Difference Between Expected and Actual Experience	0			
Benefit Payments, Including Refunds of Employee Contributions	(30,239,753)			
<b>Net Change in Total Pension Liability</b>	<b>\$63,812,683</b>			
Total Pension Liability – Beginning	949,464,779			
<b>Total Pension Liability – Ending (a)</b>	<b>\$1,013,277,462</b>			
<b>PLAN FIDUCIARY NET POSITION</b>				
Contributions – Employer	\$21,613,131			
Contributions – Employee	11,670,231			
Net Investment Income	118,325,674			
Benefit Payments, Including Refunds of Employee Contributions	(30,239,753)			
Net Plan to Plan Resource Movement	0			
Administrative Expense	0			
Other Miscellaneous Income/(Expense) <sup>1</sup>	0			
<b>Net Change in Fiduciary Net Position</b>	<b>\$121,369,283</b>			
Plan Fiduciary Net Position – Beginning <sup>2</sup>	\$678,261,427			
Plan Fiduciary Net Position – Ending (b)	799,630,710			
<b>Plan Net Pension Liability/(Asset) – (a)-(b)</b>	<b>\$213,646,752</b>			
<b>Plan Fiduciary Net Position as a Percentage of the Total Pension Liability</b>	<b>78.92%</b>			
Covered Payroll <sup>3</sup>	\$156,032,311			
<b>Plan Net Pension Liability/(Asset) as a Percentage of Covered-Employee Payroll</b>	<b>136.92%</b>			

<sup>1</sup> During Fiscal Year 2017-18, as a result of Governmental Accounting Standards Board Statement (GASB) No. 75, Accounting and Financial Reporting for Postemployment Benefit Plans Other than Pensions (GASB 75), CalPERS reported its proportionate share of activity related to postemployment benefits for participation in the State of California's agent OPEB plan. Accordingly, CalPERS recorded a one-time expense as a result of the adoption of GASB 75.

Additionally, CalPERS employees participate in various State of California agent pension plans and during Fiscal Year 2017-18, CalPERS recorded a correction to previously reported financial statements to properly reflect its proportionate share of activity related to pensions in accordance with GASB Statement No. 68, Accounting and Financial Reporting for Pensions (GASB 68).

<sup>2</sup> Includes any beginning of year adjustment.

<sup>3</sup> Includes one year's payroll growth using 2.75 percent payroll growth assumption for fiscal years ended June 30, 2018-19; 3.00 percent payroll growth assumption for fiscal years ended June 30, 2014-17.

## Schedules of Required Supplementary Information (continued)

### Notes to Schedule of Changes in Net Pension Liability and Related Ratios:

Benefit Changes: The figures above do not include any liability impact that may have resulted from plan changes which occurred after the June 30, 2018 valuation date. This applies for voluntary benefit changes as well as any offers of Two Years Additional Service Credit (a.k.a. Golden Handshakes).

Changes of Assumptions: None in 2019. In 2018, demographic assumptions and inflation rate were changed in accordance to the CalPERS Experience Study and Review of Assumptions December 2017. There were no changes in the discount rate. In 2017, the discount rate was reduced from 7.65 percent to 7.15 percent. In 2016, there were no changes. In 2015, amounts reported reflect an adjustment of the discount rate from 7.5 percent (net of administrative expense) to 7.65 percent (without a reduction for pension plan administrative expense). In 2014, amounts reported were based on the 7.5 percent discount rate.

### Schedule of Plan Contributions for the Fiscal Years Ended June 30<sup>1</sup>

Employer Fiscal Year End	2019	2018	2017	2016	2015	2014
Actuarially Determined Contribution <sup>2</sup>	\$34,101,948	\$29,514,351	\$28,719,315	\$25,962,718	\$22,826,829	\$21,613,131
Contributions in Relation to the Actuarially Determined Contribution <sup>2</sup>	(34,101,948)	(29,514,351)	(28,719,315)	(25,962,718)	(22,826,829)	(21,613,131)
Contribution Deficiency (Excess)	\$0	\$0	\$0	\$0	\$0	\$0
Covered Payroll <sup>3</sup>	\$185,822,739	\$181,331,004	\$176,795,109	\$166,402,958	\$157,449,221	\$156,032,311
Contributions as a Percentage of Covered Payroll <sup>3</sup>	18.35%	16.28%	16.24%	15.60%	14.50%	13.85%

<sup>1</sup> As prescribed in GASB 68, paragraph 46, the information presented in the Schedule of Plan Contributions should also be presented as of the employer's most recent fiscal year-end. The employer is responsible for determining this information as prescribed by the standard as this data is not available to CalPERS.

<sup>2</sup> Employers are assumed to make contributions equal to the actuarially determined contributions. However, some employers may choose to make additional contributions towards their unfunded liability. Employer contributions for such plans exceed the actuarially determined contributions.

<sup>3</sup> Includes one year's payroll growth using 2.75 percent payroll growth assumption for fiscal years ended June 30, 2018-19; 3.00 percent payroll growth assumption for fiscal years ended June 30, 2014-17.

**Notes to Schedule of Plan Contributions:**

The actuarial methods and assumptions used to set the actuarially determined contributions for Fiscal Year 2018-19 were derived from the June 30, 2016 funding valuation report.

Actuarial Cost Method	Entry Age Normal
Amortization Method/Period	For details, see June 30, 2016 Funding Valuation Report.
Asset Valuation Method	Fair Value of Assets. For details, see June 30, 2016 Funding Valuation Report.
Inflation	2.75%
Salary Increases	Varies by Entry Age and Service
Payroll Growth	3.0%
Investment Rate of Return	7.375% Net of Pension Plan Investment and Administrative Expenses; includes Inflation.
Retirement Age	The probabilities of Retirement are based on the 2014 CalPERS Experience Study for the period from 1997 to 2011.
Mortality	The probabilities of mortality are based on the 2014 CalPERS Experience Study for the period from 1997 to 2011. Pre-retirement and Post-retirement mortality rates include 20 years of projected mortality improvement using Scale BB published by the Society of Actuaries.

Other Information:

For changes to previous years' information, refer to past GASB 68 reports.

## Appendices

- **Appendix A – Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions**
- **Appendix B – Interest and Total Projected Earnings**

## **Appendix A**

### **Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions**

- Schedule of Changes of Assumptions
- Deferred Outflows of Resources and Deferred Inflows of Resources Arising From Changes of Assumptions
- Schedule of Differences Between Expected and Actual Experience
- Deferred Outflows of Resources and Deferred Inflows of Resources Arising From Differences Between Expected and Actual Experience
- Schedule of Differences Between Projected and Actual Earnings on Pension Plan Investments
- Deferred Outflows of Resources and Deferred Inflows of Resources Arising From Differences Between Projected and Actual Earnings on Pension Plan Investments
- Summary of Recognized Deferred Outflows of Resources and Deferred Inflows of Resources

**Schedule of Changes of Assumptions**

**Increase (Decrease) in Pension Expense Arising From the Recognition of the Effects of Changes of Assumptions**

Measurement Date	Changes of Assumptions	Remaining Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising From the Recognition of the Effects of Changes of Assumptions						
			2019	2020	2021	2022	2023	2024	Thereafter
2014	\$0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2015	(20,152,867)	0.0	0	0	0	0	0	0	0
2016	0	0.0	0	0	0	0	0	0	0
2017	75,969,675	0.8	21,705,621	0	0	0	0	0	0
2018	(7,898,485)	1.9	(2,723,616)	(2,451,253)	0	0	0	0	0
2019	0	0.0	0	0	0	0	0	0	0
<b>Net Increase (Decrease) in Pension Expense</b>			<b>\$18,982,005</b>	<b>\$(2,451,253)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>



**Deferred Outflows of Resources and Deferred Inflows of Resources Arising From Changes of Assumptions**

Measurement Date	Increase in Total Pension Liability (a)	Decrease in Total Pension Liability (b)	Amounts Recognized in Pension Expense Through June 30, 2019 (c)	Balances at June 30, 2019	
				Deferred Outflows of Resources (a) – (c)	Deferred Inflows of Resources (b) – (c)
2014	\$0	\$0	\$0	\$0	\$0
2015	0	(20,152,867)	(20,152,867)	0	0
2016	0	0	0	0	0
2017	75,969,675	0	75,969,675	0	0
2018	0	(7,898,485)	(5,447,232)	0	(2,451,253)
2019	0	0	0	0	0
				<b>\$0</b>	<b>\$(2,451,253)</b>

**Schedule of Differences Between Expected and Actual Experience**

**Increase (Decrease) in Pension Expense Arising From the Recognition of the Effects of Differences Between Expected and Actual Experience**

Measurement Date	Differences Between Expected and Actual Experience	Remaining Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising From the Recognition of the Effects of Differences Between Expected and Actual Experience						
			2019	2020	2021	2022	2023	2024	Thereafter
2014	\$0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2015	(8,865,289)	0.0	0	0	0	0	0	0	0
2016	(333,340)	0.0	0	0	0	0	0	0	0
2017	(837,981)	0.8	(239,423)	0	0	0	0	0	0
2018	6,909,054	1.9	2,382,432	2,144,190	0	0	0	0	0
2019	12,969,987	2.9	4,472,409	4,472,409	4,025,169	0	0	0	0
<b>Net Increase (Decrease) in Pension Expense</b>			<b>\$6,615,418</b>	<b>\$6,616,599</b>	<b>\$4,025,169</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

**Deferred Outflows of Resources and Deferred Inflows of Resources Arising From Differences Between Expected and Actual Experience**

Measurement Date	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in Pension Expense Through June 30, 2019 (c)	Balances at June 30, 2019	
				Deferred Outflows of Resources (a) – (c)	Deferred Inflows of Resources (b) – (c)
2014	\$0	\$0	\$0	\$0	\$0
2015	0	(8,865,289)	(8,865,289)	0	0
2016	0	(333,340)	(333,340)	0	0
2017	0	(837,981)	(837,981)	0	0
2018	6,909,054	0	4,764,864	2,144,190	0
2019	12,969,987	0	4,472,409	8,497,578	0
				<b>\$10,641,768</b>	<b>\$0</b>

**Schedule of Differences Between Projected and Actual Earnings on Pension Plan Investments**

**Increase (Decrease) in Pension Expense Arising From the Recognition of the Differences  
 Between Projected and Actual Earnings on Pension Plan Investments**

Measurement Date	Differences Between Projected and Actual Earnings on Pension Plan Investments	Remaining Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising From the Recognition of the Differences Between Projected and Actual Earnings on Pension Plan Investments						
			2019	2020	2021	2022	2023	2024	Thereafter
2014	\$(67,539,546)	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2015	42,768,440	1.0	8,553,688	0	0	0	0	0	0
2016	57,793,697	2.0	11,558,739	11,558,741	0	0	0	0	0
2017	(33,246,191)	3.0	(6,649,238)	(6,649,238)	(6,649,239)	0	0	0	0
2018	(12,429,291)	4.0	(2,485,858)	(2,485,858)	(2,485,858)	(2,485,859)	0	0	0
2019	5,153,560	5.0	1,030,712	1,030,712	1,030,712	1,030,712	1,030,712	0	0
<b>Net Increase (Decrease) in Pension Expense</b>			<b>\$12,008,043</b>	<b>\$3,454,357</b>	<b>\$(8,104,385)</b>	<b>\$(1,455,147)</b>	<b>\$1,030,712</b>	<b>\$0</b>	<b>\$0</b>

**Deferred Outflows of Resources and Deferred Inflows of Resources Arising From Differences Between Projected and Actual Earnings on Pension Plan Investments**

Measurement Date	Investment Earnings Less Than Projected (a)	Investment Earnings Greater Than Projected (b)	Amounts Recognized in Pension Expense Through June 30, 2019 (c)	Balances at June 30, 2019	
				Deferred Outflows of Resources (d) = (a) – (c)	Deferred Inflows of Resources (e) = (b) – (c)
2014	\$0	\$(67,539,546)	\$(67,539,546)	\$0	\$0
2015	42,768,440	0	42,768,440	0	0
2016	57,793,697	0	46,234,956	11,558,741	0
2017	0	(33,246,191)	(19,947,714)	0	(13,298,477)
2018	0	(12,429,291)	(4,971,716)	0	(7,457,575)
2019	5,153,560	0	1,030,712	4,122,848	0
				<b>\$15,681,589</b>	<b>\$(20,756,052)</b>
				<b>Net Deferred Outflows/(Inflows) of Resources</b>	
				<b>(d) + (e)</b>	
				<b>\$(5,074,463)</b>	

**Note:** GASB 68 paragraph 33 requires that deferred outflows of resources and deferred inflows of resources arising from differences between projected and actual pension plan investment earnings in different measurement periods should be aggregated and reported as a net deferred outflow or inflow.

**Summary of Recognized Deferred Outflows of Resources and Deferred Inflows of Resources**

	Net Increase (Decrease) in Pension Expense						
	2019	2020	2021	2022	2023	2024	Thereafter
Changes of Assumptions	\$18,982,005	\$(2,451,253)	\$0	\$0	\$0	\$0	\$0
Differences Between Expected and Actual Experience	6,615,418	6,616,599	4,025,169	0	0	0	0
Net Differences Between Projected and Actual Earnings on Pension Plan Investments	12,008,043	3,454,357	(8,104,385)	(1,455,147)	1,030,712	0	0
<b>Grand Total</b>	<b>\$37,605,466</b>	<b>\$7,619,703</b>	<b>\$(4,079,216)</b>	<b>\$(1,455,147)</b>	<b>\$1,030,712</b>	<b>\$0</b>	<b>\$0</b>

## **Appendix B**

### **Interest and Total Projected Earnings**

- Interest on Total Pension Liability and Total Projected Earnings

**Interest on Total Pension Liability and Total Projected Earnings**

<b>Interest on Total Pension Liability</b>	<b>Amount for Period (a)</b>	<b>Portion of Period (b)</b>	<b>Interest Rate (c)</b>	<b>Interest on the Total Pension Liability (a) X (b) X (c)</b>
Beginning Total Pension Liability	\$1,324,669,340	100%	7.15%	\$94,713,858
Changes of Benefit Terms	0	100%	7.15%	0
Changes of Assumptions	0	100%	7.15%	0
Difference Between Expected and Actual Experience	12,969,987	100%	7.15%	927,354
Service Cost	29,053,385	50%	7.15%	1,038,659
Benefit Payments, Including Refunds of Employee Contributions	(53,695,328)	50%	7.15%	(1,919,608)
<b>Total Interest on Total Pension Liability</b>				<b>\$94,760,263</b>

<b>Projected Earnings on Pension Plan Investments</b>	<b>Amount for Period (a)</b>	<b>Portion of Period (b)</b>	<b>Projected Rate of Return (c)</b>	<b>Projected Earnings (a) X (b) X (c)</b>
Beginning Plan Fiduciary Net Position Excluding Receivables <sup>1</sup>	\$971,493,795	100%	7.15%	\$69,461,806
Net Plan to Plan Resource Movement	494	50%	7.15%	18
Employer Contributions	34,101,948	50%	7.15%	1,219,145
Employee Contributions <sup>2</sup>	14,244,484	50%	7.15%	509,240
Benefit Payments, Including Refunds of Employee Contributions	(53,695,328)	50%	7.15%	(1,919,608)
Administrative Expense	(694,412)	50%	7.15%	(24,825)
Other Miscellaneous Income/(Expense)	2,256	50%	7.15%	81
<b>Total Projected Earnings</b>				<b>\$69,245,857</b>

<sup>1</sup> Includes any beginning of year adjustment. Contribution receivables for employee service buybacks, totaling \$1,587,952 as of June 30, 2018, were excluded for purposes of calculating projected earnings on pension plan investments.

<sup>2</sup> The increase/(decrease) in contribution receivables for employee service buybacks, totaling \$44,094 during the fiscal year 2018-19, were excluded for purposes of calculating projected earnings on pension plan investments.





# **GASB 68 Accounting Report**

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**CalPERS ID: 7903930500**  
**Valuation Rate Plan Identifier: 1210**

**Prepared for**  
**City of Sacramento**  
**Safety Plan,**  
**an Agent Multiple-Employer Defined**  
**Benefit Pension Plan**

**Measurement Date of June 30, 2019**

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## **Appendix A – Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions**

Schedule of Changes of Assumptions	A-1
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## **Appendix B – Interest and Total Projected Earnings**

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## Actuarial Certification

This report provides disclosure and reporting information as required under Governmental Accounting Standards Board Statement 68 (GASB 68) for the Safety Plan of the City of Sacramento (the “Plan”), an Agent Multiple-Employer Defined Benefit Pension Plan participating in the California Public Employees’ Retirement System (CalPERS), for the measurement period ended June 30, 2019.

This report is to be viewed solely for the purpose of financial accounting requirements. Any usage of the contents provided in this report for purposes other than financial accounting requirements would be inappropriate.

This accounting report relies on liabilities and related validation work performed by the CalPERS Actuarial Office as part of the June 30, 2018 annual funding valuation for the Plan. The census data and benefit provisions underlying the liabilities were prepared as of June 30, 2018 and certified as part of the annual funding valuation by the CalPERS Actuarial Office. The June 30, 2018 liabilities, which were rolled forward to June 30, 2019 and used for this accounting report, are based on actuarial assumptions adopted by the CalPERS Board of Administration and consistent with the requirements of GASB 68. The assumptions and methods are internally consistent and reasonable for this Plan. The asset information used in this accounting report is provided by the CalPERS Financial Office.

With the provided liability and asset information, the total pension liability, net pension liability, deferred inflows and outflows and pension expense were developed for the measurement period using standard actuarial techniques.

The undersigned is an actuary for CalPERS, who is a member of the American Academy of Actuaries and the Society of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.



MAY SHUANG YU, ASA, MAAA

Senior Pension Actuary, CalPERS

## Introduction

This is the GASB 68 accounting report for the measurement date June 30, 2019. Notes to the Agent Multiple-Employer Defined Benefit Pension Plan GASB 68 accounting reports are in a separate document, which may be accessed on the CalPERS website at [www.calpers.ca.gov](http://www.calpers.ca.gov).

GASB 68 requires that the reported results must pertain to liability and asset information within certain defined timeframes. For this report, the following timeframes are used.

Valuation Date	June 30, 2018
Measurement Date	June 30, 2019
Measurement Period	July 1, 2018 to June 30, 2019

### **Pension Plan Fiduciary Net Position**

The plan fiduciary net position disclosed in your GASB 68 accounting report may differ from the plan assets reported in your funding actuarial valuation report due to several reasons. For example, for the accounting reports, CalPERS must keep items such as deficiency reserves and fiduciary self-insurance included as assets. These amounts are excluded for rate setting purposes in your funding actuarial valuation.

## Changes in the Net Pension Liability

The following table shows the changes in net pension liability recognized over the measurement period.

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability/(Asset) (c) = (a) – (b)
<b>Balance at: 06/30/2018</b>	<b>\$1,894,856,283</b>	<b>\$1,312,585,059</b>	<b>\$582,271,224</b>
<b>Beginning of Year Adjustment</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Adjusted Balance at: 06/30/2018</b>	<b>\$1,894,856,283</b>	<b>\$1,312,585,059</b>	<b>\$582,271,224</b>
<b>Changes Recognized for the Measurement Period:</b>			
Service Cost	40,221,149		40,221,149
Interest on Total Pension Liability	136,322,857		136,322,857
Changes of Benefit Terms	0		0
Changes of Assumptions	0		0
Differences Between Expected and Actual Experience	35,990,497		35,990,497
Net Plan to Plan Resource Movement		(494)	494
Contributions – Employer		49,875,203	(49,875,203)
Contributions – Employees		22,751,971	(22,751,971)
Net Investment Income		86,281,951	(86,281,951)
Benefit Payments, Including Refunds of Employee Contributions	(88,687,941)	(88,687,941)	0
Administrative Expense		(936,689)	936,689
Other Miscellaneous Income/(Expense)		3,046	(3,046)
<b>Net Changes During 2018-19</b>	<b>\$123,846,562</b>	<b>\$69,287,047</b>	<b>\$54,559,515</b>
<b>Balance at: 06/30/2019</b>	<b>\$2,018,702,845</b>	<b>\$1,381,872,106</b>	<b>\$636,830,739</b>

### Sensitivity of the Net Pension Liability to Changes in the Discount Rate

	Discount Rate -1% 6.15%	Current Discount Rate 7.15%	Discount Rate + 1% 8.15%
Plan's Net Pension Liability/(Asset)	\$921,141,390	\$636,830,739	\$404,226,136

## **Pension Expense/(Income) for Measurement Period Ended June 30, 2019**

<b>Description</b>	<b>Amount</b>
Service Cost	\$40,221,149
Interest on Total Pension Liability	136,322,857
Changes of Benefit Terms	0
Recognized Changes of Assumptions	11,547,194
Recognized Differences Between Expected and Actual Experience	7,477,776
Net Plan to Plan Resource Movement	494
Employee Contributions	(22,751,971)
Projected Earnings on Pension Plan Investments	(93,156,066)
Recognized Differences Between Projected and Actual Earnings on Plan Investments	17,266,536
Administrative Expense	936,689
Other Miscellaneous (Income)/Expense	(3,046)
<b>Total Pension Expense/(Income)</b>	<b>\$97,861,612</b>

## Deferred Outflows and Deferred Inflows of Resources Related to Pensions

The following table presents deferred outflows and deferred inflows of resources related to pensions as of June 30, 2019. Note that no adjustments have been made for contributions subsequent to the measurement date. Appropriate treatment of any contributions made after the measurement date is the responsibility of the employer.

	Deferred Outflows of Resources	Deferred Inflows of Resources
Changes of Assumptions	\$46,453,953	\$(12,354,499)
Differences Between Expected and Actual Experience	34,853,770	(6,580,500)
Net Difference Between Projected and Actual Earnings on Pension Plan Investments	0	(6,959,369)
<b>Total</b>	<b>\$81,307,723</b>	<b>\$(25,894,368)</b>

Amounts reported as deferred outflows and deferred inflows of resources related to pensions will be recognized in future pension expense as follows:

Measurement Periods Ended June 30:	Deferred Outflows/(Inflows) of Resources
2020	\$27,935,295
2021	11,049,029
2022	7,500,833
2023	7,543,946
2024	1,384,252
Thereafter	0

Note: For employers with June 30 year-end, the fiscal year will be one year later than the measurement period. For example, the 2020 measurement period presented in the above table will be listed as year 2021 in the employer's fiscal year ending June 30, 2020 financial statements.

### Expected Average Remaining Service Lifetime (EARSL)

The EARSL for the Plan for the measurement period ending June 30, 2019 is 5.2 years, which was obtained by dividing the total service years of 15,420 (the sum of remaining service lifetimes of the active employees) by 2,957 (the total number of participants: active, inactive, and retired). Inactive employees and retirees have remaining service lifetimes equal to 0. Total future service is based on the members' probability of decrementing due to an event other than receiving a cash refund.

## Schedules of Required Supplementary Information

### Schedule of Changes in Net Pension Liability and Related Ratios for the Measurement Periods Ended June 30

Measurement Period	2019	2018	2017	2016	2015
<b>TOTAL PENSION LIABILITY:</b>					
Service Cost	\$40,221,149	\$38,385,859	\$37,372,520	\$31,672,063	\$29,653,042
Interest on Total Pension Liability	136,322,857	127,930,127	123,131,887	118,821,553	112,331,793
Changes of Benefit Terms	0	0	0	0	0
Changes of Assumptions	0	(17,241,688)	107,046,066	0	(28,604,249)
Difference Between Expected and Actual Experience	35,990,497	3,954,107	(15,086,475)	14,397,639	(592,555)
Benefit Payments, Including Refunds of Employee Contributions	(88,687,941)	(82,998,648)	(78,231,814)	(74,572,323)	(70,544,699)
<b>Net Change in Total Pension Liability</b>	<b>\$123,846,562</b>	<b>\$70,029,757</b>	<b>\$174,232,184</b>	<b>\$90,318,932</b>	<b>\$42,243,332</b>
Total Pension Liability – Beginning	1,894,856,283	1,824,826,526	1,650,594,342	1,560,275,410	1,518,032,078
<b>Total Pension Liability – Ending (a)</b>	<b>\$2,018,702,845</b>	<b>\$1,894,856,283</b>	<b>\$1,824,826,526</b>	<b>\$1,650,594,342</b>	<b>\$1,560,275,410</b>
<b>PLAN FIDUCIARY NET POSITION</b>					
Contributions – Employer	\$49,875,203	\$41,588,489	\$40,608,891	\$36,000,897	\$30,798,271
Contributions – Employee	22,751,971	21,563,568	18,980,493	18,465,310	15,564,873
Net Investment Income	86,281,951	104,660,890	125,585,855	4,971,102	25,341,704
Benefit Payments, Including Refunds of Employee Contributions	(88,687,941)	(82,998,648)	(78,231,814)	(74,572,323)	(70,544,699)
Net Plan to Plan Resource Movement	(494)	(3,555)	(73,647)	(340)	533
Administrative Expense	(936,689)	(1,921,893)	(1,665,625)	(697,193)	(1,287,544)
Other Miscellaneous Income/(Expense) <sup>1</sup>	3,046	(3,649,707)	0	0	0
<b>Net Change in Fiduciary Net Position</b>	<b>\$69,287,047</b>	<b>\$79,239,144</b>	<b>\$105,204,153</b>	<b>\$(15,832,547)</b>	<b>\$(126,862)</b>
Plan Fiduciary Net Position – Beginning <sup>2</sup>	\$1,312,585,059	\$1,233,345,915	\$1,128,141,762	\$1,143,974,309	\$1,144,101,171
Plan Fiduciary Net Position – Ending (b)	1,381,872,106	1,312,585,059	1,233,345,915	1,128,141,762	1,143,974,309
<b>Plan Net Pension Liability/(Asset) – (a)-(b)</b>	<b>\$636,830,739</b>	<b>\$582,271,224</b>	<b>\$591,480,611</b>	<b>\$522,452,580</b>	<b>\$416,301,101</b>
<b>Plan Fiduciary Net Position as a Percentage of the Total Pension Liability</b>	<b>68.45%</b>	<b>69.27%</b>	<b>67.59%</b>	<b>68.35%</b>	<b>73.32%</b>
Covered Payroll <sup>3</sup>	\$138,717,533	\$132,205,472	\$126,437,920	\$120,120,082	\$112,067,431
<b>Plan Net Pension Liability/(Asset) as a Percentage of Covered-Employee Payroll</b>	<b>459.08%</b>	<b>440.43%</b>	<b>467.80%</b>	<b>434.94%</b>	<b>371.47%</b>

<sup>1</sup> During Fiscal Year 2017-18, as a result of Governmental Accounting Standards Board Statement (GASB) No. 75, Accounting and Financial Reporting for Postemployment Benefit Plans Other than Pensions (GASB 75), CalPERS reported its proportionate share of activity related to postemployment benefits for participation in the State of California's agent OPEB plan. Accordingly, CalPERS recorded a one-time expense as a result of the adoption of GASB 75.

Additionally, CalPERS employees participate in various State of California agent pension plans and during Fiscal Year 2017-18, CalPERS recorded a correction to previously reported financial statements to properly reflect its proportionate share of activity related to pensions in accordance with GASB Statement No. 68, Accounting and Financial Reporting for Pensions (GASB 68).

<sup>2</sup> Includes any beginning of year adjustment.

<sup>3</sup> Includes one year's payroll growth using 2.75 percent payroll growth assumption for fiscal years ended June 30, 2018-19; 3.00 percent payroll growth assumption for fiscal years ended June 30, 2014-17.



## Schedules of Required Supplementary Information (continued)

Measurement Period	2014			
<b>TOTAL PENSION LIABILITY:</b>				
Service Cost	\$29,538,887			
Interest on Total Pension Liability	107,188,618			
Changes of Benefit Terms	0			
Changes of Assumptions	0			
Difference Between Expected and Actual Experience	0			
Benefit Payments, Including Refunds of Employee Contributions	(66,215,114)			
<b>Net Change in Total Pension Liability</b>	<b>\$70,512,391</b>			
Total Pension Liability – Beginning	1,447,519,687			
<b>Total Pension Liability – Ending (a)</b>	<b>\$1,518,032,078</b>			
<b>PLAN FIDUCIARY NET POSITION</b>				
Contributions – Employer	\$27,934,662			
Contributions – Employee	16,094,362			
Net Investment Income	171,794,710			
Benefit Payments, Including Refunds of Employee Contributions	(66,215,114)			
Net Plan to Plan Resource Movement	0			
Administrative Expense	0			
Other Miscellaneous Income/(Expense) <sup>1</sup>	0			
<b>Net Change in Fiduciary Net Position</b>	<b>\$149,608,620</b>			
Plan Fiduciary Net Position – Beginning <sup>2</sup>	\$994,492,551			
Plan Fiduciary Net Position – Ending (b)	1,144,101,171			
<b>Plan Net Pension Liability/(Asset) – (a)-(b)</b>	<b>\$373,930,907</b>			
<b>Plan Fiduciary Net Position as a Percentage of the Total Pension Liability</b>	<b>75.37%</b>			
Covered Payroll <sup>3</sup>	\$107,176,397			
<b>Plan Net Pension Liability/(Asset) as a Percentage of Covered-Employee Payroll</b>	<b>348.89%</b>			

<sup>1</sup> During Fiscal Year 2017-18, as a result of Governmental Accounting Standards Board Statement (GASB) No. 75, Accounting and Financial Reporting for Postemployment Benefit Plans Other than Pensions (GASB 75), CalPERS reported its proportionate share of activity related to postemployment benefits for participation in the State of California's agent OPEB plan. Accordingly, CalPERS recorded a one-time expense as a result of the adoption of GASB 75.

Additionally, CalPERS employees participate in various State of California agent pension plans and during Fiscal Year 2017-18, CalPERS recorded a correction to previously reported financial statements to properly reflect its proportionate share of activity related to pensions in accordance with GASB Statement No. 68, Accounting and Financial Reporting for Pensions (GASB 68).

<sup>2</sup> Includes any beginning of year adjustment.

<sup>3</sup> Includes one year's payroll growth using 2.75 percent payroll growth assumption for fiscal years ended June 30, 2018-19; 3.00 percent payroll growth assumption for fiscal years ended June 30, 2014-17.

## Schedules of Required Supplementary Information (continued)

### Notes to Schedule of Changes in Net Pension Liability and Related Ratios:

Benefit Changes: The figures above do not include any liability impact that may have resulted from plan changes which occurred after the June 30, 2018 valuation date. This applies for voluntary benefit changes as well as any offers of Two Years Additional Service Credit (a.k.a. Golden Handshakes).

Changes of Assumptions: None in 2019. In 2018, demographic assumptions and inflation rate were changed in accordance to the CalPERS Experience Study and Review of Assumptions December 2017. There were no changes in the discount rate. In 2017, the discount rate was reduced from 7.65 percent to 7.15 percent. In 2016, there were no changes. In 2015, amounts reported reflect an adjustment of the discount rate from 7.5 percent (net of administrative expense) to 7.65 percent (without a reduction for pension plan administrative expense). In 2014, amounts reported were based on the 7.5 percent discount rate.

### Schedule of Plan Contributions for the Fiscal Years Ended June 30<sup>1</sup>

Employer Fiscal Year End	2019	2018	2017	2016	2015	2014
Actuarially Determined Contribution <sup>2</sup>	\$49,875,203	\$41,588,489	\$40,608,891	\$36,000,897	\$30,798,271	\$27,934,662
Contributions in Relation to the Actuarially Determined Contribution <sup>2</sup>	(49,875,203)	(41,588,489)	(40,608,891)	(36,000,897)	(30,798,271)	(27,934,662)
Contribution Deficiency (Excess)	\$0	\$0	\$0	\$0	\$0	\$0
Covered Payroll <sup>3</sup>	\$138,717,533	\$132,205,472	\$126,437,920	\$120,120,082	\$112,067,431	\$107,176,397
Contributions as a Percentage of Covered Payroll <sup>3</sup>	35.95%	31.46%	32.12%	29.97%	27.48%	26.06%

<sup>1</sup> As prescribed in GASB 68, paragraph 46, the information presented in the Schedule of Plan Contributions should also be presented as of the employer's most recent fiscal year-end. The employer is responsible for determining this information as prescribed by the standard as this data is not available to CalPERS.

<sup>2</sup> Employers are assumed to make contributions equal to the actuarially determined contributions. However, some employers may choose to make additional contributions towards their unfunded liability. Employer contributions for such plans exceed the actuarially determined contributions.

<sup>3</sup> Includes one year's payroll growth using 2.75 percent payroll growth assumption for fiscal years ended June 30, 2018-19; 3.00 percent payroll growth assumption for fiscal years ended June 30, 2014-17.

**Notes to Schedule of Plan Contributions:**

The actuarial methods and assumptions used to set the actuarially determined contributions for Fiscal Year 2018-19 were derived from the June 30, 2016 funding valuation report.

Actuarial Cost Method	Entry Age Normal
Amortization Method/Period	For details, see June 30, 2016 Funding Valuation Report.
Asset Valuation Method	Fair Value of Assets. For details, see June 30, 2016 Funding Valuation Report.
Inflation	2.75%
Salary Increases	Varies by Entry Age and Service
Payroll Growth	3.0%
Investment Rate of Return	7.375% Net of Pension Plan Investment and Administrative Expenses; includes Inflation.
Retirement Age	The probabilities of Retirement are based on the 2014 CalPERS Experience Study for the period from 1997 to 2011.
Mortality	The probabilities of mortality are based on the 2014 CalPERS Experience Study for the period from 1997 to 2011. Pre-retirement and Post-retirement mortality rates include 20 years of projected mortality improvement using Scale BB published by the Society of Actuaries.

Other Information:

For changes to previous years' information, refer to past GASB 68 reports.

## Appendices

- **Appendix A – Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions**
- **Appendix B – Interest and Total Projected Earnings**

## **Appendix A**

### **Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions**

- Schedule of Changes of Assumptions
- Deferred Outflows of Resources and Deferred Inflows of Resources Arising From Changes of Assumptions
- Schedule of Differences Between Expected and Actual Experience
- Deferred Outflows of Resources and Deferred Inflows of Resources Arising From Differences Between Expected and Actual Experience
- Schedule of Differences Between Projected and Actual Earnings on Pension Plan Investments
- Deferred Outflows of Resources and Deferred Inflows of Resources Arising From Differences Between Projected and Actual Earnings on Pension Plan Investments
- Summary of Recognized Deferred Outflows of Resources and Deferred Inflows of Resources

**Schedule of Changes of Assumptions**

**Increase (Decrease) in Pension Expense Arising From the Recognition of the Effects of Changes of Assumptions**

Measurement Date	Changes of Assumptions	Remaining Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising From the Recognition of the Effects of Changes of Assumptions							
			2019	2020	2021	2022	2023	2024	Thereafter	
2014	\$0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2015	(28,604,249)	1.3	(5,397,028)	(1,619,109)	0	0	0	0	0	0
2016	0	0.0	0	0	0	0	0	0	0	0
2017	107,046,066	3.3	20,197,371	20,197,371	20,197,371	6,059,211	0	0	0	0
2018	(17,241,688)	4.3	(3,253,149)	(3,253,149)	(3,253,149)	(3,253,149)	(975,943)	0	0	0
2019	0	0.0	0	0	0	0	0	0	0	0
<b>Net Increase (Decrease) in Pension Expense</b>			<b>\$11,547,194</b>	<b>\$15,325,113</b>	<b>\$16,944,222</b>	<b>\$2,806,062</b>	<b>\$(975,943)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

**Deferred Outflows of Resources and Deferred Inflows of Resources Arising From Changes of Assumptions**

Measurement Date	Increase in Total Pension Liability (a)	Decrease in Total Pension Liability (b)	Amounts Recognized in Pension Expense Through June 30, 2019 (c)	Balances at June 30, 2019	
				Deferred Outflows of Resources (a) – (c)	Deferred Inflows of Resources (b) – (c)
2014	\$0	\$0	\$0	\$0	\$0
2015	0	(28,604,249)	(26,985,140)	0	(1,619,109)
2016	0	0	0	0	0
2017	107,046,066	0	60,592,113	46,453,953	0
2018	0	(17,241,688)	(6,506,298)	0	(10,735,390)
2019	0	0	0	0	0
				<b>\$46,453,953</b>	<b>\$(12,354,499)</b>

**Schedule of Differences Between Expected and Actual Experience**

**Increase (Decrease) in Pension Expense Arising From the Recognition of the Effects of Differences Between Expected and Actual Experience**

Measurement Date	Differences Between Expected and Actual Experience	Remaining Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising From the Recognition of the Effects of Differences Between Expected and Actual Experience						
			2019	2020	2021	2022	2023	2024	Thereafter
2014	\$0	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2015	(592,555)	1.3	(111,803)	(33,540)	0	0	0	0	0
2016	14,397,639	2.2	2,768,777	2,768,777	553,754	0	0	0	0
2017	(15,086,475)	3.3	(2,846,505)	(2,846,505)	(2,846,505)	(853,950)	0	0	0
2018	3,954,107	4.3	746,058	746,058	746,058	746,058	223,817	0	0
2019	35,990,497	5.2	6,921,249	6,921,249	6,921,249	6,921,249	6,921,249	1,384,252	0
<b>Net Increase (Decrease) in Pension Expense</b>			<b>\$7,477,776</b>	<b>\$7,556,039</b>	<b>\$5,374,556</b>	<b>\$6,813,357</b>	<b>\$7,145,066</b>	<b>\$1,384,252</b>	<b>\$0</b>



**Deferred Outflows of Resources and Deferred Inflows of Resources Arising From Differences Between Expected and Actual Experience**

Measurement Date	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in Pension Expense Through June 30, 2019 (c)	Balances at June 30, 2019	
				Deferred Outflows of Resources (a) – (c)	Deferred Inflows of Resources (b) – (c)
2014	\$0	\$0	\$0	\$0	\$0
2015	0	(592,555)	(559,015)	0	(33,540)
2016	14,397,639	0	11,075,108	3,322,531	0
2017	0	(15,086,475)	(8,539,515)	0	(6,546,960)
2018	3,954,107	0	1,492,116	2,461,991	0
2019	35,990,497	0	6,921,249	29,069,248	0
				<b>\$34,853,770</b>	<b>\$(6,580,500)</b>

**Schedule of Differences Between Projected and Actual Earnings on Pension Plan Investments**

**Increase (Decrease) in Pension Expense Arising From the Recognition of the Differences  
 Between Projected and Actual Earnings on Pension Plan Investments**

Measurement Date	Differences Between Projected and Actual Earnings on Pension Plan Investments	Remaining Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising From the Recognition of the Differences Between Projected and Actual Earnings on Pension Plan Investments						
			2019	2020	2021	2022	2023	2024	Thereafter
2014	\$(98,188,251)	0.0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2015	61,061,962	1.0	12,212,394	0	0	0	0	0	0
2016	81,619,456	2.0	16,323,891	16,323,892	0	0	0	0	0
2017	(45,755,815)	3.0	(9,151,163)	(9,151,163)	(9,151,163)	0	0	0	0
2018	(17,467,045)	4.0	(3,493,409)	(3,493,409)	(3,493,409)	(3,493,409)	0	0	0
2019	6,874,115	5.0	1,374,823	1,374,823	1,374,823	1,374,823	1,374,823	0	0
<b>Net Increase (Decrease) in Pension Expense</b>			<b>\$17,266,536</b>	<b>\$5,054,143</b>	<b>\$(11,269,749)</b>	<b>\$(2,118,586)</b>	<b>\$1,374,823</b>	<b>\$0</b>	<b>\$0</b>

**Deferred Outflows of Resources and Deferred Inflows of Resources Arising From Differences Between Projected and Actual Earnings on Pension Plan Investments**

Measurement Date	Investment Earnings Less Than Projected (a)	Investment Earnings Greater Than Projected (b)	Amounts Recognized in Pension Expense Through June 30, 2019 (c)	Balances at June 30, 2019	
				Deferred Outflows of Resources (d) = (a) – (c)	Deferred Inflows of Resources (e) = (b) – (c)
2014	\$0	\$(98,188,251)	\$(98,188,251)	\$0	\$0
2015	61,061,962	0	61,061,962	0	0
2016	81,619,456	0	65,295,564	16,323,892	0
2017	0	(45,755,815)	(27,453,489)	0	(18,302,326)
2018	0	(17,467,045)	(6,986,818)	0	(10,480,227)
2019	6,874,115	0	1,374,823	5,499,292	0
				<b>\$21,823,184</b>	<b>\$(28,782,553)</b>
				<b>Net Deferred Outflows/(Inflows) of Resources</b>	
				<b>(d) + (e)</b>	
				<b>\$(6,959,369)</b>	

**Note:** GASB 68 paragraph 33 requires that deferred outflows of resources and deferred inflows of resources arising from differences between projected and actual pension plan investment earnings in different measurement periods should be aggregated and reported as a net deferred outflow or inflow.

**Summary of Recognized Deferred Outflows of Resources and Deferred Inflows of Resources**

	<b>Net Increase (Decrease) in Pension Expense</b>						
	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>Thereafter</b>
Changes of Assumptions	\$11,547,194	\$15,325,113	\$16,944,222	\$2,806,062	\$(975,943)	\$0	\$0
Differences Between Expected and Actual Experience	7,477,776	7,556,039	5,374,556	6,813,357	7,145,066	1,384,252	0
Net Differences Between Projected and Actual Earnings on Pension Plan Investments	17,266,536	5,054,143	(11,269,749)	(2,118,586)	1,374,823	0	0
<b>Grand Total</b>	<b>\$36,291,506</b>	<b>\$27,935,295</b>	<b>\$11,049,029</b>	<b>\$7,500,833</b>	<b>\$7,543,946</b>	<b>\$1,384,252</b>	<b>\$0</b>

## **Appendix B**

### **Interest and Total Projected Earnings**

- Interest on Total Pension Liability and Total Projected Earnings

**Interest on Total Pension Liability and Total Projected Earnings**

<b>Interest on Total Pension Liability</b>	<b>Amount for Period (a)</b>	<b>Portion of Period (b)</b>	<b>Interest Rate (c)</b>	<b>Interest on the Total Pension Liability (a) X (b) X (c)</b>
Beginning Total Pension Liability	\$1,894,856,283	100%	7.15%	\$135,482,224
Changes of Benefit Terms	0	100%	7.15%	0
Changes of Assumptions	0	100%	7.15%	0
Difference Between Expected and Actual Experience	35,990,497	100%	7.15%	2,573,321
Service Cost	40,221,149	50%	7.15%	1,437,906
Benefit Payments, Including Refunds of Employee Contributions	(88,687,941)	50%	7.15%	(3,170,594)
<b>Total Interest on Total Pension Liability</b>				<b>\$136,322,857</b>

<b>Projected Earnings on Pension Plan Investments</b>	<b>Amount for Period (a)</b>	<b>Portion of Period (b)</b>	<b>Projected Rate of Return (c)</b>	<b>Projected Earnings (a) X (b) X (c)</b>
Beginning Plan Fiduciary Net Position Excluding Receivables <sup>1</sup>	\$1,311,298,779	100%	7.15%	\$93,757,863
Net Plan to Plan Resource Movement	(494)	50%	7.15%	(18)
Employer Contributions	49,875,203	50%	7.15%	1,783,039
Employee Contributions <sup>2</sup>	22,913,401	50%	7.15%	819,154
Benefit Payments, Including Refunds of Employee Contributions	(88,687,941)	50%	7.15%	(3,170,594)
Administrative Expense	(936,689)	50%	7.15%	(33,487)
Other Miscellaneous Income/(Expense)	3,046	50%	7.15%	109
<b>Total Projected Earnings</b>				<b>\$93,156,066</b>

<sup>1</sup> Includes any beginning of year adjustment. Contribution receivables for employee service buybacks, totaling \$1,286,280 as of June 30, 2018, were excluded for purposes of calculating projected earnings on pension plan investments.

<sup>2</sup> The increase/(decrease) in contribution receivables for employee service buybacks, totaling \$(161,430) during the fiscal year 2018-19, were excluded for purposes of calculating projected earnings on pension plan investments.



**City of Sacramento**

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**Sacramento City Employees' Retirement System**

**June 30, 2020**

**Actuarial Valuation**

December 3, 2020





**ACTUARIAL VALUATION**  
**CITY OF SACRAMENTO**  
**SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM (SCERS)**  
**DEFINED BENEFIT PLAN**

We are pleased to present the results of our June 30, 2020 actuarial valuation of the Sacramento City Employees' Retirement System (SCERS).

The purpose of this valuation is to:

- Determine the System's June 30, 2020 Funded Status, and
- Calculate the fiscal year 2021/22 Actuarially Determined Contribution (ADC).

The information in this report may not be appropriate for purposes other than System funding but may be useful to the City for the System's financial management. Future valuations may differ significantly if the System's experience differs from our assumptions or if there are changes in plan design, actuarial methods or actuarial assumptions. The project scope did not include an analysis of this potential variation.

The valuation is based on the System's benefit provisions summarized in Section 9, employee data, and on the System's financial information, all furnished by the City. We reviewed the financial and employee data for reasonableness, including comparing to prior year data, but did not perform an audit.

To the best of our knowledge, this report is complete and accurate and has been conducted using generally accepted actuarial principles and practices. As members of the American Academy of Actuaries, meeting Academy Qualification Standards, we certify the actuarial results and opinions herein.

Respectfully submitted,



Mary Elizabeth Redding, FSA, MAAA, EA  
Vice President



Deanna Van Valer, ASA, MAAA, EA  
Assistant Vice President



Katherine Moore, ASA, MAAA  
Associate Actuary

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# SECTION 1

## EXECUTIVE SUMMARY

Following are the valuation results. See notes following the table for a description of terms. Results from the June 30, 2019 valuation are provided for comparative purposes.

	<i>-----amounts in \$000's-----</i>		
	<b>June 30, 2019</b>	<b>June 30, 2020</b>	<b>% change</b>
<b>■ Participant Counts</b>			
• Actives	8	5	-37.5%
• Terminated Vesteds & Reciprocals	8	5	-37.5%
• Service Retirees	555	506	-8.8%
• Disableds	104	96	-7.7%
• Beneficiaries	314	312	-0.6%
• Total	989	924	-6.6%
<b>■ Actuarial Liabilities</b>			
• Present Value of Projected Benefits	\$ 313,179	\$ 296,709	-5.3%
• Actuarial Accrued Liability	313,073	296,667	-5.2%
<b>■ Assets</b>			
• Market Value of Assets	281,568	263,137	-6.5%
• Approximate Annual Rate of Return	6.7%	2.8%	
• Actuarial Value of Assets	277,234	266,646	-3.8%
• Approximate Annual Rate of Return	7.3%	5.8%	
<b>■ Plan Funded Status</b>			
• Actuarial Accrued Liability	313,073	296,667	-5.2%
• Actuarial Value of Plan Assets	277,234	266,646	-3.8%
• Unfunded Actuarial Accrued Liability	35,839	30,021	-16.2%
• Funded Ratio	88.6%	89.9%	1.5%
• Funded Ratio, Market Value Basis	89.9%	88.7%	-1.3%
	<b>2020/21</b>	<b>2021/22</b>	<b>% change</b>
<b>■ Annual Cost<sup>1</sup></b>	3,822	3,479	-9.0%
<b>■ Annual Cost (% Proj. Plan Payroll)<sup>1</sup></b>	1066.7%	1998.3%	
<b>■ Annual Cost (% Proj. City Payroll)</b>	1.1%	0.9%	

<sup>1</sup> See page 11 for details.

# SECTION 1

## EXECUTIVE SUMMARY

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### **Purpose of Actuarial Valuation**

The actual costs of a defined benefit plan are determined entirely by the amount of the benefit promise, the actual salaries and service of the plan participants, and how long they and their beneficiaries live to receive payments. An actuarial valuation is a mathematical model which attempts to quantify this actual cost by setting assumptions that, it is hoped, duplicate reality as closely as possible. In addition, the actuarial methodology provides a reasonable plan, or method, towards funding the expected plan costs. This information assists the plan trustees so they can make informed decisions regarding plan investments and how much in contributions will be required from the employer to eventually fully pay the plan's costs.

### **Summary Information & Results**

The Sacramento City Employees' Retirement System (SCERS) is a closed defined benefit pension plan. It has not accepted new members since January 28, 1977, and only 5 active members (out of a total plan membership of 924) remain.

Since the last valuation, the plan experienced overall gains on liabilities and losses on market assets. Plan liabilities increased less than expected, by \$3.7 million. This was mostly due to retirees and beneficiaries not living as long as expected, but this was offset by greater COLA than expected<sup>2</sup>. Market value return on assets was less than expected, about 2.8% for the year which resulted in a loss of \$1.6 million on the actuarial (smoothed) value of assets.

One assumption was changed since the prior valuation.

- The mortality improvement projection was updated to the Society of Actuaries most recent table, MP-2019. This decreased liabilities further by \$1.6 million.

After the assumption changes, the July 1, 2020 total plan unfunded actuarial accrued liability (UAAL) is \$30.0 million, as compared to expected UAAL of \$33.6 million.

The plan's funded ratio on an actuarial value of assets basis is 89.9%, an increase from 88.6% in the prior valuation. The plan's funded ratio using market value of assets basis is 88.7%, a decrease from 89.9% in the prior valuation.

We recommend keeping the amortization period at a rolling 12-year period for the 2021/22 recommended contribution. The average life expectancy of the plan's retirees is now 11.6 years, slightly down from 11.8 years as of June 30, 2019. We believe a 12-year amortization will result in the unfunded liability being paid off in a period of time relating to the remaining lifetime of plan participants, while also providing sufficient contribution smoothing for plan management. The 3-year asset smoothing method provides some smoothing of contribution volatility. The City's contribution has decreased from \$3.822 million for fiscal year 2020/21 to \$3.479 million for fiscal year 2021/22. The prior valuation projected a 2021/22 contribution of \$3.469 million. The 2021/22 contribution is less than projected due to the factors discussed above.

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<sup>2</sup> The CPI used for COLA increases was 3.3%, so the full 3% COLA was paid, and COLA banks were increased. The valuation assumes CPI of 2.75%. (Index used is CPI-U for San Francisco/Oakland/Hayward area.)

# SECTION 1

## EXECUTIVE SUMMARY

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### Discussion of Plan Risks

Actuarial Standard of Practice No. 51, Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions, requires the actuary to assess and disclose the risk that actual future measurements may differ significantly from expected future measurements.

This plan is considered a very mature pension plan since almost all of its liabilities are for retirees, and there are almost no remaining active employees with very little associated payroll. The following table presents various measures illustrating the plan's maturity:

	June 30, 2019	June 30, 2020
<b>■ Maturity Ratios</b>		
• Inactive AAL/total AAL	98.9%	99.4%
• Inactive participant count/total count	99.2%	99.5%
• Benefit payments/market value of assets	10.9%	11.2%
• Benefit payments/employer contributions	791.5%	834.6%

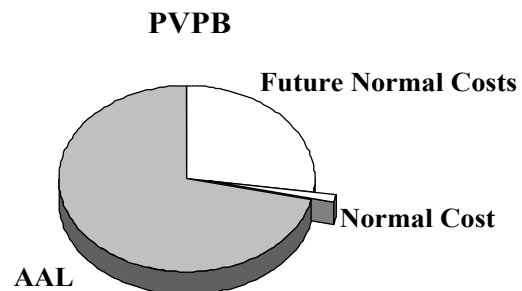
A very mature pension plan presents unique risks. The plan has negative cash flow (benefit payments exceed contributions), and benefit payments are relatively large compared to the asset value. The plan's investment manager must carefully manage the plan's liquidity needs as the plan "winds down" over the next 50 or more years. In addition to investment risk (investment returns being different than expected), asset/liability mismatch risk (changes in asset values not matched by changes in liabilities) could be significant for this plan. The plan is also subject to longevity risk (the potential that participants will live longer than projected) but we believe this risk is less significant than investment and asset/liability mismatch risk.

The scope of this valuation did not include a risk assessment - an evaluation of the potential impacts of these factors on the plan's funded status or projected employer contributions. However, we have included the following to assist in the plan's management:

- Table of expected benefit payments for the next 50 years
- Sensitivity analysis: Contributions calculated under different discount rates
- Sensitivity analysis: Contributions calculated under different amortization periods

### Definitions

The Present Value of Projected Benefits (PVPB) is the present value of all future benefits for current plan participants. The Actuarial Accrued Liability (AAL) represents the portion of the PVPB attributable to past service. The AAL is recognized over service through the date a participant is expected to commence benefits. Therefore, the AAL is equal to the PVPB for current retirees. The Normal Cost is the portion of the PVPB allocated or earned during the year following the valuation date.



## SECTION 2

### LIABILITY INFORMATION & FUNDED STATUS

A comparison of the Present Value of Benefits, Actuarial Accrued Liability, Employer Normal Cost, and the Funded Ratio for the current and prior valuations follows. (Note that numbers throughout the report may not add due to rounding.)

(amounts in \$000's)

	June 30, 2019	June 30, 2020
<b>Present Value of Projected Benefits</b>		
■ Active Employees	\$ 3,423	\$ 1,722
■ Vested Terminated & Reciprocals	927	536
■ Service Retirees	225,202	212,531
■ Disabled Participants	30,748	28,435
■ Beneficiaries	52,878	53,486
■ Total	313,179	296,709

#### Actuarial Accrued Liability

■ Active Employees	\$ 3,318	\$ 1,680
■ Vested Terminated & Reciprocals	927	536
■ Service Retirees	225,202	212,531
■ Disabled Participants	30,748	28,435
■ Beneficiaries	52,878	53,486
■ Total	313,073	296,667

2019/20

2020/21

#### Normal Cost

■ Employer Normal Cost (beginning of year)	\$ 15	\$ 3
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June 30, 2019

June 30, 2020

#### Plan Funded Status

■ Total Actuarial Accrued Liability	\$ 313,073	\$ 296,667
■ Actuarial Value of Plan Assets	277,234	266,646
■ Unfunded Actuarial Accrued Liability	35,839	30,021
■ Funded Ratio	88.6%	89.9%
■ Market Value of Assets	\$ 281,568	\$ 263,137
■ Funded Ratio – Market Value Basis	89.9%	88.7%

## SECTION 2

### LIABILITY INFORMATION & FUNDED STATUS

---

Details of the June 30, 2020 Present Value of Benefits, Actuarial Accrued Liability and Employer Normal Cost by employee category:

(amounts in \$000's)

	Safety	Miscellaneous	Total
<b>Present Value of Projected Benefits</b>			
■ Active Employees	\$ -	\$ 1,722	\$ 1,722
■ Vested Terminated & Reciprocal	-	536	536
■ Service Retirees	12,714	199,817	212,531
■ Disabled Participants	11,682	16,753	28,435
■ Beneficiaries	16,128	37,359	53,486
■ Total	40,524	256,185	296,709

#### Actuarial Accrued Liability

■ Active Employees	-	1,680	1,680
■ Vested Terminated & Reciprocal	-	536	536
■ Service Retirees	12,714	199,817	212,531
■ Disabled Participants	11,682	16,753	28,435
■ Beneficiaries	16,128	37,359	53,486
■ Total	40,524	256,144	296,667

	Safety	Miscellaneous	Total
<b>Normal Cost</b>			
■ Employer Normal Cost (on June 30, 2020)	\$ -	\$ 3	\$ 3

## SECTION 2

### LIABILITY INFORMATION & FUNDED STATUS

---

Details of the June 30, 2020 Present Value of Benefits, Actuarial Accrued Liability and Employer Normal Cost by benefit section:

(amounts in \$000's)

	Section 175	Sections 302 & 399	Total
<b>Present Value of Projected Benefits</b>			
■ Active Employees	\$ -	\$ 1,722	\$ 1,722
■ Vested Terminated & Reciprocal	65	470	536
■ Service Retirees	4,689	207,841	212,531
■ Disabled Participants	1,154	27,281	28,435
■ Beneficiaries	4,451	49,035	53,486
■ Total	<u>10,360</u>	<u>286,349</u>	<u>296,709</u>

#### Actuarial Accrued Liability

■ Active Employees	-	1,680	1,680
■ Vested Terminated & Reciprocal	65	470	536
■ Service Retirees	4,689	207,841	212,531
■ Disabled Participants	1,154	27,281	28,435
■ Beneficiaries	4,451	49,035	53,486
■ Total	<u>10,360</u>	<u>286,308</u>	<u>296,667</u>

#### Normal Cost

	Section 175	Sections 302 & 399	Total
■ Employer Normal Cost (on 6/30/20)	\$ -	\$ 3	\$ 3



## SECTION 3

### ASSET INFORMATION

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Assets for SCERS are held in trust. Trust monies may be used to pay benefits to plan participants and their beneficiaries. The trust is managed under the direction of the Administration, Investment, and Fiscal Management Board. Asset information is provided by the City of Sacramento, and has not yet been audited.

#### Asset Reconciliation – Market Value of Assets

Following reconciles the June 30, 2018 through June 30, 2019 and the June 30, 2019 through June 30, 2020 market value of assets. Numbers may not add due to rounding.

	(amounts in \$000's)	
	2018/19	2019/20
■ Beginning of Year Balance:	\$ 286,609	\$ 281,568
• Member Contributions	\$ 49	\$ 25
• City Contributions	7,507	4,410
• Investment Income	19,638	8,692
■ Total Additions	27,194	13,127
• Benefit Payments	30,880	30,455
• Member Refunds	254	2
• Investment Expenses	1,101	1,101
■ Total Deductions	32,235	31,558
■ Net Assets at End of Year	281,568	263,137
■ Approximate Return on Assets	6.7%	2.8%

## SECTION 3

### ASSET INFORMATION

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#### Asset Allocation – Market Value of Assets

The July 1, 2020 trust asset allocation is provided by the City of Sacramento and based on an allocation strategy of 30% fixed income and 70% equity. Details are shown below.

(amounts in \$000's)

	Market Value	Percentage
■ Cash & Short Term Investments	\$ 6,573	2.5%
■ Receivables	974	0.4%
■ Investments		
• US Agencies	\$ 695	0.3%
• Corporate Bonds	29,245	11.1%
• Equities	30,686	11.7%
• Exchange Traded Funds	156,156	59.3%
• Mortgage Loans	1,074	0.4%
• Municipal Bonds	40,199	15.3%
■ Total Investments	<u>258,055</u>	
■ Total Assets	265,602	
■ Other Liabilities Payable	<u>(2,465)</u>	<u>-0.9%</u>
■ Net Pension Benefit Trust Assets	263,137	100.0%

#### Target Allocation by Asset Class

The Administration, Investment and Fiscal Management Board of the Sacramento City Employees' Retirement System has not changed the asset allocation since May 3, 2018, as shown below. The fund is rebalanced each year.

	Current Allocation
■ Fixed Bonds/Real Estate	<u>30.0%</u>
Total Fixed	30.0%
■ Large Cap Growth	35.0%
■ Equity Income	27.5%
■ International Equities	<u>7.5%</u>
Total Equity	<u>70.0%</u>
Total Fixed & Equity	100.0%

# SECTION 3

## ASSET INFORMATION

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### Discount Rate Development

Bartel Associates modeled the nominal rate of return for the fund, based upon our current capital market assumptions, which include mean returns, standard deviation of returns, and correlation coefficients, as well as our assumed inflation rate. Our modeling showed a 50% likelihood that returns would average (geometric average) at least 6.75% per year and a 55% likelihood that they would average at least 6.39% per year. After adjusting for expenses and rounding, we recommend a 6.50% discount rate for the valuation. This is unchanged since the prior valuation.

Confidence Level	50%	55%	60%
■ Inflation Adjusted Return	6.75%	6.39%	6.06%
■ Investment Expenses <sup>3</sup>	<u>0.10%</u>	<u>0.10%</u>	<u>0.10%</u>
■ Net Return after Expenses	6.65%	6.29%	5.96%
■ <b>Discount Rate Assumption</b>	<b>6.50%</b>		

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<sup>3</sup> Based on average investment expenses for a typical passive investment strategy. This is not plan specific.

## SECTION 3

### ASSET INFORMATION

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#### Development of Actuarial Value of Assets

The Actuarial Value of Assets is based upon a three year smoothing of market assets. This method reduces volatility in contribution rates, and also reduces volatility in the size of the actuarial gains and losses due to asset returns. Because the plan is frozen to new membership and the membership is primarily composed of retirees and beneficiaries, it is important from a cash flow perspective that asset values used in calculating contribution rates not stray too far from market value. For this reason, a corridor of 15% around the market value is imposed upon the actuarial value.

	(amounts in \$000's)
	2019/20
<ul style="list-style-type: none"> <li>■ <b>Actuarial Value of Assets, Beginning of Year</b></li> <li> <ul style="list-style-type: none"> <li>● Contributions</li> <li>● Expected Earnings</li> <li>● Benefit Payments</li> </ul> </li> </ul>	\$ 277,234 4,435 17,188 <u>(30,457)</u>
■ Expected Actuarial Value of Assets, End of Year	268,400
■ Market Value of Assets, End of Year	263,137
■ Difference between MVA & Expected AVA	(5,263)
<ul style="list-style-type: none"> <li>■ <b>Preliminary Actuarial Value of Assets, End of Year</b>  <i>(Expected AVA + 1/3 Difference)</i></li> <li>■ Actuarial Value of Assets Corridor</li> <li> <ul style="list-style-type: none"> <li>● Cap: 115% of Market Value</li> <li>● Min: 85% of Market Value</li> </ul> </li> <li>■ <b>Actuarial Value of Assets, End of Year</b>  <i>(No greater than Cap, not less than Min)</i></li> </ul>	266,646 302,608 223,666 266,646
■ Approximate Annual Rate of Return	5.8%

## SECTION 4

### CONTRIBUTION DEVELOPMENT

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#### Actuarially Determined Contribution

Following is the development of the 2021/22 Actuarially Determined Contribution. The 2020/21 Actuarially Determined Contribution was calculated in the June 30, 2019 actuarial valuation and is shown for comparison.

	(amounts in \$000's)	
<b>Contribution Year</b>	2020/21	2021/22
■ Actuarially Determined Contribution		
• Employer Normal Cost	\$ 10	\$ 2
• UAAL Amortization <sup>4</sup>	3,812	3,477
• Total Cost	3,822	3,479
■ Projected Plan Payroll	358	174
■ Actuarially Determined Contribution (as a percent of plan payroll)		
• Employer Normal Cost	2.9%	1.0%
• UAAL Amortization	1063.8%	1997.3%
• Total Contribution	1066.7%	1998.3%
■ Projected Total City Payroll	363,821	407,290
■ Actuarially Determined Contribution (as a percent of total City payroll)		
• Employer Normal Cost	0.0%	0.0%
• UAAL Amortization	1.1%	0.9%
• Total Contribution	1.1%	0.9%

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<sup>4</sup> The Unfunded Actuarial Accrued Liability (UAAL) as of the beginning of the contribution year is being amortized as a level dollar amount over a rolling 12-year period for 2020/21 and 2021/22. As the plan continues to mature, this amortization period will be monitored.

## SECTION 5

### SCHEDULE OF FUTURE CONTRIBUTIONS

Below are the historic and projected contributions and benefit payments. City contributions for years ending 6/30/2023 and later are estimated assuming 6/30/21 and subsequent market value of assets earn 6.50% and assuming the Actuarially Determined Contribution is contributed each year. These contributions are designed to achieve 100% funding of the system.

Year Ending <sup>5</sup>	Member Contributions	City Contributions	Benefit Payments
6/30/1994	1,432,000	0	24,165,000
6/30/1995	1,320,000	0	24,565,000
6/30/1996	1,228,000	0	25,027,000
6/30/1997	1,080,000	0	23,274,000
6/30/1998	1,090,000	0	23,825,000
6/30/1999	1,136,000	0	24,249,000
6/30/2000	1,079,000	0 <sup>6</sup>	24,901,000
6/30/2001	989,000	0	25,087,000
6/30/2002	1,011,000	0	25,588,000
6/30/2003	978,000	0	26,619,000
6/30/2004	1,056,000	0	26,772,000
6/30/2005	809,000	0	27,524,000
6/30/2006	789,000	0	28,749,000
6/30/2007	699,000	0	29,604,000
6/30/2008	596,000	3,534,000	29,896,000
6/30/2009	607,000	3,159,000	30,707,000
6/30/2010	377,000	3,431,000	31,719,000
6/30/2011	342,000	10,547,000	33,003,000
6/30/2012	332,000	10,361,000	33,057,000
6/30/2013	219,000	10,573,000	33,237,000
6/30/2014	161,000	9,649,000	33,688,000
6/30/2015	82,000	9,183,000	33,791,000
6/30/2016	69,000	8,645,000	32,683,000
6/30/2017	63,000	8,645,000	32,171,000
6/30/2018	55,000	8,645,000	31,583,000
6/30/2019	49,000	7,507,000	31,134,000
6/30/2020	25,000	4,410,000	30,457,000
6/30/2021	15,000	3,822,000	29,486,000
6/30/2022	8,000	3,479,000	29,035,000
6/30/2023	5,000	3,383,000	28,556,000
6/30/2024	4,000	3,263,000	28,010,000
6/30/2025	2,000	3,128,000	27,402,000

<sup>5</sup> Information prior to 6/30/2006 valuation is taken from prior actuary's valuation report. Member contributions and benefit payments for years ending 6/30/2021 and later are estimated.

<sup>6</sup> Shown as a negative 1.367 million by prior actuary.

## SECTION 6

### ACTUARIAL (GAIN)/LOSS ANALYSIS

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The gain/loss analysis of plan assets, actuarial liability, and unfunded actuarial liability for the one year period between valuation dates:

	(amounts in \$000's)		
	Actuarial Accrued Liability (Gain)/Loss	Actuarial Value of Assets Gain/(Loss)	Unfunded Actuarial Accrued Liability (Gain)/Loss
■ <b>June 30, 2019 Actual Value</b>	\$ 313,073	\$ 277,234	\$ 35,839
■ <b>June 30, 2020 Expected Value</b>	301,915	268,281	33,634
■ COLA greater than expected	877		
■ Demographic (Gain)/Loss <sup>7</sup>	(4,532)		
■ Investment Loss		(1,629)	
■ Contributions less than expected		(6)	
■ Total (Gain)/Loss	_____	_____	(2,020)
■ <b>June 30, 2020 Prior to Changes in Assumptions</b>	298,260	266,646	31,614
■ Change in Mortality Improvement Assumption	(1,593)	_____	(1,593)
■ <b>June 30, 2020 Actual Value</b>	296,667	266,646	30,021

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<sup>7</sup> Primarily due to more retiree and beneficiary deaths than expected.

## SECTION 7

### SENSITIVITY ANALYSIS

The Plan's June 30, 2020 funded status and 2021/22 fiscal year contribution are shown below at 5.50%, 6.50%, and 7.50% discount rates.

Discount Rate	(amounts in \$000's)		
	5.50%	Current 6.50%	7.50%
■ Present Value of Projected Benefits	\$ 320,818	\$ 296,709	\$ 275,747
■ Funded Status			
• Actuarial Accrued Liability	320,764	296,667	275,714
• Actuarial Value of Assets	<u>266,646</u>	<u>266,646</u>	<u>266,646</u>
• Unfunded Actuarial Accrued Liability	54,118	30,021	9,068
■ Funded Ratio	83.1%	89.9%	96.7%
■ 2021/22 Actuarially Determined Contribution			
• Employer Normal Cost	4	2	-
• UAAL Amortization (12 years)	<u>6,147</u>	<u>3,477</u>	<u>878</u>
• Total Contribution	6,151	3,479	878
• Total Employer Contribution (as a percent of Plan payroll)	3533.1%	1998.3%	504.4%
• Total Employer Contribution (as a percent of total City payroll)	1.5%	0.9%	0.2%

The Plan's 2021/22 fiscal year contribution would increase if the amortization period of the Unfunded Actuarial Accrued Liability were shorter. Shown below are results based on the current 12-year period, as well as for 13, 11, and 10 year periods.

The average life expectancy of retirees is currently 11.6 years, down slightly from 11.8 years as of June 30, 2019. We recommend continuing to use a 12 year amortization period.

Amortization Years	(amounts in \$000's)			
	13	Recom- mended 12	11	10
■ 2021/22 Actuarially Determined Contribution				
• Employer Normal Cost	\$ 2	\$ 2	\$ 2	\$ 2
• UAAL Amortization	<u>3,299</u>	<u>3,477</u>	<u>3,690</u>	<u>3,946</u>
• Total Employer Contribution	3,301	3,479	3,692	3,948
• Total Employer Contribution (as a percent of Plan payroll)	1895.9%	1998.3%	2120.3%	2267.8%
• Total Employer Contribution (as a percent of total City payroll)	0.8%	0.9%	0.9%	1.0%



## SECTION 8

### HEADCOUNT AND BENEFIT PAYMENT PROJECTION

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#### Headcount and Benefit Payment Projection

Fiscal Year Ending June 30,	Active Count	Term Vested Count	Retiree Count	Annual Benefit Payments (000's)
2021	5	5	914	\$ 29,486
2022	2	5	885	29,035
2023	2	5	853	28,556
2024	1	5	819	28,010
2025	1	5	785	27,402
2026	0	5	749	26,749
2027	0	5	713	26,026
2028	0	5	677	25,230
2029	0	5	642	24,400
2030	0	5	606	23,539
2031	0	5	571	22,647
2032	0	5	537	21,723
2033	0	4	503	20,769
2034	0	4	469	19,783
2035	0	4	437	18,768
2036	0	4	405	17,727
2037	0	4	373	16,661
2038	0	4	343	15,578
2039	0	4	313	14,482
2040	0	3	285	13,383
2041	0	3	257	12,287
2042	0	3	231	11,203
2043	0	3	206	10,142
2044	0	2	183	9,111
2045	0	2	161	8,122
2046	0	2	140	7,181
2047	0	1	122	6,297
2048	0	1	105	5,477
2049	0	1	89	4,724
2050	0	1	76	4,041

## SECTION 8

### HEADCOUNT AND BENEFIT PAYMENT PROJECTION

---

Fiscal Year Ending June 30,	Active Count	Term Vested Count	Retiree Count	Annual Benefit Payments (000's)
2051	0	1	63	\$ 3,430
2052	0	1	53	2,888
2053	0	0	44	2,416
2054	0	0	36	2,009
2055	0	0	29	1,663
2056	0	0	24	1,375
2057	0	0	19	1,138
2058	0	0	16	946
2059	0	0	13	792
2060	0	0	10	670
2061	0	0	9	574
2062	0	0	7	499
2063	0	0	6	442
2064	0	0	5	399
2065	0	0	4	365
2066	0	0	4	339
2067	0	0	3	317
2068	0	0	3	299
2069	0	0	3	282
2070	0	0	2	267

## SECTION 9 PLAN PROVISIONS

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**A. Plan Effective Date**

Originally established effective April 1, 1935.

**B. Plan Year**

July 1 to June 30.

**C. Participation**

The plan is closed with no new members since January 28, 1977.

**D. Eligibility to Retire**

Section 175: Age 70, or age 55 and 20 years of service.

Sections 302 and 399: Age 70, or age 50 and 5 years of service.

**E. Vesting**

100% vesting with five years of participation.

**F. Average Monthly Compensation**

Average monthly salary for the 36 months prior to termination.

**G. Employee Contributions**

Each participant contributes a certain percentage based on his or her age at entry into the plan.

**H. Service Retirement Benefit**

**Section 175:**

Average Monthly Compensation times years of service times Benefit Factor. For retirement after age 65 with 20 years of service, benefit is a minimum of \$60 per month.

**Sections 302 and 399:**

Average Monthly Compensation times years of service times Benefit Factor, but no larger than 75% of final average earnings.

Benefit Factors at sample ages:

<u>Retirement Age</u>	<u>Section 175</u>	<u>Sections 302 and 399</u>
50	n/a	1.10%
55	1.10%	1.75%
60	1.67%	2.40%
65	2.44%	2.40%

## SECTION 9 PLAN PROVISIONS

---

### **I. Vested Termination Benefit**

Return of employee contributions with interest, or if the value is greater than \$500, the member may choose to leave the contributions in the system. The member may become eligible in the future for retirement, disability or death benefits.

### **J. Non-Industrial (Ordinary) Disability Benefit**

Eligibility is ten years of service.

#### **Section 175:**

With 16 2/3 years of service: 1½% of final average salary times years of service to disability.

Less than 16 2/3 years of service: Minimum of 1½% of final average salary times years of service would have earned to age 60, or 25% of final average earnings.

#### **Sections 302 and 399:**

Not Eligible for Retirement: Lesser of 1½% of Final Average Earnings times years of service or final average earnings times benefit factor at age 50 times years of service at age 50, minimum of 25% of final average earnings.

Eligible for Retirement: Maximum of retirement allowance or 25% of final average earnings.

### **K. Industrial Disability Benefit**

#### **Sections 302 and 399:**

Not Eligible for Retirement: 50% of final average earnings.

Eligible for retirement: Maximum of retirement allowance or 50% of final average earnings.

### **L. Death Benefit – Pre Retirement Eligibility**

Return of employee contributions with interest, plus 1/12 of salary in the year preceding death multiplied by the smaller of 6 or years of service.

### **M. Death Benefit – Post Retirement Eligibility**

50% of the member's benefit as if the member retired at the time of death, paid as a lifetime benefit to the spouse.

### **N. Death Benefit – Post Retirement Death**

\$500 paid to the member's estate upon death.

## SECTION 9 PLAN PROVISIONS

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### **O. Social Security Reduction at age 62**

For members participating in Social Security, their benefit will be reduced at the later of age 62 or actual retirement age. The amount of the reduction is one half of the PIA from Social Security, multiplied by the ratio of the sum of salary earned from the City to the sum of salary from all sources used in the calculation of the Social Security amount. The member's benefit under the System plus the amount received from Social Security cannot be less than the member's benefit under the System calculated with no reductions as of his retirement age. The City applies this offset to service retirees, not to disabled retirees.

### **P. Reduction Account**

A member can choose to reduce his normal contributions to the System by an amount equal to the taxes paid for Social Security coverage. At the time of retirement, the regular retirement benefit will be reduced by the actuarial equivalent of the accumulated value of the reduction of contributions.

### **Q. Cost of Living**

Benefits will be increased each July 1 by the change in the CPI for the San Francisco/Oakland area for the preceding calendar year limited to 3% (with COLA bank).

### **R. Benefit Forms**

#### **Section 175:**

Lifetime benefit to the member, which may be actuarially reduced to provide a continuance to a beneficiary.

#### **Section 302 and 399:**

Lifetime benefit to the member, with an automatic 50% continuance to the spouse.

## SECTION 10

### METHODS AND ASSUMPTIONS

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#### **Actuarial Methods**

The actuarial cost method used for this valuation is the Entry Age Normal (EAN) method. The Present Value of Projected Benefits (PVPB) is the present value of all future benefits for current plan participants. The Actuarial Accrued Liability (AAL) represents the portion of the PVPB attributable to past service. The AAL is recognized over service through the date a participant is expected to commence benefits.

We recommend amortizing the current unfunded AAL over a 12-year rolling period as a level dollar amount. Because the plan is closed the amortization period should be regularly reviewed. The Board has regularly reduced the amortization period in the recent past. Under current Board policy, when the average future life expectancy of the plan participants drops below 5 years, the amortization period will be reduced to no more than 5 years.

Plan funded status based on excess of

- 1) Value of Normal Retirement Benefit in excess of employee contributions over
- 2) Actuarial Value of Assets

The contribution generated by the current valuation will be payable for the City's fiscal year beginning one year later (2021/22). The June 30, 2019 valuation generated a contribution for fiscal year 2020/21.

The Actuarial Value of Assets is a 3-year smoothed market value. Gains and losses will be recognized over a three year period. For June 30, 2006, the first year of this method, the Actuarial Asset Value was set equal to the Market Value. The Actuarial Value of Assets will be limited by a 15% corridor. The Actuarial Value of Assets will be no greater than 115% of Market Value of Assets and no less than 85% of Market Value of Assets.

#### **Data**

The City provided participant data as of 7/1/2020. We reviewed the data, but did not perform an audit.

#### **Basis for Assumptions**

Mortality assumptions are based on CalPERS 1997-2015 experience study, since that study is based on populations similar to this plan. Mortality improvement is the Society of Actuaries Scale MP-2019. Inflation is based on our estimate for the plan's very long time horizon. The salary merit assumption is based on our expectation of overall payroll growth, due to the current age of remaining employees.

Retirement and disablement rates are insignificant due to the age of the remaining participants and are based on rates used historically.

The Social Security offset, marriage, retirement age for deferred vesteds, and reciprocal assumptions are based in part on plan experience. Due to the small number and age of remaining employees and deferred vested, these assumptions are not significant.

## SECTION 10

### METHODS AND ASSUMPTIONS

---

#### Actuarial Assumptions

Assumptions used in the valuation are as follows:

- **Discount Rate**  
6.50% net of investment expenses<sup>8</sup>. See page 9 for derivation.
- **Inflation**  
2.75%
- **Salary Scale**  
2.75% CPI  
0.50% Merit
- **Social Security Wage Base**  
3.00%
- **Termination**  
None assumed. All active employees are retirement-eligible.
- **Retirement**  
Rates vary based on age. Sample rates follow:

<u>Age</u>	<u>Non Sec 175</u>
55	6%
60	26%
65	40%
70	100%

- **Disability**  
Rates vary based on age, gender and if the disability is job-related or not. Sample rates follow:

	<u>Job Related</u>		<u>Ordinary</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
59	.00612	.00336	.01683	.00924
60	.00639	.00351	.01761	.00969
61	.00000	.00000	.00000	.00000

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<sup>8</sup> Administrative expenses are not paid from plan assets.

## SECTION 10

### METHODS AND ASSUMPTIONS

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- **Healthy Mortality**

CalPERS 1997-2015 Pre-Retirement Mortality table for males and females and CalPERS 1997-2015 Post-Retirement Mortality table for males and females. Sample rates are as follows:

<u>Age</u>	<u>Pre-Retirement</u>		<u>Post-Retirement</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
50	0.12%	0.08%	0.44%	0.39%
60	0.26%	0.17%	0.75%	0.52%
70	0.62%	0.39%	1.50%	1.06%
80	1.66%	0.94%	4.64%	3.49%
90	n/a	n/a	14.94%	11.38%
100	n/a	n/a	35.37%	30.62%

- **Post-Retirement Disabled Mortality**

For Miscellaneous retirees, CalPERS 1997-2015 Non-Work-Related Disability table for males and females. For Safety retirees, CalPERS 1997-2015 Work-Related Disability table for males and females. Sample rates are as follows:

<u>Age</u>	<u>Non-Work-Related</u>		<u>Work-Related</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
50	1.40%	1.23%	0.44%	0.39%
60	2.42%	1.52%	0.75%	0.52%
70	3.77%	2.50%	1.80%	1.27%
80	7.32%	5.38%	5.57%	4.18%
90	16.74%	14.92%	16.43%	12.52%
100	35.37%	35.05%	35.37%	30.62%

- **Mortality Improvement Projection**

Post-retirement mortality projected fully generational with Society of Actuaries Scale MP-2019. Prior valuation used mortality projected fully generational with Society of Actuaries Scale MP-2018.

- **Social Security Offset**

Monthly benefits for current retirees and vested terminated assumed to decrease at the later of age 62 or actual retirement, based on the average expected offset of future retirees.

- **Marriage**

85% of male employees and 60% of female employees are assumed to be married. Wives are assumed to be four years younger than husbands.



## SECTION 10

### METHODS AND ASSUMPTIONS

---

- **Retirement Age**

Deferred vested members covered under Section 399 are assumed to retire at age 62; those covered under Section 175 are assumed to retire at age 65.

- **Reciprocal Members**

All remaining deferred vested members are assumed to have reciprocity with other retirement systems, and their pay is assumed to increase with salary scale after separation from the City.

## SECTION 11 PARTICIPANT DATA

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### Data Summary

Following summarizes participant demographic information for the June 30, 2019 and June 30, 2020 actuarial valuations.

	June 30, 2019	June 30, 2020
<b>■ Participant Counts</b>		
• Actives	8	5
• Terminated Vesteds	5	4
• Reciprocals	3	1
• Service Retirees <sup>9</sup>	555	506
• Disableds	104	96
• Beneficiaries <sup>10</sup>	314	312
• Total	989	924
<b>■ Actives</b>		
• Average Age	65.0	66.3
• Average Service	35.9	37.0
• Salary		
> Total	\$ 536,145	\$ 330,244
> Average	67,018	66,049
• Overall City Payroll	341,277,000	382,053,000
<b>■ Terminated Vesteds &amp; Reciprocals</b>		
• Average Age	69.0	69.7
<b>■ Retirees, Disableds &amp; Beneficiaries</b>		
• Average Age	78.8	79.0
• Average Monthly Benefit	\$ 2,652	2,725
• Life expectancy	11.8	11.6

<sup>9</sup> The June 30, 2020 valuation includes one retiree eligible for benefits but not yet receiving them.

<sup>10</sup> Includes one former spouse of a deceased retiree whom the City has not been able to contact and is not yet receiving benefits.

# SECTION 11 PARTICIPANT DATA

## June 30, 2020 Participant Data

Following summarizes participant demographic information for the June 30, 2020 actuarial valuation, broken out by employee category and benefit section.

	Safety		Miscellaneous		Total
	Section 175	Section 302 & 399	Section 175	Section 302 & 399	
<b>■ Actives</b>					
• Count	-	-	-	5	5
• Average Age	n/a	n/a	n/a	66.3	66.3
• Average Service	n/a	n/a	n/a	37.0	37.0
• Projected Salary					
➤ Average	\$ -	\$ -	\$ -	66,049	66,049
➤ Total (000's)	-	-	-	330	330
<b>■ Vested Terms &amp; Reciprocals</b>					
• Count	-	-	1	4	5
• Average Age	n/a	n/a	69.6	69.7	69.7
<b>■ All Inactives</b>					
• Count	20	136	29	729	914
• Average Age	86.1	83.5	82.9	77.8	79.0
• Avg. Monthly Benefit	\$2,423	\$3,115	\$1,912	\$2,692	\$2,725
<b>■ Service Retirees</b>					
• Count	6	32	12	456	506
• Average Age	89.2	89.0	82.3	77.0	78.0
• Average Retirement Age	53.4	54.6	63.0	59.6	59.3
• Avg. Monthly Benefit	\$2,786	\$5,191	\$2,365	\$3,274	\$3,368
<b>■ Disabled Retirees</b>					
• Count	3	33	4	56	96
• Average Age	92.4	78.3	84.3	75.3	77.3
• Average Retirement Age	52.1	41.5	50.0	49.6	46.9
• Avg. Monthly Benefit	\$3,177	\$2,892	\$1,410	\$2,294	\$2,490
<b>■ Beneficiaries</b>					
• Count	11	71	13	217	312
• Average Age	82.8	83.4	83.0	80.3	81.2
• Avg. Monthly Benefit	\$2,020	\$2,284	\$1,648	\$1,573	\$1,754

## SECTION 11 PARTICIPANT DATA

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### Data Reconciliation 6/30/2019 to 6/30/2020

	Actives	Terminated		Receiving Payments			Total
		Vested	Reciprocal	Disabled	Benefic.	Retirees	
■ <b>June 30, 2019</b>	8	5	3	104	314	555	989
• New Hires	-	-	-	-	-	-	-
• Disabled	(1)	-	-	1	-	-	-
• Terminated	-	-	-	-	-	-	-
• Deceased	-	(1)	-	(9)	(21)	(52)	(83)
• New Beneficiaries	-	-	-	-	19	-	19
• Retired	(2)	-	(1)	-	-	3	-
• Adjustment/Cash Out	=	=	<u>(1)</u>	=	=	=	<u>(1)</u>
■ <b>June 30, 2020</b>	5	4	1	96	312	506	924

## SECTION 11 PARTICIPANT DATA

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### Active Age/Service

Following are active counts by age and service groups:

Age	Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Over	
<b>Under 25</b>	-	-	-	-	-	-	-	-
<b>25-29</b>	-	-	-	-	-	-	-	-
<b>30-34</b>	-	-	-	-	-	-	-	-
<b>35-39</b>	-	-	-	-	-	-	-	-
<b>40-44</b>	-	-	-	-	-	-	-	-
<b>45-49</b>	-	-	-	-	-	-	-	-
<b>50-54</b>	-	-	-	-	-	-	-	-
<b>55-59</b>	-	-	-	-	-	-	-	-
<b>60-64</b>	-	-	-	-	1	-	1	2
<b>65 &amp; Over</b>	-	-	-	-	-	-	3	3
<b>Total</b>	-	-	-	-	1	-	4	5

## SECTION 11 PARTICIPANT DATA

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### Inactives Age/Status/Monthly Benefit

Following are inactive counts and monthly benefit by age and status.

#### Safety

Age		Service Retirees	Disability Retirees	Beneficiaries	Total
Under 50	Count	-	-	-	-
	Avg. Benefit	-	-	-	-
50-54	Count	-	-	-	-
	Avg. Benefit	-	-	-	-
55-59	Count	-	-	-	-
	Avg. Benefit	-	-	-	-
60-64	Count	-	-	1	1
	Avg. Benefit	-	-	1,867	1,867
65-69	Count	-	-	2	2
	Avg. Benefit	-	-	2,018	2,018
70-74	Count	1	10	14	25
	Avg. Benefit	7,337	3,324	1,848	2,658
75-79	Count	4	13	12	29
	Avg. Benefit	2,794	2,410	2,304	2,419
80-84	Count	3	5	12	20
	Avg. Benefit	5,941	2,683	2,386	2,993
85 & Over	Count	30	8	41	79
	Avg. Benefit	4,883	3,373	2,349	3,415
Total	Count	38	36	82	156
	Avg. Benefit	4,811	2,916	2,249	3,027

## SECTION 11 PARTICIPANT DATA

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### Miscellaneous

Age		Service Retirees	Disability Retirees	Beneficiaries	Total
<b>Under 50</b>	<b>Count</b>	-	-	1	1
	<b>Avg. Benefit</b>	-	-	710	710
<b>50-54</b>	<b>Count</b>	-	-	-	-
	<b>Avg. Benefit</b>	-	-	-	-
<b>55-59</b>	<b>Count</b>	-	-	4	4
	<b>Avg. Benefit</b>	-	-	1,214	1,214
<b>60-64</b>	<b>Count</b>	11	2	10	23
	<b>Avg. Benefit</b>	2,963	2,081	1,229	2,132
<b>65-69</b>	<b>Count</b>	76	18	17	111
	<b>Avg. Benefit</b>	3,435	2,407	1,402	2,957
<b>70-74</b>	<b>Count</b>	121	11	39	171
	<b>Avg. Benefit</b>	3,303	2,896	1,700	2,911
<b>75-79</b>	<b>Count</b>	104	6	33	143
	<b>Avg. Benefit</b>	3,288	1,644	1,717	2,856
<b>80-84</b>	<b>Count</b>	77	13	43	133
	<b>Avg. Benefit</b>	3,094	2,184	1,793	2,584
<b>85 &amp; Over</b>	<b>Count</b>	79	10	83	172
	<b>Avg. Benefit</b>	3,136	1,648	1,459	2,240
<b>Total</b>	<b>Count</b>	468	60	230	758
	<b>Avg. Benefit</b>	3,251	2,235	1,578	2,663

**Exhibit H**  
**Current Debt Service Schedule**  
**As of 3/15/2021**

**Sacramento Public Financing Authority Lease Revenue Bonds, Series 2015 (Golden 1 Center) (Federally Taxable)**

Bond Info	Par Amount	\$ 272,870,000.00	Call Information	"On or after" Date	10/7/2015	Call Price (% of Par)	100%
	Dated Date	10/06/2015					
	Issued Date	10/06/2015					
	Final Maturity	04/01/2050					

PAYMENT DATE	INTEREST RATE	ORIGINAL PRINCIPAL DUE	CALLED PRINCIPAL	CALL PREMIUM	OUTSTANDING PRINCIPAL	INTEREST DUE	DEBT SERVICE PAYMENT	TOTAL BOND YEAR DEBT SERVICE	TOTAL FISCAL YEAR DEBT SERVICE
-	-	\$ -	\$ -	INVALID CALL	\$ -	\$ -	\$ -		
Apr 01, 2016	-	\$ -	\$ -	\$ -	\$ -	\$ 7,229,367.44	\$ 7,229,367.44	\$ 7,229,367.44	\$ 7,229,367.44
Oct 01, 2016	-	\$ -	\$ -	\$ -	\$ -	\$ 7,435,920.80	\$ 7,435,920.80	\$ 7,435,920.80	\$ 7,435,920.80
Apr 01, 2017	-	\$ -	\$ -	\$ -	\$ -	\$ 7,435,920.80	\$ 7,435,920.80	\$ 14,871,841.60	\$ 14,871,841.60
Oct 01, 2017	-	\$ -	\$ -	\$ -	\$ -	\$ 7,435,920.80	\$ 7,435,920.80		
Apr 01, 2018	2.51%	\$ 3,425,000.00	\$ -	\$ -	\$ 3,425,000.00	\$ 7,435,920.80	\$ 10,860,920.80	\$ 18,296,841.60	\$ 18,296,841.60
Oct 01, 2018	-	\$ -	\$ -	\$ -	\$ -	\$ 7,392,937.05	\$ 7,392,937.05		
Apr 01, 2019	2.90%	\$ 3,510,000.00	\$ -	\$ -	\$ 3,510,000.00	\$ 7,392,937.05	\$ 10,902,937.05	\$ 18,295,874.10	\$ 18,295,874.10
Oct 01, 2019	-	\$ -	\$ -	\$ -	\$ -	\$ 7,342,112.25	\$ 7,342,112.25		
Apr 01, 2020	3.20%	\$ 3,615,000.00	\$ -	\$ -	\$ 3,615,000.00	\$ 7,342,112.25	\$ 10,957,112.25	\$ 18,299,224.50	\$ 18,299,224.50
Oct 01, 2020	-	\$ -	\$ -	\$ -	\$ -	\$ 7,284,344.55	\$ 7,284,344.55		
Apr 01, 2021	3.54%	\$ 3,810,000.00	\$ -	\$ -	\$ 3,810,000.00	\$ 7,284,344.55	\$ 11,094,344.55	\$ 18,378,689.10	\$ 18,378,689.10
Oct 01, 2021	-	\$ -	\$ -	\$ -	\$ -	\$ 7,216,850.40	\$ 7,216,850.40		
Apr 01, 2022	3.79%	\$ 3,945,000.00	\$ -	\$ -	\$ 3,945,000.00	\$ 7,216,850.40	\$ 11,161,850.40	\$ 18,378,700.80	\$ 18,378,700.80
Oct 01, 2022	-	\$ -	\$ -	\$ -	\$ -	\$ 7,142,033.48	\$ 7,142,033.48		
Apr 01, 2023	4.00%	\$ 4,005,000.00	\$ -	\$ -	\$ 4,005,000.00	\$ 7,142,033.48	\$ 11,147,033.48	\$ 18,289,066.96	\$ 18,289,066.96
Oct 01, 2023	-	\$ -	\$ -	\$ -	\$ -	\$ 7,062,033.60	\$ 7,062,033.60		
Apr 01, 2024	5.64%	\$ 4,165,000.00	\$ -	\$ -	\$ 4,165,000.00	\$ 7,062,033.60	\$ 11,227,033.60	\$ 18,289,067.20	\$ 18,289,067.20
Oct 01, 2024	-	\$ -	\$ -	\$ -	\$ -	\$ 6,944,643.08	\$ 6,944,643.08		
Apr 01, 2025	5.64%	\$ 4,400,000.00	\$ -	\$ -	\$ 4,400,000.00	\$ 6,944,643.08	\$ 11,344,643.08	\$ 18,289,286.16	\$ 18,289,286.16
Oct 01, 2025	-	\$ -	\$ -	\$ -	\$ -	\$ 6,820,629.08	\$ 6,820,629.08		
Apr 01, 2026	5.64%	\$ 4,645,000.00	\$ -	\$ -	\$ 4,645,000.00	\$ 6,820,629.08	\$ 11,465,629.08	\$ 18,286,258.16	\$ 18,286,258.16
Oct 01, 2026	-	\$ -	\$ -	\$ -	\$ -	\$ 6,689,709.75	\$ 6,689,709.75		
Apr 01, 2027	5.64%	\$ 4,910,000.00	\$ -	\$ -	\$ 4,910,000.00	\$ 6,689,709.75	\$ 11,599,709.75	\$ 18,289,419.50	\$ 18,289,419.50
Oct 01, 2027	-	\$ -	\$ -	\$ -	\$ -	\$ 6,551,321.40	\$ 6,551,321.40		
Apr 01, 2028	5.64%	\$ 5,185,000.00	\$ -	\$ -	\$ 5,185,000.00	\$ 6,551,321.40	\$ 11,736,321.40	\$ 18,287,642.80	\$ 18,287,642.80
Oct 01, 2028	-	\$ -	\$ -	\$ -	\$ -	\$ 6,405,182.18	\$ 6,405,182.18		
Apr 01, 2029	5.64%	\$ 5,475,000.00	\$ -	\$ -	\$ 5,475,000.00	\$ 6,405,182.18	\$ 11,880,182.18	\$ 18,285,364.36	\$ 18,285,364.36
Oct 01, 2029	-	\$ -	\$ -	\$ -	\$ -	\$ 6,250,869.30	\$ 6,250,869.30		
Apr 01, 2030	5.64%	\$ 5,785,000.00	\$ -	\$ -	\$ 5,785,000.00	\$ 6,250,869.30	\$ 12,035,869.30	\$ 18,286,738.60	\$ 18,286,738.60
Oct 01, 2030	-	\$ -	\$ -	\$ -	\$ -	\$ 6,087,819.08	\$ 6,087,819.08		
Apr 01, 2031	5.64%	\$ 6,110,000.00	\$ -	\$ -	\$ 6,110,000.00	\$ 6,087,819.08	\$ 12,197,819.08	\$ 18,285,638.16	\$ 18,285,638.16
Oct 01, 2031	-	\$ -	\$ -	\$ -	\$ -	\$ 5,915,608.73	\$ 5,915,608.73		
Apr 01, 2032	5.64%	\$ 6,455,000.00	\$ -	\$ -	\$ 6,455,000.00	\$ 5,915,608.73	\$ 12,370,608.73	\$ 18,286,217.46	\$ 18,286,217.46
Oct 01, 2032	-	\$ -	\$ -	\$ -	\$ -	\$ 5,733,674.55	\$ 5,733,674.55		
Apr 01, 2033	5.64%	\$ 6,815,000.00	\$ -	\$ -	\$ 6,815,000.00	\$ 5,733,674.55	\$ 12,548,674.55	\$ 18,282,349.10	\$ 18,282,349.10
Oct 01, 2033	-	\$ -	\$ -	\$ -	\$ -	\$ 5,541,593.78	\$ 5,541,593.78		
Apr 01, 2034	5.64%	\$ 7,200,000.00	\$ -	\$ -	\$ 7,200,000.00	\$ 5,541,593.78	\$ 12,741,593.78	\$ 18,283,187.56	\$ 18,283,187.56
Oct 01, 2034	-	\$ -	\$ -	\$ -	\$ -	\$ 5,338,661.78	\$ 5,338,661.78		
Apr 01, 2035	5.64%	\$ 7,605,000.00	\$ -	\$ -	\$ 7,605,000.00	\$ 5,338,661.78	\$ 12,943,661.78	\$ 18,282,323.56	\$ 18,282,323.56
Oct 01, 2035	-	\$ -	\$ -	\$ -	\$ -	\$ 5,124,314.85	\$ 5,124,314.85		
Apr 01, 2036	5.64%	\$ 8,035,000.00	\$ -	\$ -	\$ 8,035,000.00	\$ 5,124,314.85	\$ 13,159,314.85	\$ 18,283,629.70	\$ 18,283,629.70
Oct 01, 2036	-	\$ -	\$ -	\$ -	\$ -	\$ 4,897,848.38	\$ 4,897,848.38		
Apr 01, 2037	5.64%	\$ 8,485,000.00	\$ -	\$ -	\$ 8,485,000.00	\$ 4,897,848.38	\$ 13,382,848.38	\$ 18,280,696.76	\$ 18,280,696.76
Oct 01, 2037	-	\$ -	\$ -	\$ -	\$ -	\$ 4,658,698.65	\$ 4,658,698.65		
Apr 01, 2038	5.64%	\$ 8,965,000.00	\$ -	\$ -	\$ 8,965,000.00	\$ 4,658,698.65	\$ 13,623,698.65	\$ 18,282,397.30	\$ 18,282,397.30
Oct 01, 2038	-	\$ -	\$ -	\$ -	\$ -	\$ 4,406,020.13	\$ 4,406,020.13		
Apr 01, 2039	5.64%	\$ 9,470,000.00	\$ -	\$ -	\$ 9,470,000.00	\$ 4,406,020.13	\$ 13,876,020.13	\$ 18,282,040.26	\$ 18,282,040.26
Oct 01, 2039	-	\$ -	\$ -	\$ -	\$ -	\$ 4,139,108.18	\$ 4,139,108.18		
Apr 01, 2040	5.64%	\$ 10,000,000.00	\$ -	\$ -	\$ 10,000,000.00	\$ 4,139,108.18	\$ 14,139,108.18	\$ 18,278,216.36	\$ 18,278,216.36
Oct 01, 2040	-	\$ -	\$ -	\$ -	\$ -	\$ 3,857,258.18	\$ 3,857,258.18		
Apr 01, 2041	5.64%	\$ 10,565,000.00	\$ -	\$ -	\$ 10,565,000.00	\$ 3,857,258.18	\$ 14,422,258.18	\$ 18,279,516.36	\$ 18,279,516.36
Oct 01, 2041	-	\$ -	\$ -	\$ -	\$ -	\$ 3,559,483.65	\$ 3,559,483.65		
Apr 01, 2042	5.64%	\$ 11,160,000.00	\$ -	\$ -	\$ 11,160,000.00	\$ 3,559,483.65	\$ 14,719,483.65	\$ 18,278,967.30	\$ 18,278,967.30
Oct 01, 2042	-	\$ -	\$ -	\$ -	\$ -	\$ 3,244,939.05	\$ 3,244,939.05		
Apr 01, 2043	5.64%	\$ 11,790,000.00	\$ -	\$ -	\$ 11,790,000.00	\$ 3,244,939.05	\$ 15,034,939.05	\$ 18,279,878.10	\$ 18,279,878.10
Oct 01, 2043	-	\$ -	\$ -	\$ -	\$ -	\$ 2,912,637.90	\$ 2,912,637.90		
Apr 01, 2044	5.64%	\$ 12,450,000.00	\$ -	\$ -	\$ 12,450,000.00	\$ 2,912,637.90	\$ 15,362,637.90	\$ 18,275,275.80	\$ 18,275,275.80
Oct 01, 2044	-	\$ -	\$ -	\$ -	\$ -	\$ 2,561,734.65	\$ 2,561,734.65		
Apr 01, 2045	5.64%	\$ 13,150,000.00	\$ -	\$ -	\$ 13,150,000.00	\$ 2,561,734.65	\$ 15,711,734.65	\$ 18,273,469.30	\$ 18,273,469.30
Oct 01, 2045	-	\$ -	\$ -	\$ -	\$ -	\$ 2,191,101.90	\$ 2,191,101.90		
Apr 01, 2046	5.64%	\$ 13,895,000.00	\$ -	\$ -	\$ 13,895,000.00	\$ 2,191,101.90	\$ 16,086,101.90	\$ 18,277,203.80	\$ 18,277,203.80
Oct 01, 2046	-	\$ -	\$ -	\$ -	\$ -	\$ 1,799,471.33	\$ 1,799,471.33		
Apr 01, 2047	5.64%	\$ 14,675,000.00	\$ -	\$ -	\$ 14,675,000.00	\$ 1,799,471.33	\$ 16,474,471.33	\$ 18,273,942.66	\$ 18,273,942.66
Oct 01, 2047	-	\$ -	\$ -	\$ -	\$ -	\$ 1,385,856.45	\$ 1,385,856.45		
Apr 01, 2048	5.64%	\$ 15,500,000.00	\$ -	\$ -	\$ 15,500,000.00	\$ 1,385,856.45	\$ 16,885,856.45	\$ 18,271,712.90	\$ 18,271,712.90
Oct 01, 2048	-	\$ -	\$ -	\$ -	\$ -	\$ 948,988.95	\$ 948,988.95		
Apr 01, 2049	5.64%	\$ 16,375,000.00	\$ -	\$ -	\$ 16,375,000.00	\$ 948,988.95	\$ 17,323,988.95	\$ 18,272,977.90	\$ 18,272,977.90
Oct 01, 2049	-	\$ -	\$ -	\$ -	\$ -	\$ 487,459.58	\$ 487,459.58		
Apr 01, 2050	5.64%	\$ 17,295,000.00	\$ -	\$ -	\$ 17,295,000.00	\$ 487,459.58	\$ 17,782,459.58	\$ 18,269,919.16	\$ 18,269,919.16
<b>TOTALS</b>		<b>\$ 272,870,000.00</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 272,870,000.00</b>	<b>\$ 352,762,942.38</b>	<b>\$ 625,632,942.38</b>	<b>\$ 625,632,942.38</b>	<b>\$ 625,632,942.38</b>





**RETIREE HEALTHCARE PLAN**

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June 30, 2019 Actuarial Valuation  
Final Results

**Bartel Associates, LLC**

Mary Beth Redding, Vice President & Actuary  
Catherine Wandro, Assistant Vice President & Actuary  
Daniel Park, Actuarial Analyst

July 30, 2020

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**BENEFIT SUMMARY**

	<b>Fire</b>	<b>Police &amp; Miscellaneous</b>
<ul style="list-style-type: none"> <li>■ Eligibility</li> </ul>	<ul style="list-style-type: none"> <li>■ Retire directly from the City:                             <ul style="list-style-type: none"> <li>● Age 50 &amp; 10 years City service, or</li> <li>● 30 years City service, or</li> <li>● Industrial disability, or</li> <li>● Death in line of duty</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>■ Benefit for Hires before Plan Change Date</li> </ul> <p>Medical, Dental &amp; Vision</p>	<ul style="list-style-type: none"> <li>■ Retire before 1/1/20:                             <ul style="list-style-type: none"> <li>● Retiree only - lowest cost \$25 co-pay medical plan premium plus additional 5.28% of cost plus lowest cost PPO dental plan premium, plus \$25</li> </ul> </li> <li>■ Retire on or after 1/1/20:                             <ul style="list-style-type: none"> <li>● Exclude 5.28% multiplier</li> </ul> </li> <li>■ 2019 = \$860.60/mo                              2020 = \$897.55/mo (DOR &lt; 1/1/20)                              \$856.90/mo (DOR ≥ 1/1/20)</li> </ul>	<ul style="list-style-type: none"> <li>■ Retiree only - \$300/mo</li> <li>■ Retiree + Dependents - \$365/mo</li> </ul>

**BENEFIT SUMMARY**

	<b>Fire</b>	<b>Police &amp; Miscellaneous</b>										
<ul style="list-style-type: none"> <li>■ Vesting Schedule</li> </ul>	<table border="0"> <tr> <td>■ <u>Service</u></td> <td><u>% of Cap</u></td> </tr> <tr> <td>10</td> <td>50%</td> </tr> <tr> <td>15</td> <td>75%</td> </tr> <tr> <td>20+</td> <td>100%</td> </tr> <tr> <td>ID&amp;D Disability</td> <td>100%</td> </tr> </table>	■ <u>Service</u>	<u>% of Cap</u>	10	50%	15	75%	20+	100%	ID&D Disability	100%	<ul style="list-style-type: none"> <li>■ Same</li> </ul>
■ <u>Service</u>	<u>% of Cap</u>											
10	50%											
15	75%											
20+	100%											
ID&D Disability	100%											
<ul style="list-style-type: none"> <li>■ Medical Plans</li> </ul>	<ul style="list-style-type: none"> <li>■ Retiree may participate in City medical plans or purchase outside plans and be reimbursed by the City up to the cap</li> </ul>											
<ul style="list-style-type: none"> <li>■ Benefit for Hires after Plan Change Date</li> </ul>	<ul style="list-style-type: none"> <li>■ Benefit: No City cash contribution but allowed to participate in City health plans by paying the full premium if hired after:                             <ul style="list-style-type: none"> <li>● 6/30/12 - Exempt Employees and Stationary Engineers Units</li> <li>● 7/20/12 - Unrepresented Employees</li> <li>● 9/3/13 - Police</li> <li>● 11/15/14 - Plumbers and Pipe Fitters</li> <li>● 1/1/20 - Fire</li> <li>● 6/30/13 – All other bargaining units</li> </ul> </li> </ul>											

**BENEFIT SUMMARY**

	<b>Fire</b>	<b>Police &amp; Miscellaneous</b>
<ul style="list-style-type: none"> <li>■ Pre 1/1/91 Deferred Retirement</li> </ul>	<ul style="list-style-type: none"> <li>■ None</li> </ul>	<ul style="list-style-type: none"> <li>■ Eligibility: Age 50 &amp; 10 years</li> <li>■ Benefit: Pre-plan change benefit</li> <li>■ <u>Service</u>      <u>%</u></li> <li>                  10            50%</li> <li>                  20+           100%</li> </ul>
<ul style="list-style-type: none"> <li>■ Surviving Spouse Benefit</li> </ul>	<ul style="list-style-type: none"> <li>■ Same benefit continues to surviving spouse</li> </ul>	
<ul style="list-style-type: none"> <li>■ Other OPEB</li> </ul>	<ul style="list-style-type: none"> <li>■ No City contribution for life insurance or Medicare Part B premiums</li> </ul>	
<ul style="list-style-type: none"> <li>■ Fire Department Unit Trust</li> </ul>	<ul style="list-style-type: none"> <li>■ Effective 6/27/15</li> <li>■ Sub-account in City's CERBT account</li> <li>■ Member Contribution: \$45/mo</li> <li>■ City Contribution: \$45/mo</li> <li>■ Contributions discontinued 12/31/19 per current MOU</li> </ul>	<ul style="list-style-type: none"> <li>■ n/a</li> </ul>

**BENEFIT SUMMARY**

	<b>Fire</b>		<b>Police &amp; Miscellaneous</b>	
<ul style="list-style-type: none"> <li>■ Pay-As-You-Go Costs (\$000's)</li> </ul>	<u>Fiscal Year</u>	<u>Cash</u>	<u>Implied Subsidy</u>	<u>Total</u>
	■ FY 2018/19	\$10,407	\$4,483	\$14,890
	■ FY 2017/18	\$10,123	\$2,780	\$12,903
	■ FY 2016/17	\$10,011	\$2,554	\$12,565
	■ FY 2015/16	\$9,847	\$2,516	\$12,363
	■ FY 2014/15	\$9,904	\$3,620	\$13,524
	■ FY 2013/14	\$9,970	\$3,503	\$13,473
	■ FY 2012/13	\$9,758	\$3,085	\$12,843
	■ FY 2011/12	\$9,462	\$2,729	\$12,191
■ FY 2010/11	\$9,230	\$2,661	\$11,891	

## BENEFIT SUMMARY

	Fire	Police & Miscellaneous																					
<p>■ Implied Subsidy</p>	<p>■ Non-Medicare retirees pay blended rates instead of actual cost</p> <p>■ Active employee premiums subsidize non-Medicare retiree cost</p> <div style="text-align: center;"> <p>2019 Kaiser HMO \$25 Co-Pay - Male</p> <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Age 40</th> <th>Age 45</th> <th>Age 50</th> <th>Age 55</th> <th>Age 60</th> <th>Age 65</th> </tr> </thead> <tbody> <tr> <td>Active/Early Retiree Premium</td> <td>\$739</td> <td>\$739</td> <td>\$739</td> <td>\$739</td> <td>\$739</td> <td>\$739</td> </tr> <tr> <td>Estimated Cost</td> <td>\$428</td> <td>\$545</td> <td>\$706</td> <td>\$915</td> <td>\$1,170</td> <td>\$1,451</td> </tr> </tbody> </table> </div> <p>■ GASB OPEB includes active “implied subsidy” with retiree cost</p> <p>■ Medical:</p> <ul style="list-style-type: none"> <li>● Value to age 65 for Medicare eligible retirees</li> <li>● Value for life for non-Medicare eligible retirees</li> </ul> <p>■ Dental &amp; vision: no implied subsidy valued</p>			Age 40	Age 45	Age 50	Age 55	Age 60	Age 65	Active/Early Retiree Premium	\$739	\$739	\$739	\$739	\$739	\$739	Estimated Cost	\$428	\$545	\$706	\$915	\$1,170	\$1,451
	Age 40	Age 45	Age 50	Age 55	Age 60	Age 65																	
Active/Early Retiree Premium	\$739	\$739	\$739	\$739	\$739	\$739																	
Estimated Cost	\$428	\$545	\$706	\$915	\$1,170	\$1,451																	

## BENEFIT SUMMARY

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**PARTICIPANT STATISTICS**

**Participant Statistics – June 30, 2019**

	Misc	Police	Fire	Total
■ Actives				
• Count	2,636	687	569	3,892
• Average Age	44.6	37.8	42.4	43.1
• Average City Service	10.3	11.8	13.7	11.1
• Average PERSable Salary	\$ 75,389	\$ 94,579	\$ 99,884	\$ 82,357
• Total Salary (\$000's)	198,725	64,976	56,834	320,534
■ Pre 1/1/91 Inactive Vested				
• Count	8	-	-	8
• Average Age	69.0	-	-	69.2
■ Retirees				
• Count - Medical	1,113	231	426	1,770
• Count - Dental	1,658	543	471	2,672
• Count - Vision	827	308	277	1,412
• Count - In Lieu	152	134	16	302
• Count - Total	2,023	628	510	3,161
• Average Age	71.6	67.4	71.0	70.6
• Average Retirement Age	58.6	50.8	54.2	56.4



July 30, 2020



**PARTICIPANT STATISTICS**

**Participant Statistics – June 30, 2017**

	Misc	Police	Fire	Total
■ Actives				
• Count	2,393	761	562	3,716
• Average Age	46.0	38.2	42.0	43.8
• Average City Service	11.5	12.1	13.3	11.9
• Average PERSable Salary	\$ 66,422	\$ 89,574	\$ 104,660	\$ 76,946
• Total Salary (\$000's)	158,947	68,166	58,819	285,932
■ Pre 1/1/91 Inactive Vested				
• Count	10	-	-	10
• Average Age	67.0	-	-	67.0
■ Retirees				
• Count - Medical	1,133	314	400	1,847
• Count - Dental	1,583	518	472	2,573
• Count - Vision	675	229	241	1,145
• Count - In Lieu	102	46	41	189
• Count - Total	2,093	622	521	3,236
• Average Age	71.3	66.9	71.0	70.4
• Average Retirement Age	58.6	50.9	54.4	56.4



July 30, 2020



**PARTICIPANT STATISTICS**

**Participant Reconciliation – Actives**

Actives Participants	Misc	Police	Fire	Total
■ <b>June 30, 2017 Valuation</b>	2,393	761	562	3,716
• New Hires	715	110	56	881
• Departures	(299)	(148)	(20)	(467)
• New Retirements	(173)	(36)	(29)	(238)
• Adjustments	-	-	-	-
■ <b>June 30, 2019 Valuation</b>	2,636	687	569	3,892

**PARTICIPANT STATISTICS**

**Participant Reconciliation – Retirees**

Retired Participants	Misc	Police	Fire	Total
■ <b>June 30, 2017 Valuation</b>	2,093	622	521	3,236
• Departures	(278)	(34)	(50)	(362)
• New Retirements	173	36	29	238
• Adjustments	35	4	10	49
■ <b>June 30, 2019 Valuation</b>	2,023	628	510	3,161

**ACTUARIAL ASSUMPTIONS HIGHLIGHTS**

	<b>June 30, 2017 Valuation</b>	<b>June 30, 2019 Valuation</b>
■ Valuation Date	<ul style="list-style-type: none"> <li>■ June 30, 2017</li> <li>■ Fiscal Years 2018/19 &amp; 2019/20</li> </ul>	<ul style="list-style-type: none"> <li>■ June 30, 2019</li> <li>■ Fiscal Years 2020/21 &amp; 2021/22</li> </ul>
■ Discount Rate	<ul style="list-style-type: none"> <li>■ 3.95%</li> <li>■ Based on closed group crossover analysis following GASBS 75 methodology:                             <ul style="list-style-type: none"> <li>● Projected City contributions of \$1.5 million each year</li> <li>● 6.75% rate for funded benefits and S&amp;P 20-year bond index rate (3.13% as of 6/30/17) for pay-go only</li> </ul> </li> <li>■ CERBT asset allocation strategy #1 (57% global equity, 27% fixed income, 5% TIPS, 8% REITs, 3% commodities)</li> </ul>	<ul style="list-style-type: none"> <li>■ 6.75%</li> <li>■ Based on closed group crossover analysis following GASBS 75 methodology:                             <ul style="list-style-type: none"> <li>● Projected City contributions of \$1.5 million each year</li> <li>● 6.75% rate for funded benefits and S&amp;P 20-year bond index rate (2.79% as of 6/30/19) for pay-go only</li> </ul> </li> <li>■ CERBT asset allocation strategy #1 (59% global equity, 25% fixed income, 5% TIPS, 8% REITs, 3% commodities)</li> </ul>

**ACTUARIAL ASSUMPTIONS HIGHLIGHTS**

	<b>June 30, 2017 Valuation</b>	<b>June 30, 2019 Valuation</b>
■ Inflation	<ul style="list-style-type: none"> <li>■ 2.75%</li> </ul>	<ul style="list-style-type: none"> <li>■ Same</li> </ul>
■ Retirement, Mortality, Termination, Disability	<ul style="list-style-type: none"> <li>■ CalPERS – 1997-2011 Experience Study</li> <li>■ SCERS – 6/30/17 Valuation Assumptions (limited applicability)</li> <li>■ Mortality projected fully generational with Scale MP-16</li> </ul>	<ul style="list-style-type: none"> <li>■ CalPERS – 1997-2015 Experience Study</li> <li>■ SCERS – 6/30/19 Valuation Assumptions (limited applicability)</li> <li>■ Mortality projected fully generational with Scale MP-19</li> </ul>

**ACTUARIAL ASSUMPTIONS HIGHLIGHTS**

	<b>June 30, 2017 Valuation</b>	<b>June 30, 2019 Valuation</b>																																												
<p>■ Participation at Retirement</p>	<p>■ Based on retirements during fiscal years 2015 to 2017, varies by % of cash benefit earned at retirement:</p> <table border="1"> <thead> <tr> <th rowspan="2">Plan</th> <th colspan="4">% of Benefit Earned</th> </tr> <tr> <th>0%</th> <th>50%</th> <th>75%</th> <th>100%</th> </tr> </thead> <tbody> <tr> <td>M&amp;D&amp;V</td> <td>10%</td> <td>23%</td> <td>30%</td> <td>35%</td> </tr> <tr> <td>D &amp; V</td> <td>10%</td> <td>40%</td> <td>35%</td> <td>30%</td> </tr> <tr> <td>M &amp; D</td> <td>0%</td> <td>10%</td> <td>14%</td> <td>20%</td> </tr> <tr> <td>M &amp; V</td> <td>0%</td> <td>3%</td> <td>0%</td> <td>4%</td> </tr> <tr> <td>M Only</td> <td>10%</td> <td>12%</td> <td>9.5%</td> <td>7%</td> </tr> <tr> <td>D Only</td> <td>10%</td> <td>3%</td> <td>1.5%</td> <td>0.5%</td> </tr> <tr> <td>V Only</td> <td>0%</td> <td>0%</td> <td>1%</td> <td>0.5%</td> </tr> </tbody> </table> <p>M = Medical, D = Dental, V = Vision</p>	Plan	% of Benefit Earned				0%	50%	75%	100%	M&D&V	10%	23%	30%	35%	D & V	10%	40%	35%	30%	M & D	0%	10%	14%	20%	M & V	0%	3%	0%	4%	M Only	10%	12%	9.5%	7%	D Only	10%	3%	1.5%	0.5%	V Only	0%	0%	1%	0.5%	<p>■ Same</p>
Plan	% of Benefit Earned																																													
	0%	50%	75%	100%																																										
M&D&V	10%	23%	30%	35%																																										
D & V	10%	40%	35%	30%																																										
M & D	0%	10%	14%	20%																																										
M & V	0%	3%	0%	4%																																										
M Only	10%	12%	9.5%	7%																																										
D Only	10%	3%	1.5%	0.5%																																										
V Only	0%	0%	1%	0.5%																																										

**ACTUARIAL ASSUMPTIONS HIGHLIGHTS**

	<b>June 30, 2017 Valuation</b>			<b>June 30, 2019 Valuation</b>		
<p>■ Medical Trend (Increase in health care costs for all reasons except aging)</p>		Increase from Prior Year			Increase from Prior Year	
	<u>Year</u>	<u>Non-Medicare</u>	<u>Medicare</u>	<u>Year</u>	<u>Non-Medicare</u>	<u>Medicare</u>
	2017	Actual 2017 Premiums		2017	n/a	
	2018	Actual 2018 Premiums		2018	n/a	
	2019	7.50%	6.50%	2019	Actual 2019 Premiums	
	2020	7.50%	6.50%	2020	Actual 2020 Premiums	
	2021	7.25%	6.30%	2021	7.25%	6.30%
	2022	7.00%	6.10%	2022	7.00%	6.10%
	2023	6.75%	5.90%	2023	6.75%	5.90%
	2024	6.50%	5.70%	2024	6.50%	5.70%
	2025	6.25%	5.50%	2025	6.25%	5.50%
	2026	6.00%	5.30%	2026	6.00%	5.30%
	2027	5.80%	5.15%	2027	5.80%	5.15%
	2028	5.60%	5.00%	2028	5.60%	5.00%
	2029	5.40%	4.85%	2029	5.40%	4.85%
	2030	5.20%	4.70%	2030	5.20%	4.70%
	2031-35	5.05%	4.60%	2031-35	5.05%	4.60%
	2036-45	4.90%	4.50%	2036-45	4.90%	4.50%
	2046-55	4.75%	4.45%	2046-55	4.75%	4.45%
	2056-65	4.60%	4.40%	2056-65	4.60%	4.40%
	2066-75	4.30%	4.20%	2066-75	4.30%	4.20%
	2076+	4.00%	4.00%	2076+	4.00%	4.00%



**ACTUARIAL ASSUMPTIONS HIGHLIGHTS**

	<b>June 30, 2017 Valuation</b>	<b>June 30, 2019 Valuation</b>
■ Dental & Vision Trend	■ 2.75%	■ Same
■ Cap Increase Rates	<ul style="list-style-type: none"> <li>■ Fire hired before 1/14/15:                             <ul style="list-style-type: none"> <li>• Lowest cost \$25 co-pay medical premium – medical trend</li> <li>• Lowest cost PPO dental premium – dental trend</li> </ul> </li> <li>■ All Misc, All Police, and Fire hired <math>\geq</math> 1/14/15: 0%</li> </ul>	<ul style="list-style-type: none"> <li>■ Fire hired before 1/14/15:                             <ul style="list-style-type: none"> <li>• Lowest cost \$25 co-pay medical premium – medical trend</li> <li>• Lowest cost PPO dental premium – dental trend</li> </ul> </li> <li>■ Misc and Police: 0%</li> </ul>
■ Affordable Care Act (ACA) Excise Tax	■ 2% liability load on cash subsidy to estimate impact	<ul style="list-style-type: none"> <li>■ None</li> <li>■ Repealed December 2019</li> </ul>

**ACTUARIAL ASSUMPTIONS HIGHLIGHTS**

	<b>June 30, 2017 Valuation</b>	<b>June 30, 2019 Valuation</b>
■ Basis for Assumptions	<ul style="list-style-type: none"> <li>■ No experience study performed for this Plan with the exception of the participation at retirement assumption, which is based on retirements during fiscal years 2015 to 2017.</li> <li>■ CalPERS 1997-2015 experience study was used for participants in the CalPERS plan, SCERS 6/30/19 Valuation assumptions for participants in the SCERS plan (limited applicability)</li> <li>■ Mortality improvement is based on Society of Actuaries tables</li> <li>■ Inflation is based on our estimate for the Plan’s long-term time horizon</li> <li>■ Age-based claims for the June 30, 2019 valuation are based on factors published by the Society of Actuaries.</li> <li>■ Short-term trend was developed in consultation with Axene Healthcare Partners’ healthcare actuaries. Long-term trend was developed using Society of Actuaries Getzen Model of Long-Run Medical Cost Trends.</li> <li>■ Spouse participation based in part on Plan experience</li> </ul>	

**ACTUARIAL METHODS**

<b>Method</b>	<b>June 30, 2017 Valuation</b>	<b>June 30, 2019 Valuation</b>
■ Cost Method	■ Entry Age Normal Cost method	
■ Funding Policy	■ Premiums paid from City resources. ■ Pre-funding: Continue budget appropriations as well as contribute one time resources into CERBT asset allocation strategy #1	
■ Actuarial Value of Assets	■ Methodology: <ul style="list-style-type: none"> <li>• Investment gains/losses spread over 5-year rolling period</li> <li>• Not less than 80% nor more than 120% of market value</li> </ul> ■ Allocation to Misc/Police/Fire: <ul style="list-style-type: none"> <li>• Fire Department Unit Trust assets allocated to Fire group</li> <li>• Remaining assets allocated to Misc/Police/Fire in proportion to actuarial accrued liability</li> </ul>	
■ Amortization Method	■ Level percent of payroll (payments escalate 3% per year)	
■ Amortization Period	■ 20 year closed amortization of 6/30/18 UAAL	■ 18 year closed amortization of 6/30/20 UAAL

**ACTUARIAL METHODS**

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ASSETS

**Market Value of Plan Assets**

(Amounts in 000's)

Market Value of Assets	2017/18			2018/19		
	City	Fire Unit Trust	Total	City	Fire Unit Trust	Total
■ MVA (Beg. of Year)	\$25,183	\$1,258	\$26,441	\$35,073	\$1,984	\$37,057
• Contribution	7,861	615	8,476	3,213	606	3,819
• Benefit Payment	(0)	(0)	(0)	(0)	(0)	(0)
• Admin. Expenses	(14)	(1)	(15)	(17)	(1)	(18)
• Inv. Expenses	(10)	(1)	(11)	(13)	(1)	(14)
• Investment Return	<u>2,052</u>	<u>113</u>	<u>2,165</u>	<u>2,292</u>	<u>159</u>	<u>2,450</u>
■ MVA (End of Year)	35,073	1,984	37,057	40,548	2,747	43,294
■ Approx. Annual Return	7.6%			6.4%		

ASSETS

**Market Value of Plan Assets**

(Amounts in 000's)

Market Value of Assets	Projected 2019/20		
	City	Fire Unit Trust	Total
■ MVA (Beg. of Year)	\$40,548	\$2,747	\$43,294
• Contribution	8,834	310 <sup>1</sup>	9,144
• Benefit Payment	(0)	(0)	(0)
• Admin. Expenses	(22)	(1)	(23)
• Inv. Expenses	-	-	-
• Net Investment Return <sup>2</sup>	<u>2,960</u>	<u>201</u>	<u>3,162</u>
■ MVA (End of Year)	52,320	3,257	55,577
■ Projected Annual Return	6.75%		

<sup>1</sup> Contributions to Fire Unit Trust discontinued 12/31/19 per current Fire MOU.

<sup>2</sup> Assets projected to 6/30/20 based on contributions as of the 3/31/20 CERBT statements and an expected 2019/20 investment return of 6.75%.

ASSETS

**Actuarial Value of Plan Assets**

(Amounts in 000's)

Actuarial Value of Assets	2017/18 <sup>3</sup>			2018/19		
	City	Fire	Total	City	Fire	Total
■ AVA (Beginning of Year)	\$24,807	\$1,234	\$26,041	\$34,556	\$1,959	\$36,515
• Employer/Employee Contribution	7,861	615	8,476	3,213	606	3,819
• Benefit Payment	-	-	-	-	-	-
• Expected Investment Return <sup>4</sup>	<u>1,759</u>	<u>104</u>	<u>1,863</u>	<u>2,354</u>	<u>153</u>	<u>2,507</u>
■ Expected AVA (End of Year)	34,427	1,953	36,380	40,123	2,718	42,841
■ MVA (End of Year)	35,073	1,984	37,057	40,548	2,747	43,294
■ 1/5 of (MVA – Expected AVA)	129	6	135	85	6	91
■ Preliminary AVA <sup>5</sup>	34,556	1,959	36,515	40,208	2,724	42,932
• Minimum AVA (80% of MVA)	28,058	1,587	26,645	32,438	2,198	34,635
• Maximum AVA (120% of MVA)	42,088	2,381	44,469	48,658	3,296	51,953
■ AVA (End of Year)	34,556	1,959	36,515	40,208	2,724	42,932
■ Approximate Annual Return			7.2%			7.0%

<sup>3</sup> Revised based on actual 6/30/18 MVA.

<sup>4</sup> Expected investment return of 6.75%.

<sup>5</sup> Expected AVA plus 20% of the difference between the MVA and expected AVA.

ASSETS

**Actuarial Value of Plan Assets**

(Amounts in 000's)

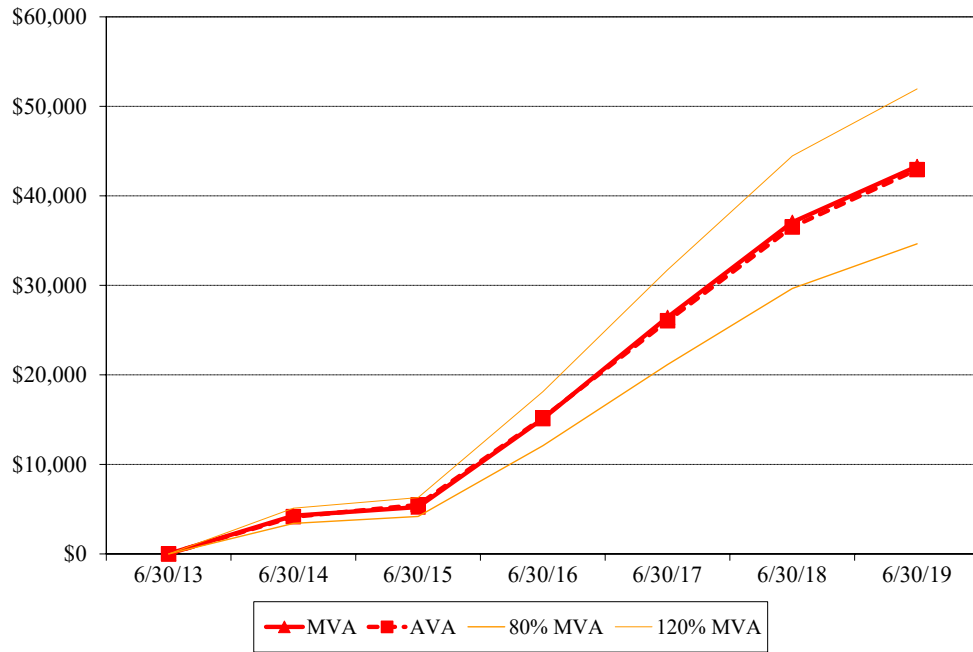
Actuarial Value of Assets	Projected 2019/20		
	City	Fire	Total
■ AVA (Beginning of Year)	\$40,208	\$2,724	\$42,932
• Employer/Employee Contribution	8,834	310	9,144
• Benefit Payment	-	-	-
• Expected Investment Return <sup>6</sup>	<u>2,937</u>	<u>194</u>	<u>3,131</u>
■ Expected AVA (End of Year)	51,979	3,228	55,207
■ MVA (End of Year)	52,320	3,257	55,577
■ 1/5 of (MVA – Expected AVA)	68	6	74
■ Preliminary AVA <sup>7</sup>	52,047	3,234	55,281
• Minimum AVA (80% of MVA)	41,856	2,605	44,461
• Maximum AVA (120% of MVA)	62,784	3,908	66,692
■ AVA (End of Year)	52,047	3,234	55,281
■ Approximate Annual Return			6.9%

<sup>6</sup> Expected investment return of 6.75%.

<sup>7</sup> Expected AVA plus 20% of the difference between the MVA and expected AVA.

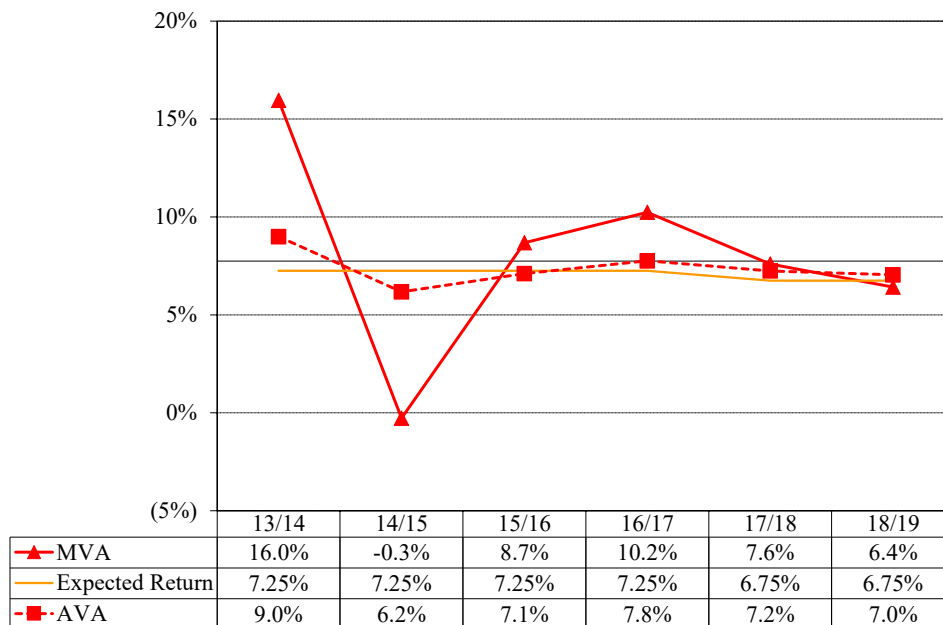
## ASSETS

### Historical Plan Assets (Amounts in \$000's)



## ASSETS

### Historical Asset Returns



## RESULTS

### Actuarial Obligations

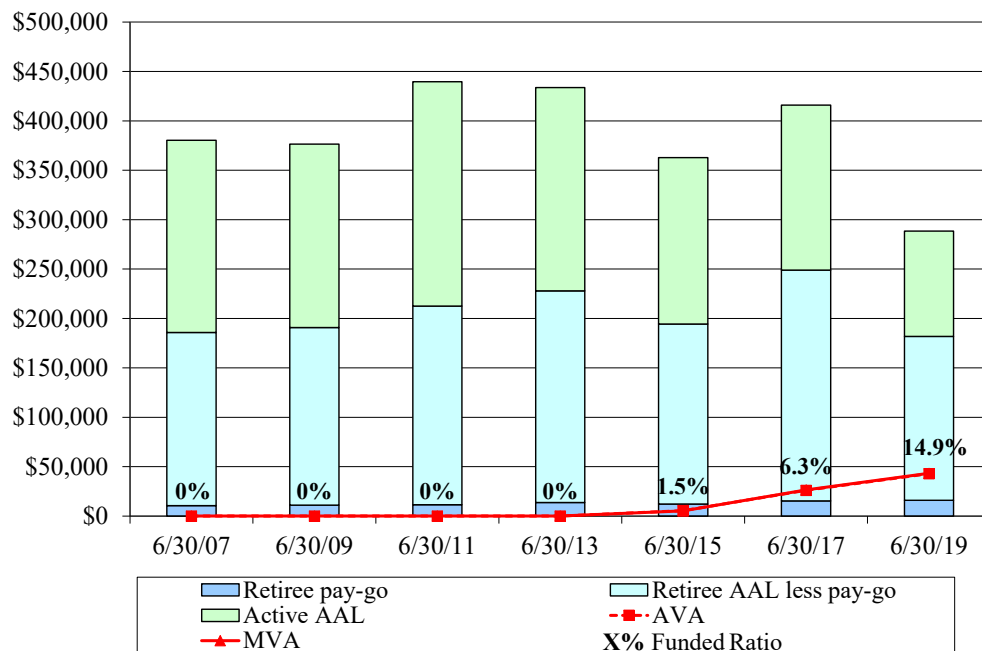
(Amounts in 000's)

	6/30/17 Valuation		6/30/19 Valuation	
Discount Rate	3.95%		6.75%	
	6/30/17	Projected to 6/30/18	6/30/19	Projected to 6/30/20
<b>■ Present Value of Benefits</b> <ul style="list-style-type: none"> <li>• Actives</li> <li>• Retirees</li> <li>• Total</li> </ul>	\$ 290,592		\$ 161,856	
	<u>248,926</u>		<u>181,853</u>	
	539,518		343,709	
<b>■ Actuarial Accrued Liability</b> <ul style="list-style-type: none"> <li>• Actives</li> <li>• Retirees</li> <li>• Total</li> </ul>	167,031		106,546	
	<u>248,926</u>		<u>181,853</u>	
	415,957	\$ 428,858	288,399	\$ 298,341
<b>■ Actuarial Value of Assets</b>	<u>(26,041)</u>	<u>(29,432)</u>	<u>(42,932)</u>	<u>(55,281)</u>
<b>■ Unfunded AAL</b>	389,916	399,426	245,467	243,060
<b>■ AVA Funded Ratio</b>	6.3%		14.9%	
<b>■ Normal Cost</b>		11,834		6,345
<b>■ Pay-As-You-Go Cost</b>		15,343		16,001

## RESULTS

### Historical Actuarial Accrued Liability

(Amounts in 000's)



**RESULTS**

**Estimated Actuarial Gain/Loss Analysis**

(Amounts in 000's)

	AAL
■ Actual on 6/30/17	\$ 415,957
■ Expected on 6/30/19	441,988
■ Experience (Gains)/Losses:	
• Premiums/Claims/Caps different than expected	(19,203)
• Demographic <sup>8</sup>	(9,397)
■ Assumption Changes:	
• CalPERS 1997-2015 Experience Study	4,032
• Mortality Improvement Scale MP-2019	(6,016)
• Remove ACA Excise Tax	(5,376)
• Discount Rate	(118,159)
■ Benefit Change for Fire Group	530
■ Total (Gains)/Losses	(153,589)
■ Actual on 6/30/19	288,399

<sup>8</sup> Mainly decrements different from expected (mortality, retirement, disability, termination), and fewer retiring employees than expected electing coverage.



July 30, 2020



**RESULTS**

**Schedule of Funding Progress**

(Amounts in 000's)

Actuarial Valuation Date <sup>9</sup>	Actuarial Value of Assets (a)	Entry Age Actuarial Accrued Liability (b)	Unfunded Actuarial Accrued Liability (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as Percentage of Covered Payroll ((b-a)/c)
6/30/07	\$ -	\$ 380,373	\$ 380,373	0.0%	\$ 266,317	142.8%
6/30/09	-	376,417	376,417	0.0%	275,252	136.8%
6/30/11	-	439,592	439,592	0.0%	253,528	173.4%
6/30/12	-	447,406	447,406	0.0%	261,768	170.9%
6/30/13	-	433,695	433,695	0.0%	257,498	168.4%
6/30/15	5,461	362,824	357,363	1.5%	270,677	132.0%
6/30/17	26,041	415,957	389,916	6.3%	285,932	136.4%
6/30/19	42,932	288,399	245,467	14.9%	320,534	76.6%

<sup>9</sup> The valuations for 6/30/07 through the 6/30/11 are based on a 4.25% discount rate. The 6/30/13 & 6/30/15 valuations are based on a 4.50% discount rate. The 6/30/17 valuation is based on a 3.95% discount rate, and the 6/30/19 valuation is based on a 6.75% discount rate.



July 30, 2020



## RESULTS

### Actuarially Determined Contribution (ADC)

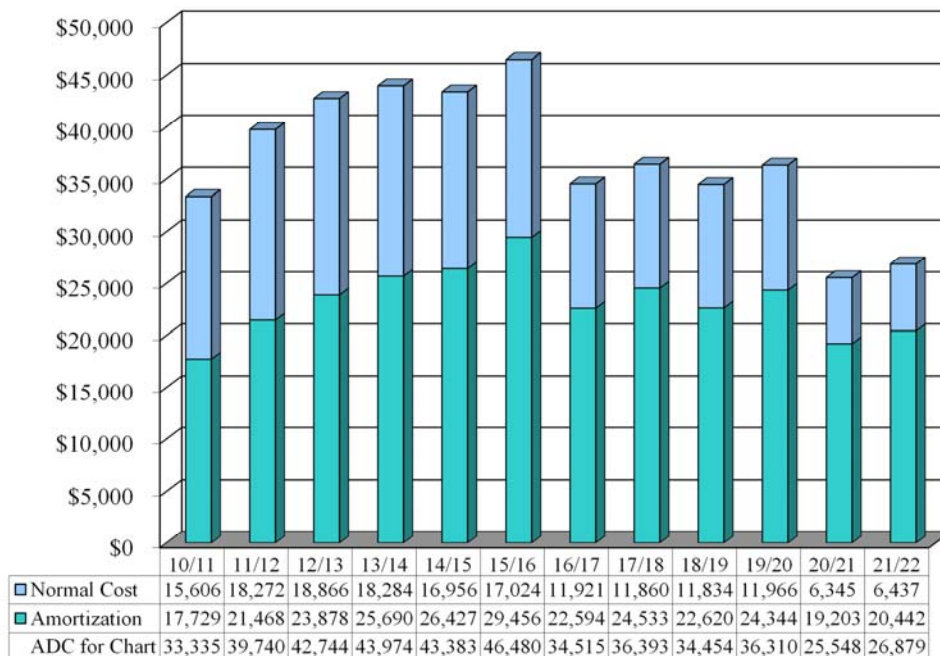
(Amounts in 000's)

	6/30/17 Valuation		6/30/19 Valuation	
	2018/19	2019/20	2020/21	2021/22
<b>■ ADC - \$</b>				
• Normal Cost	\$ 11,834	\$ 11,966	\$ 6,345	\$ 6,437
• UAAL Amortization	<u>22,620</u>	<u>24,344</u>	<u>19,203</u>	<u>20,442</u>
• ADC (End of Year)	34,454	36,310	25,548	26,879
<b>■ Projected Payroll</b>	303,345	312,446	330,150	340,055
<b>■ ADC - % Total Payroll</b>				
• Normal Cost	3.9%	3.8%	1.9%	1.9%
• UAAL Amortization	<u>7.5%</u>	<u>7.8%</u>	<u>5.8%</u>	<u>6.0%</u>
• ADC	11.4%	11.6%	7.7%	7.9%

## RESULTS

### Historical Actuarially Determined Contributions

(Amounts in 000's)





RESULTS

**Actuarial Obligations by Cash/Implied Subsidy**

**June 30, 2019**  
(Amounts in 000's)

	Cash Subsidy	Implied Subsidy	Total
■ <b>Present Value of Benefits</b>			
• Actives	\$ 91,383	\$ 70,473	\$ 161,856
• Retirees	<u>126,047</u>	<u>55,806</u>	<u>181,853</u>
• Total	217,430	126,279	343,709
■ <b>Actuarial Accrued Liability</b>			
• Actives	60,167	46,379	106,546
• Retirees	<u>126,047</u>	<u>55,806</u>	<u>181,853</u>
• Total	186,214	102,185	288,399
■ <b>Actuarial Value of Assets<sup>10</sup></b>	<u>(42,932)</u>	-	<u>(42,932)</u>
■ <b>Unfunded AAL</b>	143,282	102,185	245,467
■ <b>AVA Funded Ratio</b>	23.1%	n/a	14.9%
■ <b>Normal Cost 2020/21</b>	3,653	2,692	6,345
■ <b>Pay-As-You-Go 2020/21</b>	11,216	4,785	16,001

<sup>10</sup> All assets allocated to cash subsidy.

RESULTS

**Actuarially Determined Contribution (ADC) by Cash/Implied Subsidy**

**2020/21 Fiscal Year**  
(Amounts in 000's)

	Cash Subsidy	Implied Subsidy	Total
■ <b>ADC - \$</b>			
• Normal Cost	\$ 3,653	\$ 2,692	\$ 6,345
• UAAL Amortization	<u>10,732</u>	<u>8,471</u>	<u>19,203</u>
• Total	14,385	11,163	25,548
■ <b>Projected Payroll</b>	330,150	330,150	330,150
■ <b>ADC - %</b>			
• Normal Cost	1.1%	0.8%	1.9%
• UAAL Amortization	<u>3.3%</u>	<u>2.6%</u>	<u>5.8%</u>
• Total	4.4%	3.4%	7.7%

**RESULTS**

**Actuarial Obligations by Group**

(Amounts in 000's)

	Misc	Police	Fire	Total
<b>■ Present Value of Benefits</b>				
• Actives	\$ 56,035	\$ 28,268	\$ 77,553	\$ 161,856
• Retirees	<u>72,105</u>	<u>35,463</u>	<u>74,285</u>	<u>181,853</u>
• Total	128,140	63,731	151,838	343,709
<b>■ Actuarial Accrued Liability</b>				
• Actives	41,436	18,503	46,607	106,546
• Retirees	<u>72,105</u>	<u>35,463</u>	<u>74,285</u>	<u>181,853</u>
• Total	113,541	53,966	120,892	288,399
<b>■ Actuarial Value of Assets<sup>11</sup></b>	<u>(15,830)</u>	<u>(7,524)</u>	<u>(19,578)</u>	<u>(42,932)</u>
<b>■ Unfunded AAL</b>	97,711	46,442	101,314	245,467
<b>■ Funded Ratio</b>	13.9%	13.9%	16.2%	14.9%
<b>■ Normal Cost 2020/21</b>	1,992	1,143	3,210	6,345
<b>■ Pay-As-You-Go 2020/21</b>	7,678	2,864	5,459	16,001

<sup>11</sup> Fire Assets allocated to Fire group, remaining assets allocated to Misc/Fire/Police in proportion to liability.



July 30, 2020



**RESULTS**

**Actuarially Determined Contribution (ADC) by Group**

**2020/21 Fiscal Year**

(Amounts in 000's)

	Misc	Police	Fire	Total
<b>■ ADC - \$</b>				
• Normal Cost	\$ 1,992	\$ 1,143	\$ 3,210	\$ 6,345
• UAAL Amortization	<u>7,539</u>	<u>3,644</u>	<u>8,020</u>	<u>19,203</u>
• Total	9,531	4,787	11,230	25,548
<b>■ Projected Payroll</b>	204,687	66,925	58,539	330,150
<b>■ ADC - %</b>				
• Normal Cost	1.0%	1.7%	5.5%	1.9%
• UAAL Amortization	<u>3.7%</u>	<u>5.4%</u>	<u>13.7%</u>	<u>5.8%</u>
• Total	4.7%	7.2%	19.2%	7.7%



July 30, 2020



**RESULTS**

**Actuarially Determined Contribution (ADC) by Group**

**2021/22 Fiscal Year**

(Amounts in 000's)

	Misc	Police	Fire	Total
<b>■ ADC - \$</b>				
• Normal Cost	\$ 2,035	\$ 1,165	\$ 3,237	\$ 6,437
• UAAL Amortization	<u>8,026</u>	<u>3,879</u>	<u>8,537</u>	<u>20,442</u>
• Total	10,061	5,044	11,774	26,879
<b>■ Projected Payroll</b>	210,827	68,933	60,295	340,055
<b>■ ADC - %</b>				
• Normal Cost	1.0%	1.7%	5.4%	1.9%
• UAAL Amortization	<u>3.8%</u>	<u>5.6%</u>	<u>14.2%</u>	<u>6.0%</u>
• Total	4.8%	7.3%	19.5%	7.9%

**RESULTS**

**10-Year Projection Illustration**

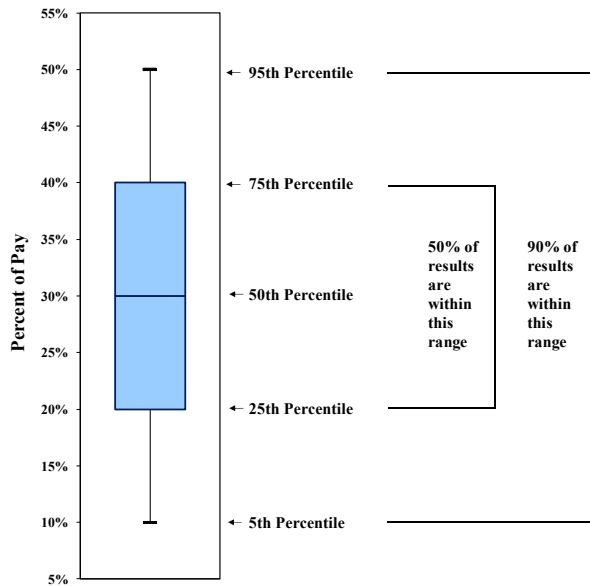
(Amounts in 000's)

FYE June 30,	ADC	Benefit Payments			Pre- Fund <sup>12</sup>	Total Contrib	Payroll	ADC as % of Payroll	Contrib as % of Payroll
		Cash Subsidy	Implied Subsidy	Total					
2021	\$25,548	\$11,216	\$4,785	\$16,001	\$1,500	\$17,501	\$330,150	7.7%	5.3%
2022	26,879	11,607	5,183	16,790	1,500	18,290	340,055	7.9%	5.4%
2023	28,308	12,049	5,487	17,536	1,500	19,036	350,256	8.1%	5.4%
2024	29,870	12,468	6,100	18,568	1,500	20,068	360,764	8.3%	5.6%
2025	31,554	12,877	6,699	19,576	1,500	21,076	371,587	8.5%	5.7%
2026	33,391	13,292	7,304	20,596	1,500	22,096	382,734	8.7%	5.8%
2027	35,427	13,724	7,909	21,633	1,500	23,133	394,216	9.0%	5.9%
2028	37,716	14,134	8,476	22,610	1,500	24,110	406,043	9.3%	5.9%
2029	40,349	14,483	9,089	23,572	1,500	25,072	418,224	9.6%	6.0%
2030	43,432	14,870	9,821	24,691	1,500	26,191	430,771	10.1%	6.1%

<sup>12</sup> Assumes the City contributes \$1.5 million per year into trust.

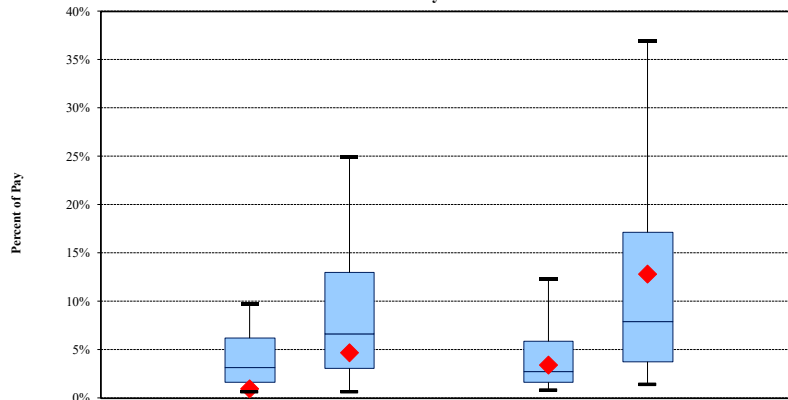
# BARTEL ASSOCIATES OPEB DATABASE

**Bartel Associates OPEB Database  
Sample Percentile Graph**



# BARTEL ASSOCIATES OPEB DATABASE

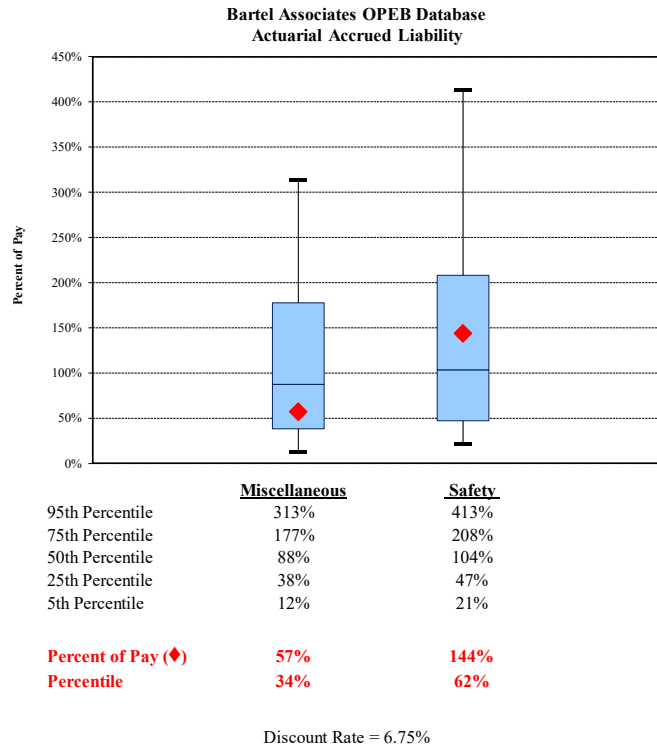
**Bartel Associates OPEB Database  
Normal Cost & Actuarially Determined Contribution**



	Miscellaneous		Safety	
	NC	ADC	NC	ADC
95th Percentile	9.7%	24.9%	12.4%	36.9%
75th Percentile	6.2%	13.0%	5.9%	17.1%
50th Percentile	3.2%	6.7%	2.8%	7.9%
25th Percentile	1.6%	3.1%	1.6%	3.8%
5th Percentile	0.6%	0.6%	0.8%	1.4%
<b>Percent of Pay (♦)</b>	<b>1.0%</b>	<b>4.7%</b>	<b>3.5%</b>	<b>12.8%</b>
<b>Percentile</b>	<b>10%</b>	<b>40%</b>	<b>58%</b>	<b>64%</b>

Discount Rate = 6.75%, Average Amortization Period = 18.0 Years

## BARTEL ASSOCIATES OPEB DATABASE



## ACTUARIAL CERTIFICATION

This report presents the City of Sacramento Retiree Healthcare Plan (“Plan”) June 30, 2019 actuarial valuation. The purpose of this valuation is to:

- Determine the Plan’s June 30, 2019 Funded Status and
- Calculate the 2020/21 and 2021/22 Actuarially Determined Contributions.

Information provided in this report may be useful to the City for the Plan’s financial management. Future valuations may differ significantly if the Plan’s experience differs from our assumptions or if there are changes in Plan design, actuarial methods, or actuarial assumptions. The project scope did not include an analysis of this potential variation.

The valuation is based on Plan provisions, participant data, and asset information provided by the City as summarized in this report, which we relied on and did not audit. We reviewed the participant data for reasonableness.

To the best of our knowledge, this report is complete and accurate and has been conducted using generally accepted actuarial principles and practices. As members of the American Academy of Actuaries meeting the Academy Qualification Standards, we certify the actuarial results and opinions herein.

Respectfully submitted,



Mary Beth Redding, FSA, EA, MAAA, FCA  
Vice President  
Bartel Associates, LLC  
July 30, 2020



Catherine A. Wandro, ASA, MAAA, FCA  
Assistant Vice President  
Bartel Associates, LLC  
July 30, 2020

**EXHIBITS**

<b>Topic</b>	<b>Page</b>
Premiums	E- 1
Data Summary	E- 7
Actuarial Assumptions	E-20
Definitions	E-30

**EXHIBITS**

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PREMIUMS

**2019 Monthly Medical Premiums**  
**Actives and Non Medicare Retirees**

<b>Medical Plan</b>	<b>Single</b>	<b>2-Party</b>	<b>Family</b>
Kaiser HMO - \$25 Co-Pay	\$ 739.48	\$ 1,478.94	\$ 1,967.00
Kaiser HMO - \$40 Co-Pay	729.12	1,458.22	1,939.44
Kaiser HMO - ABHP (actives only)	601.74	1,203.48	1,600.64
Western Health Advantage - \$25 Co-Pay	756.04	1,512.04	2,011.06
Western Health Advantage - \$40 Co-Pay	743.16	1,486.32	1,976.82
Western Health Advantage - ABHP (actives only)	580.22	1,160.44	1,543.88
Sutter Health Plus - \$25 Co-Pay	758.90	1,517.72	2,019.88
Sutter Health Plus - \$40 Co-Pay	731.10	1,462.14	1,945.94
Sutter Health Plus - ABHP (actives only)	621.34	1,242.52	1,652.78

PREMIUMS

**2019 Monthly Medical Premiums**  
**Medicare Retirees**

<b>Medical Plan</b>	<b>Single</b>	<b>2-Party</b>	<b>Family</b>
Kaiser Senior Advantage – \$20 Co-Pay	\$ 333.36	\$ 633.54	\$ 999.48
UHC Group Medicare Advantage PPO - \$15 Co-Pay	354.96	709.92	n/a

**PREMIUMS**

**2019 Monthly Dental & Vision Premiums**  
**Actives and Retirees**

<b>Dental Plan</b>	<b>Single</b>	<b>2-Party</b>	<b>Family</b>
Delta Dental DPO	\$ 57.08	\$ 108.42	\$144.36
DeltaCare USA (DMO)	27.86	52.92	70.44

<b>Vision Plan</b>	<b>Single</b>	<b>2-Party</b>	<b>Family</b>
VSP - Basic	\$ 8.04	\$ 11.56	\$ 20.68
VSP - Enhanced	10.86	15.60	27.90

**PREMIUMS**

**2020 Monthly Medical Premiums**  
**Actives and Non Medicare Retirees**

<b>Medical Plan</b>	<b>Single</b>	<b>2-Party</b>	<b>Family</b>
Kaiser HMO - \$25 Co-Pay	\$ 769.84	\$1,539.68	\$2,047.80
Kaiser HMO - \$40 Co-Pay	759.04	1,518.08	2,019.06
Kaiser HMO - ABHP (actives only)	626.42	1,252.84	1,666.28
Western Health Advantage - \$25 Co-Pay	785.34	1,570.62	2,088.96
Western Health Advantage - \$40 Co-Pay	771.94	1,543.90	2,053.40
Western Health Advantage - ABHP (actives only)	602.70	1,205.40	1,603.16
Sutter Health Plus - \$25 Co-Pay	781.72	1,563.38	2,080.80
Sutter Health Plus - \$40 Co-Pay	753.10	1,506.16	2,004.68
Sutter Health Plus - ABHP (actives only)	639.70	1,279.20	1,701.60



PREMIUMS

**2020 Monthly Medical Premiums**  
**Medicare Retirees**

Medical Plan	Single	2-Party	Family
Kaiser Senior Advantage – \$20 Co-Pay	\$ 348.10	\$ 661.56	\$ 1,043.70
UHC Group Medicare Advantage PPO - \$15 Co-Pay	365.00	730.00	n/a

PREMIUMS

**2020 Monthly Dental & Vision Premiums**  
**Actives and Retirees**

Dental Plan	Single	2-Party	Family
Delta Dental DPO	\$ 62.06	\$ 117.86	\$ 156.92
DeltaCare USA (DMO)	27.86	52.92	70.44

Vision Plan	Single	2-Party	Family
VSP - Basic	\$ 8.44	\$ 12.14	\$ 21.72
VSP - Enhanced	13.02	18.68	33.44

**DATA SUMMARY**

**Medical Plan Participation**  
**Non-Waived Participants**  
**June 30, 2019**

Plan	Actives	Retirees	
		< 65	≥ 65
Kaiser HMO - \$25 Co-Pay (\$20 Co-Pay Post 65)	45%	49%	41%
Kaiser HMO - \$40 Co-Pay (\$20 Co-Pay Post 65)	9%	9%	28%
Kaiser HMO - ABHP	9%	0%	0%
Western Health Advantage - \$25 Co-Pay	7%	15%	1%
Western Health Advantage - \$40 Co-Pay	1%	3%	0%
Western Health Advantage - ABHP	3%	0%	0%
Sutter Health Plus - \$25 Co-Pay	14%	13%	2%
Sutter Health Plus - \$40 Co-Pay	10%	9%	0%
Sutter Health Plus - ABHP	2%	0%	0%
UHC Group Medicare Advantage PPO	0%	3%	28%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

**DATA SUMMARY**

**Current Active Medical Coverage**  
**June 30, 2019**

Medical Plan	Single	2-Party	Family	Waived	Total
Kaiser HMO - \$25 Co-Pay	831	181	442	-	1,454
Kaiser HMO - \$40 Co-Pay	155	33	89	-	277
Kaiser HMO - ABHP	139	33	132	-	304
Western Health Adv. - \$25 Co-Pay	115	35	82	-	232
Western Health Adv. - \$40 Co-Pay	24	2	14	-	40
Western Health Adv. - ABHP	56	11	42	-	109
Sutter Health Plus - \$25 Co-Pay	212	63	163	-	438
Sutter Health Plus - \$40 Co-Pay	133	50	130	-	313
Sutter Health Plus - ABHP	36	8	30	-	74
Waived	-	-	-	651	651
<b>Total</b>	<b>1,701</b>	<b>416</b>	<b>1,124</b>	<b>651</b>	<b>3,892</b>

**DATA SUMMARY**

**Current Retiree Medical Coverage – Pre 65**

Medical Plan	Single	2-Party	Family	Waived	Total
Kaiser HMO - \$25 Co-Pay	152	35	14	-	201
Kaiser HMO - \$40 Co-Pay	15	16	7	-	38
Kaiser Senior Advantage	18	5	-	-	23
Western Health Adv. HMO- \$25 Co-Pay	50	15	3	-	68
Western Health Adv. HMO - \$40 Co-Pay	6	4	2	-	12
Sutter Health Plus HMO - \$25 Co-Pay	45	12	3	-	60
Sutter Health Plus HMO - \$40 Co-Pay	21	10	8	-	39
UHC Group Medicare Advantage PPO	12	-	-	-	12
In Lieu Reimbursement	-	-	-	64	64
Waived	-	-	-	423	423
<b>Total</b>	<b>319</b>	<b>97</b>	<b>37</b>	<b>487</b>	<b>940</b>

**DATA SUMMARY**

**Current Retiree Medical Coverage – Post 65**

Medical Plan	Single	2-Party	Family	Waived	Total
Kaiser HMO - \$25 Co-Pay	40	7	-	-	47
Kaiser HMO - \$40 Co-Pay	4	-	-	-	4
Kaiser Colorado HMO	4	-	-	-	4
Kaiser Hawaii HMO	1	1	-	-	2
Kaiser Oregon HMO	7	3	-	-	10
Kaiser Senior Advantage	549	281	6	-	836
Western Health Adv. HMO - \$25 Co-Pay	14	2	1	-	17
Western Health Adv. HMO- \$40 Co-Pay	-	-	-	-	-
Sutter Health Plus HMO - \$25 Co-Pay	15	6	-	-	21
Sutter Health Plus HMO - \$40 Co-Pay	2	-	-	-	2
UHC Group Medicare Advantage PPO	272	102	-	-	374
In Lieu Reimbursement	-	-	-	231	231
Waived	-	-	-	673	673
<b>Total</b>	<b>908</b>	<b>402</b>	<b>7</b>	<b>904</b>	<b>2,221</b>

**DATA SUMMARY**

**Dental Coverage**

**June 30, 2019**

**Actives**

<b>Dental Plan</b>	<b>Single</b>	<b>2-Party</b>	<b>Family</b>	<b>Waived</b>	<b>Total</b>
Delta Dental DPPO	1,246	492	1,120	-	2,858
DeltaCare USA (DMO)	202	74	138	-	414
Waived	-	-	-	620	620
<b>Total</b>	<b>1,448</b>	<b>566</b>	<b>1,258</b>	<b>620</b>	<b>3,892</b>

**Retirees**

<b>Dental Plan</b>	<b>Single</b>	<b>2-Party</b>	<b>Family</b>	<b>Waived</b>	<b>Total</b>
Delta Dental DPPO	1,200	1,132	213	-	2,545
DeltaCare USA (DMO)	76	46	5	-	127
Waived	-	-	-	489	489
<b>Total</b>	<b>1,276</b>	<b>1,178</b>	<b>218</b>	<b>489</b>	<b>3,161</b>

**DATA SUMMARY**

**Vision Coverage**

**June 30, 2019**

**Actives**

<b>Vision Plan</b>	<b>Single</b>	<b>2-Party</b>	<b>Family</b>	<b>Waived</b>	<b>Total</b>
VSP - Basic	673	331	474	-	1,478
VSP - Enhanced	408	234	306	-	948
Waived	-	-	-	1,466	1,466
<b>Total</b>	<b>1,081</b>	<b>565</b>	<b>780</b>	<b>1,466</b>	<b>3,892</b>

**Retirees**

<b>Vision Plan</b>	<b>Single</b>	<b>2-Party</b>	<b>Family</b>	<b>Waived</b>	<b>Total</b>
VSP - Basic	334	293	51	-	678
VSP - Enhanced	245	377	112	-	734
Waived	-	-	0	1,749	1,749
<b>Total</b>	<b>579</b>	<b>670</b>	<b>163</b>	<b>1,749</b>	<b>3,161</b>

**DATA SUMMARY**

**Retiree Medical and Dental Participation**

<b>Valuation Date</b>	<b>Medical Only</b>	<b>Dental Only</b>	<b>Both Medical &amp; Dental</b>	<b>Neither Medical nor Dental</b>	<b>Total</b>
6/30/2009	188	549	1,686	350	2,773
6/30/2011	309	592	1,478	431	2,810
6/30/2013	220	785	1,645	417	3,067
6/30/2015	214	863	1,601	446	3,124
6/30/2017	196	922	1,651	467	3,236
6/30/2019	195	1,097	1,575	294	3,161

**DATA SUMMARY**

**Retiree Medical Plan Coverage by Age**

**June 30, 2019**

**Miscellaneous**

<b>Age</b>	<b>Single</b>	<b>2-Party</b>	<b>Family</b>	<b>Waived</b>	<b>Total</b>
Under 50	1	1	-	3	5
50-54	5	1	2	18	26
55-59	48	20	7	94	169
60-64	120	25	2	168	315
65-69	190	64	3	201	458
70-74	149	65	-	192	406
75-80	107	46	-	88	241
80-85	96	37	2	79	214
85 & Over	96	26	-	67	189
<b>Total</b>	<b>812</b>	<b>285</b>	<b>16</b>	<b>910</b>	<b>2,023</b>
<b>Average Age</b>	<b>72.8</b>	<b>73.0</b>	<b>63.1</b>	<b>70.2</b>	<b>71.6</b>

**DATA SUMMARY**

**Retiree Medical Plan Coverage by Age**

**June 30, 2019**

**Police**

<b>Age</b>	<b>Single</b>	<b>2-Party</b>	<b>Family</b>	<b>Waived</b>	<b>Total</b>
Under 50	5	-	-	24	29
50-54	9	4	4	34	51
55-59	30	6	4	61	101
60-64	20	18	1	49	88
65-69	17	6	-	47	70
70-74	31	9	-	89	129
75-80	27	11	-	50	88
80-85	11	6	-	26	43
85 & Over	8	4	-	17	29
<b>Total</b>	<b>158</b>	<b>64</b>	<b>9</b>	<b>397</b>	<b>628</b>
<b>Average Age</b>	<b>68.4</b>	<b>69.6</b>	<b>56.7</b>	<b>66.9</b>	<b>67.4</b>



July 30, 2020

E-15

City of  
**SACRAMENTO**

**DATA SUMMARY**

**Retiree Medical Plan Coverage by Age**

**June 30, 2019**

**Fire**

<b>Age</b>	<b>Single</b>	<b>2-Party</b>	<b>Family</b>	<b>Waived</b>	<b>Total</b>
Under 50	2	-	1	4	7
50-54	14	2	4	7	27
55-59	32	8	10	11	61
60-64	33	12	2	14	61
65-69	48	21	1	8	78
70-74	42	35	1	9	87
75-80	33	35	-	11	79
80-85	22	24	-	10	56
85 & Over	31	13	-	10	54
<b>Total</b>	<b>257</b>	<b>150</b>	<b>19</b>	<b>84</b>	<b>510</b>
<b>Average Age</b>	<b>70.7</b>	<b>74.1</b>	<b>56.9</b>	<b>69.4</b>	<b>71.0</b>



July 30, 2020

E-16

City of  
**SACRAMENTO**

**DATA SUMMARY**

**Actives by Age and Service**

**June 30, 2019**

**Miscellaneous**

Age	City Service							Total
	< 1	1-4	5-9	10-14	15-19	20-24	≥ 25	
< 25	37	45	3	-	-	-	-	85
25-29	75	152	15	2	-	-	-	244
30-34	62	170	50	14	6	-	-	302
35-39	48	165	60	59	25	6	-	363
40-44	36	113	61	61	47	23	1	342
45-49	22	89	41	73	76	27	28	356
50-54	18	58	40	64	82	48	59	369
55-59	9	37	35	52	57	41	91	322
60-64	2	20	13	39	42	28	47	191
≥ 65	2	10	10	12	14	5	9	62
<b>Total</b>	<b>311</b>	<b>859</b>	<b>328</b>	<b>376</b>	<b>349</b>	<b>178</b>	<b>235</b>	<b>2,636</b>

**DATA SUMMARY**

**Actives by Age and Service**

**June 30, 2019**

**Police**

Age	City Service							Total
	< 1	1-4	5-9	10-14	15-19	20-24	≥ 25	
< 25	13	26	-	-	-	-	-	39
25-29	18	111	16	-	-	-	-	145
30-34	3	45	28	14	2	-	-	92
35-39	4	12	15	65	18	1	-	115
40-44	-	2	2	32	58	26	1	121
45-49	-	-	2	12	37	53	19	123
50-54	-	1	-	4	9	17	15	46
55-59	-	-	-	1	-	1	2	4
60-64	-	-	-	-	-	1	-	1
≥ 65	-	-	-	-	-	-	1	1
<b>Total</b>	<b>38</b>	<b>197</b>	<b>63</b>	<b>128</b>	<b>124</b>	<b>99</b>	<b>38</b>	<b>687</b>

**DATA SUMMARY**

**Actives by Age and Service**

**June 30, 2019**

**Fire**

Age	City Service							Total
	< 1	1-4	5-9	10-14	15-19	20-24	≥ 25	
< 25	4	-	-	-	-	-	-	4
25-29	7	34	1	-	-	-	-	42
30-34	6	50	27	4	-	-	-	87
35-39	3	21	17	39	15	-	-	95
40-44	2	8	5	36	46	6	-	103
45-49	-	3	2	24	53	31	4	117
50-54	-	-	1	4	28	33	23	89
55-59	1	-	-	3	4	8	10	26
60-64	-	1	-	1	-	-	4	6
≥ 65	-	-	-	-	-	-	-	-
<b>Total</b>	<b>23</b>	<b>117</b>	<b>53</b>	<b>111</b>	<b>146</b>	<b>78</b>	<b>41</b>	<b>569</b>

**ACTUARIAL ASSUMPTIONS**

	June 30, 2017 Valuation	June 30, 2019 Valuation
■ Valuation Date	<ul style="list-style-type: none"> <li>■ June 30, 2017</li> <li>■ Fiscal Years 2018/19 &amp; 2019/20</li> </ul>	<ul style="list-style-type: none"> <li>■ June 30, 2019</li> <li>■ Fiscal Years 2020/21 &amp; 2021/22</li> </ul>
■ Discount Rate	<ul style="list-style-type: none"> <li>■ 3.95%</li> <li>■ Based on closed group crossover analysis following GASBS 75 methodology:                             <ul style="list-style-type: none"> <li>• Projected City contributions of \$1.5 million per year</li> <li>• 6.75% rate for full ADC pre-funding and S&amp;P 20-year bond index rate (3.13% as of 6/30/17) for pay-go pre-funding</li> </ul> </li> <li>■ CERBT asset allocation strategy #1 (57% global equity, 27% fixed income, 5% TIPS, 8% REITs, 3% commodities)</li> </ul>	<ul style="list-style-type: none"> <li>■ 6.75%</li> <li>■ Based on closed group crossover analysis following GASBS 75 methodology:                             <ul style="list-style-type: none"> <li>• Projected City contributions of \$1.5 million per year</li> <li>• 6.75% rate for full ADC pre-funding and S&amp;P 20-year bond index rate (2.79% as of 6/30/19) for pay-go pre-funding</li> </ul> </li> <li>■ CERBT asset allocation strategy #1 (59% global equity, 25% fixed income, 5% TIPS, 8% REITs, 3% commodities)</li> </ul>



**ACTUARIAL ASSUMPTIONS**

	<b>June 30, 2017 Valuation</b>	<b>June 30, 2019 Valuation</b>
■ General Inflation	■ 2.75%	■ Same
■ Aggregate Payroll Increases	■ 3.00%	■ Same
■ Mortality, Termination, Disability	<ul style="list-style-type: none"> <li>■ CalPERS – 1997-2011 Experience Study</li> <li>■ SCERS – 6/30/17 Valuation Assumptions (limited applicability)</li> <li>■ Mortality projected fully generational with Scale MP-16</li> </ul>	<ul style="list-style-type: none"> <li>■ CalPERS – 1997-2015 Experience Study</li> <li>■ SCERS – 6/30/19 Valuation Assumptions (limited applicability)</li> <li>■ Mortality projected fully generational with Scale MP-19</li> </ul>

**ACTUARIAL ASSUMPTIONS**

	<b>June 30, 2017 Valuation</b>	<b>June 30, 2019 Valuation</b>																																										
■ Service Retirement	<ul style="list-style-type: none"> <li>■ CalPERS 1997-2011 Experience Study</li> </ul> <table border="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th align="center">Level</th> <th align="center">Exp. Ret. Age</th> </tr> </thead> <tbody> <tr> <td>Fire</td> <td align="center">3%@55</td> <td align="center">56</td> </tr> <tr> <td>Police</td> <td align="center">3%@50</td> <td align="center">53</td> </tr> <tr> <td>Misc</td> <td align="center">2%@55</td> <td align="center">59</td> </tr> <tr> <td>Fire PEPRAs</td> <td align="center">2.7%@57</td> <td align="center">58</td> </tr> <tr> <td>Police PEPRAs</td> <td align="center">2.7%@57</td> <td align="center">56</td> </tr> <tr> <td>Misc PEPRAs</td> <td align="center">2%@62</td> <td align="center">61</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>■ SCERS – 6/30/17 Valuation Assumptions</li> </ul>		Level	Exp. Ret. Age	Fire	3%@55	56	Police	3%@50	53	Misc	2%@55	59	Fire PEPRAs	2.7%@57	58	Police PEPRAs	2.7%@57	56	Misc PEPRAs	2%@62	61	<ul style="list-style-type: none"> <li>■ CalPERS 1997-2015 Experience Study</li> </ul> <table border="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th align="center">Level</th> <th align="center">Exp. Ret. Age</th> </tr> </thead> <tbody> <tr> <td>Fire</td> <td align="center">3%@55</td> <td align="center">57</td> </tr> <tr> <td>Police</td> <td align="center">3%@50</td> <td align="center">54</td> </tr> <tr> <td>Misc</td> <td align="center">2%@55</td> <td align="center">59</td> </tr> <tr> <td>Fire PEPRAs</td> <td align="center">2.7%@57</td> <td align="center">58</td> </tr> <tr> <td>Police PEPRAs</td> <td align="center">2.7%@57</td> <td align="center">56</td> </tr> <tr> <td>Misc PEPRAs</td> <td align="center">2%@62</td> <td align="center">61</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>■ SCERS – 6/30/19 Valuation Assumptions (limited applicability)</li> </ul>		Level	Exp. Ret. Age	Fire	3%@55	57	Police	3%@50	54	Misc	2%@55	59	Fire PEPRAs	2.7%@57	58	Police PEPRAs	2.7%@57	56	Misc PEPRAs	2%@62	61
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■ CalPERS Service	■ City service plus ½ service between age 30 and City hire date	■ Same																																										

**ACTUARIAL ASSUMPTIONS**

	June 30, 2017 Valuation			June 30, 2019 Valuation		
<b>■ Medical Trend</b> (Increase in health care costs for all reasons except aging)		<u>Increase from Prior Year</u>			<u>Increase from Prior Year</u>	
	<u>Year</u>	<u>Non-Medicare</u>	<u>Medicare</u>	<u>Year</u>	<u>Non-Medicare</u>	<u>Medicare</u>
	2017	Actual 2017 Premiums		2017	n/a	
	2018	Actual 2018 Premiums		2018	n/a	
	2019	7.50%	6.50%	2019	Actual 2019 Premiums	
	2020	7.50%	6.50%	2020	Actual 2020 Premiums	
	2021	7.25%	6.30%	2021	7.25%	6.30%
	2022	7.00%	6.10%	2022	7.00%	6.10%
	2023	6.75%	5.90%	2023	6.75%	5.90%
	2024	6.50%	5.70%	2024	6.50%	5.70%
	2025	6.25%	5.50%	2025	6.25%	5.50%
	2026	6.00%	5.30%	2026	6.00%	5.30%
	2027	5.80%	5.15%	2027	5.80%	5.15%
	2028	5.60%	5.00%	2028	5.60%	5.00%
	2029	5.40%	4.85%	2029	5.40%	4.85%
	2030	5.20%	4.70%	2030	5.20%	4.70%
	2031-35	5.05%	4.60%	2031-35	5.05%	4.60%
	2036-45	4.90%	4.50%	2036-45	4.90%	4.50%
	2046-55	4.75%	4.45%	2046-55	4.75%	4.45%
	2056-65	4.60%	4.40%	2056-65	4.60%	4.40%
2066-75	4.30%	4.20%	2066-75	4.30%	4.20%	
2076+	4.00%	4.00%	2076+	4.00%	4.00%	

**ACTUARIAL ASSUMPTIONS**

	June 30, 2017 Valuation	June 30, 2019 Valuation
<b>■ Dental &amp; Vision Trend</b>	<b>■ 2.75%</b>	<b>■ Same</b>
<b>■ Cap Increase Rates</b>	<b>■ Fire hired &lt;1/14/15:</b> <ul style="list-style-type: none"> <li>• Lowest cost \$25 co-pay medical premium – medical trend</li> <li>• Lowest cost PPO dental premium – dental trend</li> </ul> <b>■ All Misc, All Police, and Fire hired ≥ 1/14/15: 0%</b>	<b>■ Fire hired &lt;1/14/15:</b> <ul style="list-style-type: none"> <li>• Lowest cost \$25 co-pay medical premium – medical trend</li> <li>• Lowest cost PPO dental premium – dental trend</li> </ul> <b>■ Misc and Police: 0%</b>
<b>■ Affordable Care Act (ACA) Excise Tax</b>	<b>■ 2% liability load on cash subsidy to estimate impact</b>	<b>■ None</b> <b>■ Repealed December 2019</b>

**ACTUARIAL ASSUMPTIONS**

	<b>June 30, 2017 Valuation</b>	<b>June 30, 2019 Valuation</b>																																												
<p>■ Participation at Retirement</p>	<p>■ Based on retirements during fiscal years 2015 to 2017, varies by % of cash benefit earned at retirement:</p> <table border="1"> <thead> <tr> <th rowspan="2">Plan</th> <th colspan="4">% of Benefit Earned</th> </tr> <tr> <th>0%</th> <th>50%</th> <th>75%</th> <th>100%</th> </tr> </thead> <tbody> <tr> <td>M&amp;D&amp;V</td> <td>10%</td> <td>23%</td> <td>30%</td> <td>35%</td> </tr> <tr> <td>D &amp; V</td> <td>10%</td> <td>40%</td> <td>35%</td> <td>30%</td> </tr> <tr> <td>M &amp; D</td> <td>0%</td> <td>10%</td> <td>14%</td> <td>20%</td> </tr> <tr> <td>M &amp; V</td> <td>0%</td> <td>3%</td> <td>0%</td> <td>4%</td> </tr> <tr> <td>M Only</td> <td>10%</td> <td>12%</td> <td>9.5%</td> <td>7%</td> </tr> <tr> <td>D Only</td> <td>10%</td> <td>3%</td> <td>1.5%</td> <td>0.5%</td> </tr> <tr> <td>V Only</td> <td>0%</td> <td>0%</td> <td>1%</td> <td>0.5%</td> </tr> </tbody> </table> <p>M = Medical, D = Dental, V = Vision</p>	Plan	% of Benefit Earned				0%	50%	75%	100%	M&D&V	10%	23%	30%	35%	D & V	10%	40%	35%	30%	M & D	0%	10%	14%	20%	M & V	0%	3%	0%	4%	M Only	10%	12%	9.5%	7%	D Only	10%	3%	1.5%	0.5%	V Only	0%	0%	1%	0.5%	<p>■ Same</p>
Plan	% of Benefit Earned																																													
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V Only	0%	0%	1%	0.5%																																										
<p>■ Pre 1/1/91 Inactive Vested Ret. Age</p>	<p>■ SCERS:</p> <ul style="list-style-type: none"> <li>• Sect 399 – Age 62</li> <li>• Sect 175 – Age 65</li> </ul>	<p>■ Same</p>																																												

**ACTUARIAL ASSUMPTIONS**

	<b>June 30, 2017 Valuation</b>				<b>June 30, 2019 Valuation</b>			
<p>■ Estimated Monthly Age-Based Claims Cost per Retiree</p>		FY 2017/18				FY 2020/21		
	Medical Plan	Age	M	F	Medical Plan	Age	M	F
Kaiser HMO		50	\$676	\$738	Kaiser HMO	50	\$781	\$852
		55	876	883		55	1,012	1,019
		60	1,120	1,053		60	1,294	1,215
		65	1,390	1,249		65	1,604	1,442
Sutter Health		50	695	758	Sutter Health	50	805	879
		55	901	907		55	1,044	1,051
		60	1,152	1,082		60	1,334	1,254
		65	1,428	1,284		65	1,655	1,487
Western Health		50	652	711	Western Health	50	700	764
		55	844	850		55	907	914
		60	1,079	1,014		60	1,160	1,090
		65	1,339	1,203		65	1,439	1,293

**ACTUARIAL ASSUMPTIONS**

	<b>June 30, 2017 Valuation</b>	<b>June 30, 2019 Valuation</b>
<p>■ Medical Plan at Retirement</p>	<p>■ Currently covered – Same as active elections:</p> <ul style="list-style-type: none"> <li>● Pre-Medicare – same as current active elections with Account Based Plans =&gt; \$25 Co-Pay Plans</li> <li>● Post-Medicare:                             <ul style="list-style-type: none"> <li>➢ Kaiser =&gt; Kaiser SA</li> <li>➢ Sutter Health and Western Health =&gt; UHC PPO</li> </ul> </li> </ul> <p>■ Currently waived – Kaiser HMO Premium Plan</p>	<p>■ Same</p>
<p>■ Waived Retiree Re-Election</p>	<p>■ Retirees &lt; 65 – 30% re-elect at age 65</p> <p>■ Retirees ≥ 65 – 0% re-elect</p>	<p>■ Same</p>

**ACTUARIAL ASSUMPTIONS**

	<b>June 30, 2017 Valuation</b>	<b>June 30, 2019 Valuation</b>
<p>■ Medicare Eligible Rate</p>	<p>■ Hired before 4/1/86:</p> <ul style="list-style-type: none"> <li>● Misc – 90%</li> <li>● Safety – 80%</li> </ul> <p>■ Hired on or after 4/1/86: 100%</p> <p>■ Retirees under age 65:</p> <ul style="list-style-type: none"> <li>● Misc – 95%</li> <li>● Safety – 90%</li> </ul>	<p>■ Same</p>
<p>■ Marital Status at Retirement</p>	<p>■ Actives:</p> <ul style="list-style-type: none"> <li>● Currently covered – current marital status</li> <li>● Not currently covered – 85% married</li> </ul> <p>■ Retirees – current marital status</p>	<p>■ Same</p>

## ACTUARIAL ASSUMPTIONS

	June 30, 2017 Valuation	June 30, 2019 Valuation
<ul style="list-style-type: none"> <li>■ Spouse Age</li> </ul>	<ul style="list-style-type: none"> <li>■ Actives – Males 3 years older than females</li> <li>■ Retirees – Males 3 years older than females if spouse birth date not available</li> </ul>	<ul style="list-style-type: none"> <li>■ Same</li> </ul>
<ul style="list-style-type: none"> <li>■ Surviving Spouse Participation</li> </ul>	<ul style="list-style-type: none"> <li>■ 100%</li> </ul>	<ul style="list-style-type: none"> <li>■ Same</li> </ul>
<ul style="list-style-type: none"> <li>■ Dependents at Retirement</li> </ul>	<ul style="list-style-type: none"> <li>■ Pre-65:                             <ul style="list-style-type: none"> <li>● Actives                                     <ul style="list-style-type: none"> <li>➢ Misc – 10%</li> <li>➢ Safety – 20%</li> </ul> </li> <li>● Retirees – same as current coverage</li> </ul> </li> <li>■ Post-65 – 0%</li> </ul>	<ul style="list-style-type: none"> <li>■ Same</li> </ul>

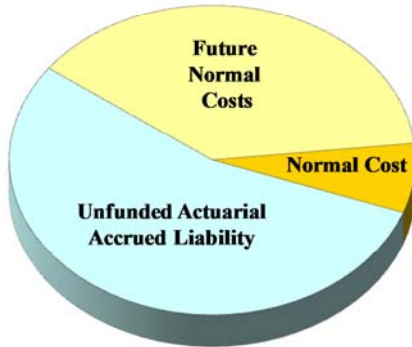
## DEFINITIONS

<ul style="list-style-type: none"> <li>■ OPEB Actuarial Valuation</li> </ul>	<ul style="list-style-type: none"> <li>■ Project future employer-provided benefit cash flows for current active employees and current retirees</li> <li>■ Discount projected cash flow to valuation date using discount rate (assumed return on assets used to pay benefits) and other actuarial assumptions to determine present value of projected future benefits (PVB)</li> <li>■ Allocate PVB to past, current, and future periods using the actuarial cost method</li> <li>■ Actuarial cost method used for this valuation is the Entry Age Normal Cost method which determines Normal Cost as a level percentage of payroll (same method used by CalPERS)</li> <li>■ Normal Cost is amount allocated to current fiscal year</li> <li>■ Actuarial Accrued Liability (AAL) is amount allocated to prior service with employer</li> <li>■ Unfunded AAL (UAAL) is AAL less plan assets pre-funded in a segregated and restricted trust</li> </ul>
<ul style="list-style-type: none"> <li>■ PayGo Cost</li> </ul>	<ul style="list-style-type: none"> <li>■ Cash subsidy is the pay-as-you-go employer benefit payments for retirees</li> <li>■ Implied subsidy is the difference between the actual cost of retiree benefits and retiree premiums subsidized by active employee premiums</li> </ul>

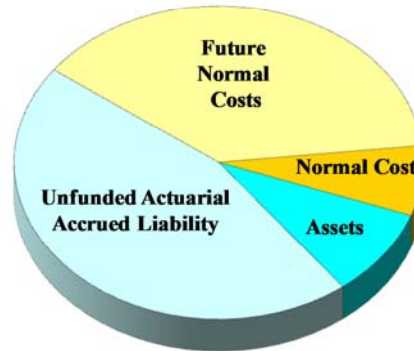
## DEFINITIONS

### Present Value of Benefits

**Present Value of Benefits  
(Without Plan Assets)**



**Present Value of Benefits  
(With Plan Assets)**



## DEFINITIONS

■ Acronyms  
Used in  
Report

- AAL - Actuarial Accrued Liability
- ADC - Actuarially Determined Contribution
- ARC - Annual Required Contribution
- AVA - Actuarial Value of Assets
- EAN - Entry Age Normal Cost Method
- GASBS 75 - Governmental Accounting Standards Board Statement No. 75
- MVA – Market Value of Assets
- NC - Normal cost
- OPEB - Other (than pensions) Post-Employment Benefits
- PVB - Present Value of Projected Benefits
- UAAL - Unfunded Actuarial Accrued Liability



**City of Sacramento  
Retiree Healthcare Plan**

**June 30, 2020 GASBS 75**

**Accounting Information**

As of Measurement Date June 30, 2019

Based on the June 30, 2019 Actuarial Valuation

Mary Elizabeth Redding, Vice President

Catherine A. Wandro, Assistant Vice President

Daniel Park, Actuarial Analyst

**Bartel Associates, LLC**

Revised September 22, 2020

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## Applicable Dates

### Applicable Dates and Periods

	<b>Fiscal Year Ended June 30, 2020</b>
■ Measurement date	June 30, 2019
■ Measurement period	July 1, 2018 to June 30, 2019
■ Actuarial valuation date	June 30, 2019

## Note Disclosures

### Plan Information

	<b>Fiscal Year Ended June 30, 2020</b>
■ Plan type	Agent Multiple Employer
■ OPEB trust	Yes
■ Special funding situation	No
■ Nonemployer contributing entities	No



**Note Disclosures**

**Expected Long-Term Rate of Return**

	<b>Target Allocation* CERBT-Strategy 1</b>	<b>Expected Real Rate of Return</b>
■ Asset Class Component		
● Global Equity	59%	4.82%
● Fixed Income	25%	1.47%
● TIPS	5%	1.29%
● Commodities	3%	0.84%
● REITs	8%	3.76%
■ Assumed Long-Term Rate of Inflation		2.75%
■ Expected Long-Term Net Rate of Return, Rounded		6.75%

The long-term expected real rates of return are presented as geometric means.

\* Policy target effective October 1, 2018.

**Note Disclosures**

**Covered Participants**

At June 30, 2019, the measurement date, the following numbers of participants were covered by the benefit terms:

	<b>Number of Covered Participants</b>
■ Inactives currently receiving benefits	2,930
■ Inactives entitled to but not yet receiving benefits	239
■ Active employees	3,892
■ Total	7,061

**Note Disclosures**

**Net OPEB Liability/(Asset)**

(Amounts in 000's)

	<b>Fiscal Year Ended</b>	
	<b>6/30/19</b>	<b>6/30/20</b>
	<b>Measurement Date 6/30/18</b>	<b>Measurement Date 6/30/19</b>
■ Total OPEB Liability (TOL)	\$ 399,873	\$ 292,174
■ Fiduciary Net Position (FNP)	37,027	43,270
■ Net OPEB Liability (NOL)	362,846	248,904
■ Funded status (FNP/TOL)	9.3%	14.8%

**Note Disclosures**

**Changes in Net OPEB Liability/(Asset)**

(Amounts in 000's)

	<b>Total OPEB Liability</b>	<b>Fiduciary Net Position</b>	<b>Net OPEB Liability</b>
■ Balance at 6/30/19 (6/30/18 measurement date)	\$ 399,873	\$ 37,027	\$ 362,846
■ Changes for the year			
● Service Cost	9,931	-	9,931
● Interest	18,106	-	18,106
● Changes of benefit terms	383	-	383
● Actual vs. expected experience	(28,948)	-	(28,948)
● Assumption changes	(92,281)	-	(92,281)
● Contributions - employer*	-	18,406	(18,406)
● Contributions - employee	-	303	(303)
● Net investment income	-	2,432	(2,432)
● Benefit payments*	(14,890)	(14,890)	-
● Administrative expenses	-	(8)	8
■ Net Changes	(107,699)	6,243	(113,942)
■ Balance at 6/30/20 (6/30/19 measurement date)	\$ 292,174	\$ 43,270	\$ 248,904

\* See the measurement period column on page 20 for details

**Note Disclosures**

**Sensitivity of Net OPEB Liability/(Asset)**

(Amounts in 000's)

**Changes in the Discount Rate**

	<b>Discount Rate</b>		
	<b>1% Decrease (5.75%)</b>	<b>Current Rate (6.75%)</b>	<b>1% Increase (7.75%)</b>
■ Net OPEB Liability	\$ 284,488	\$ 248,904	\$ 219,155

**Changes in the Healthcare Trend Rate**

	<b>Healthcare Trend Rate</b>		
	<b>1% Decrease</b>	<b>Current Trend</b>	<b>1% Increase</b>
■ Net OPEB Liability	\$ 224,099	\$ 248,904	\$ 278,808

**Note Disclosures**

**OPEB Expense/(Income) for Fiscal Year**

(Amounts in 000's)

	<b>2019/20</b>
	<b>Measurement Period 2018/19</b>
■ OPEB Expense/(Income)*	\$ (3,202)

\* See page 26 for OPEB expense detail, which is not required disclosure.

**Note Disclosures**

**Deferred Outflows/Inflows Balances at June 30, 2020**

(Amounts in 000's)

	<b>June 30, 2020</b>	
	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
■ Differences between expected and actual experience	\$ -	\$ 24,279
■ Changes in assumptions	-	110,542
■ Net difference between projected and actual earnings on plan investments*	-	356
■ Employer contributions made subsequent to the measurement date**	24,598	-
■ Total	24,598	135,177

\* Deferred Inflows and Outflows combined for footnote disclosure.

\*\* See page 20 for details.

**Note Disclosures**

**Recognition of Deferred Outflows and Inflows of Resources  
in Future OPEB Expense**

(Amounts in 000's)

<b>FYE June 30</b>	<b>Deferred Outflows/(Inflows) of Resources</b>
■ 2021	\$ (28,787)
■ 2022	(28,788)
■ 2023	(28,646)
■ 2024	(24,989)
■ 2025	(20,056)
■ Thereafter	(3,911)

**Note Disclosures**

**Significant Actuarial Assumptions Used for Total OPEB Liability**

Actuarial Assumption	June 30, 2019 Measurement Date
■ Actuarial Valuation Date	■ June 30, 2019
■ Municipal Bond Rate	<ul style="list-style-type: none"> <li>■ 2.79% as of June 30, 2019</li> <li>■ 2.98% as of June 30, 2018</li> <li>■ Standard &amp; Poors 20 Year High Grade Rate</li> </ul>
■ Discount Rate and Long-Term Expected Rate of Return on Assets	<ul style="list-style-type: none"> <li>■ 6.75% at June 30, 2019</li> <li>■ 4.50% at June 30, 2018</li> <li>■ Expected City contributions projected to keep sufficient plan assets to pay all benefits from trust</li> </ul>
■ General Inflation	■ 2.75% annually
■ Crossover Test Assumptions	<ul style="list-style-type: none"> <li>■ Assumed \$1.5 million annual contribution until assets equal Present Value of Benefits</li> <li>■ Administrative expenses = 0.05% of assets</li> <li>■ No crossover</li> </ul>
■ Mortality, Retirement, Disability, Termination	<ul style="list-style-type: none"> <li>■ CalPERS 1997-2015 Experience Study</li> <li>■ SCERS - 6/30/19 Valuation Assumptions (limited applicability)</li> </ul>

**Note Disclosures**

**Significant Actuarial Assumptions Used for Total OPEB Liability**

Actuarial Assumption	June 30, 2019 Measurement Date
■ Mortality Improvement	■ Mortality projected fully generational with Scale MP-2019
■ Salary Increases	<ul style="list-style-type: none"> <li>■ Aggregate - 3% annually</li> <li>■ Merit - CalPERS 1997-2015 Experience Study</li> </ul>
■ Medical Trend	<ul style="list-style-type: none"> <li>■ Non-Medicare - 7.5% for 2020, decreasing to an ultimate rate of 4.0% in 2076</li> <li>■ Medicare - 6.5% for 2020, decreasing to an ultimate rate of 4.0% in 2076</li> </ul>
■ Healthcare Participation for Future Retirees	<ul style="list-style-type: none"> <li>■ Medical, dental, and/or vision coverage - varies from 0% to 40% based on percent of benefit earned at retirement</li> <li>■ Assumptions based on study of recent retiree experience</li> </ul>

**Note Disclosures**

**Changes Since June 30, 2018 Measurement Date**

	<b>June 30, 2019 Measurement Date</b>
■ Changes of assumptions	<ul style="list-style-type: none"> <li>■ Discount rate was updated based on results of crossover test</li> <li>■ Demographic assumptions were updated to CalPERS 1997-2015 Experience Study</li> <li>■ Mortality improvement scale was updated to Scale MP-2019</li> </ul>
■ Changes of benefit terms	■ Fire employees hired before 1/1/20 who retire on or after that date do not have 5.28% multiplier in benefit formula
■ Events subsequent to June 30, 2019 measurement date and before June 30, 2020	<ul style="list-style-type: none"> <li>■ PPACA high cost plan excise tax repealed</li> <li>■ Decreases TOL by approximately \$3.8 million</li> </ul>

**Required Supplementary Information**

**Schedule of Changes in Net OPEB Liability/(Asset) and Related Ratios**  
(Amounts in 000's)

	<b>2019/20</b>
	<b>Measurement Period 2018/19</b>
■ Changes in Total OPEB Liability	
● Service Cost	\$ 9,931
● Interest	18,106
● Changes of benefit terms	383
● Actual vs. expected experience	(28,948)
● Assumption changes	(92,281)
● Benefit payments	(14,890)
■ Net Changes	(107,699)
■ Total OPEB Liability (beginning of year)	399,873
■ Total OPEB Liability (end of year)	292,174

**Required Supplementary Information**

**Schedule of Changes in Net OPEB Liability/(Asset) and Related Ratios**

(Amounts in 000's)

	<b>2019/20</b>
	<b>Measurement Period 2018/19</b>
■ Changes in Plan Fiduciary Net Position	
● Contributions - employer	\$ 18,406
● Contributions - employee	303
● Net investment income	2,432
● Benefit payments	(14,890)
● Administrative expenses	(8)
● Other changes	-
● Net Changes	<u>6,243</u>
■ Plan Fiduciary Net Position (beginning of year)	<u>37,027</u>
■ Plan Fiduciary Net Position (end of year)	43,270

**Required Supplementary Information**

**Schedule of Changes in Net OPEB Liability/(Asset) and Related Ratios**

(Amounts in 000's)

	<b>2019/20</b>
■ Net OPEB Liability/(Asset)	\$ 248,904
■ Fiduciary Net Position as a percentage of the Total OPEB Liability	14.8%
■ Covered employee payroll*	245,622
■ Net OPEB Liability as a percentage of covered employee payroll	101.3%

\* For the 12-month period ended on June 30, 2019 (Measurement Date).  
As reported by the City.

**Required Supplementary Information**

**Schedule of Employer Contributions**

(Amounts in 000's)

	<b>Fiscal Year 2019/20</b>
■ Actuarially Determined Contribution (ADC)*	\$ 36,155
■ Contributions in relation to the actuarially determined contribution**	24,598
■ Contribution deficiency/(excess)	11,557
■ Covered employee payroll***	261,187
■ Contributions as a percentage of covered employee payroll	9.4%

\* Employer ADC equals total ADC of \$36,310 less \$155 employee contributions.

\*\* See page 20 for details.

\*\*\* For the 12-month period ended on June 30, 2020 (fiscal year end).

As reported by the City.

**Required Supplementary Information**

**Notes to Schedule of Employer Contribution  
Methods and Assumptions for  
2019/20 Actuarially Determined Contribution**

■ Valuation Date	■ June 30, 2017
■ Actuarial Cost Method	■ Entry Age Normal, Level % of pay
■ Amortization Method	■ Level % of pay
■ Amortization Period	■ 19-year fixed period for 2019/20
■ Asset Valuation Method	■ Investment gains and losses spread over 5-year rolling period
■ Discount Rate	■ 3.95%
■ General Inflation	■ 2.75%
■ Medical Trend	■ Non-Medicare - 7.5% for 2019, decreasing to an ultimate rate of 4.0% in 2076 ■ Medicare - 6.5% for 2019, decreasing to an ultimate rate of 4.0% in 2076
■ Mortality	■ CalPERS 1997-2011 experience study
■ Mortality Improvement	■ Mortality projected fully generational with Scale MP-2016



## Actuarial Certification

This report presents City of Sacramento Retiree Healthcare Plan 2019/20 disclosure under Governmental Accounting Standards Board Statement No. 75 (GASBS 75). The Journal Entries in this report are provided for the City's convenience and are not an actuarial communication and this actuarial certification does not apply to them.

The report provides information intended for reporting under GASBS 75, but may not be appropriate for other purposes. Information provided in this report may be useful to the City for the Plan's financial management. Future valuations may differ significantly if the Plan's experience differs from our assumptions or if there are changes in Plan design, actuarial methods, or actuarial assumptions. The project scope did not include an analysis of this potential variation.

The June 30, 2019 valuation is based on Plan provisions and participant data provided by the City, and asset information, all of which we relied on and did not audit. We reviewed the census data for reasonableness. Additional information on participants included in the valuation and actuarial assumptions can be found in the June 30, 2019 funding actuarial valuation report. As the actuary, Bartel Associates has recommended the assumptions used in this report, and we believe they are reasonable.

To the best of our knowledge, this report is complete and accurate and has been conducted using generally accepted actuarial principles and practices. Additionally, in our opinion, actuarial methods and assumptions comply with GASBS 75. As members of the American Academy of Actuaries meeting the Academy Qualification Standards, we certify the actuarial results and opinions herein.

Respectfully submitted,



Mary Elizabeth Redding, FSA, EA, FCA, MAAA  
Vice President  
Bartel Associates, LLC  
September 22, 2020



Catherine A. Wandro, ASA, FCA, MAAA  
Assistant Vice President  
Bartel Associates, LLC  
September 22, 2020



September 22, 2020

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City of Sacramento

## Supporting Calculations

### Employer Contributions

(Amounts in 000's)

	Measurement Period	Measurement Date to FYE	Prior Measurement Date to Prior FYE
	7/1/18 to 6/30/19	7/1/19 to 6/30/20	Same as Measurement Period
■ Cash benefit payments	\$ 10,407	\$ 10,832	\$ 10,407
■ Implied subsidy benefit payments	4,483	4,932	4,483
■ Total benefit payments	14,890	15,764	14,890
■ Trust reimbursements	-	-	-
■ Benefit payments paid outside of trust	14,890	15,764	14,890
■ Administrative expenses paid outside of trust	-	-	-
■ Trust contributions	3,516	8,834	3,516
■ Total employer contributions	18,406	24,598	18,406

Measurement period (7/1/18 to 6/30/19): \$18,406

Fiscal year (7/1/19 to 6/30/20): \$24,598



September 22, 2020

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City of Sacramento

**Supporting Calculations**

**Average of the Expected Remaining Service Lives\***

As of July 1, 2018 (beginning of the measurement period):

	<b>2019/20</b>
	<b>Measurement Period 2018/19</b>
■ Total expected remaining service lives	40,639 years
■ Covered participants	6,607
■ Average of the expected remaining service lives (not less than 1 year)	6.2 years

\* Estimated from the June 30, 2019 actuarial valuation.



**Supporting Calculations**

**Recognition of Deferred Outflows/Inflows at June 30, 2020**

**Differences between Expected and Actual Experience**

(Amounts in 000's)

Fiscal Year	Initial Amt	Initial Recog Period	Amount Recognized in OPEB Expense for FY							Deferred Balances June 30, 2020	
			19/20	20/21	21/22	22/23	23/24	24/25	25/26+	Outflows	Inflows
17/18	-	-	-	-	-	-	-	-	-	-	-
18/19	-	-	-	-	-	-	-	-	-	-	-
19/20	(28,948)	6.2	(4,669)	(4,669)	(4,669)	(4,669)	(4,669)	(4,669)	(4,669)	(934)	(24,279)
Total			(4,669)	(4,669)	(4,669)	(4,669)	(4,669)	(4,669)	(4,669)	(934)	(24,279)



**Supporting Calculations**

**Recognition of Deferred Outflows/Inflows at June 30, 2020**

**Changes of Assumptions**

(Amounts in 000's)

Fiscal Year	Initial Amt	Initial Recog Period	Amount Recognized in OPEB Expense for FY							Deferred Balances June 30, 2020	
			19/20	20/21	21/22	22/23	23/24	24/25	25/26+	Outflows	(Inflows)
17/18	(24,429)	6.1	(4,005)	(4,005)	(4,005)	(4,005)	(399)	-	-	-	(12,414)
18/19	(30,845)	6.1	(5,057)	(5,057)	(5,057)	(5,057)	(5,057)	(503)	-	-	(20,731)
19/20	(92,281)	6.2	(14,884)	(14,884)	(14,884)	(14,884)	(14,884)	(14,884)	(2,977)	-	(77,397)
Total			(23,946)	(23,946)	(23,946)	(23,946)	(20,340)	(15,387)	(2,977)	-	(110,542)



**Supporting Calculations**

**Recognition of Deferred Outflows/Inflows at June 30, 2020**

**Projected Versus Actual Earnings on Investments**

(Amounts in 000's)

Fiscal Year	Initial Amt	Initial Recog Period	Amount Recognized in OPEB Expense for FY							Deferred Balances June 30, 2020	
			19/20	20/21	21/22	22/23	23/24	24/25	25/26+	Outflows	(Inflows)
17/18	(701)	5.0	(140)	(140)	(141)	-	-	-	-	-	(281)
18/19	(269)	5.0	(54)	(54)	(54)	(53)	-	-	-	-	(161)
19/20	108	5.0	22	22	22	22	20	-	-	86	-
Total			(172)	(172)	(173)	(31)	20	-	-	86	(442)
Net Deferred Outflows/(Inflows)										-	(356)

Calculation of initial amount for 2019/20 (2018/19 measurement period)

Projected earnings on investments of \$2,540 (page 27), less

Actual earnings on investments of \$2,432 (net investment income, page 15)



**Supporting Calculations**

**Recognition of Deferred Outflows/Inflows in Future OPEB Expense**

(Amounts in 000's)

	20/21	21/22	22/23	23/24	24/25	Thereafter 25/26+
■ Differences between Expected and Actual Experience	\$ (4,669)	\$ (4,669)	\$ (4,669)	\$ (4,669)	\$ (4,669)	\$ (934)
■ Changes of Assumptions	(23,946)	(23,946)	(23,946)	(20,340)	(15,387)	(2,977)
■ Projected Versus Actual Earnings on Investments	(172)	(173)	(31)	20	-	-
■ Total	(28,787)	(28,788)	(28,646)	(24,989)	(20,056)	(3,911)



**Supporting Calculations**

**Components of GASBS 75 OPEB Expense/(Income)**

(Amounts in 000's)

	2019/20
	Measurement Period 2018/19
■ Service Cost	\$ 9,931
■ Interest on Total OPEB Liability	18,106
■ Projected earnings on investments	(2,540)
■ Employee contributions	(303)
■ Administrative expense	8
■ Changes of benefit terms	383
■ Recognition of deferred outflows/(inflows)	
● Experience	(4,669)
● Assumptions	(23,946)
● Asset returns	(172)
■ OPEB Expense/(Income)	(3,202)



**Supporting Calculations**

**Components of GASBS 75 OPEB Expense\***  
**Calculation of Projected Earnings on Investments**  
 (Amounts in 000's)

	Dollar Amount	Expected Return	Portion of Year	Projected Earnings
■ Fiduciary Net Position (beginning of year)	\$ 37,027	6.75%	100%	\$ 2,499
■ Employer contributions	3,516	6.75%	13%	31
■ Employee contributions	303	6.75%	49%	10
■ Benefit payments	-	6.75%	0%	-
■ Administrative expenses	(8)	6.75%	50%	-
■ Projected earnings				2,540

\* The items on this page reflect trust activity only.

**Supporting Calculations**

**Components of GASBS 75 OPEB Expense**  
**Calculation of Interest on Total OPEB Liability**  
 (Amounts in 000's)

	Dollar Amount	Discount Rate	Portion of Year	Interest
■ Total OPEB Liability	\$ 399,873	4.50%	100%	\$ 17,994
■ Service Cost	9,931	4.50%	100%	447
■ Changes of benefit	383	4.50%	0%	-
■ Experience*	(28,948)	4.50%	0%	-
■ Assumption changes*	(92,281)	4.50%	0%	-
■ Benefit payments	(14,890)	4.50%	50%	(335)
■ Total interest				18,106

\* Liability determined as of the end of the measurement period, so no interest charge is applicable.

**Supporting Calculations**

**GASBS 75 Balance Equation**

(Amounts in 000's)

	<b>Fiscal Year Ended</b>	
	<b>6/30/19</b>	<b>6/30/20</b>
	<b>Measurement Date 6/30/18</b>	<b>Measurement Date 6/30/19</b>
■ Total OPEB Liability	\$ 399,873	\$ 292,174
■ Fiduciary Net Position	37,027	43,270
■ Net OPEB Liability/(Asset)	362,846	248,904
■ Deferred inflows of resources	42,843	135,177
■ Deferred (outflows) of resources	-	-
■ Balance Sheet	405,689	384,081

Check:

■ Balance Sheet 6/30/19	\$ 405,689
● OPEB Expense	(3,202)
● Employer Contributions*	(18,406)
■ Balance Sheet 6/30/20	384,081

\* See the measurement period column on page 20 for details.

**Supporting Calculations**

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**Journal Entries**

**Employer Contributions**

(Amounts in 000's)

The entries below assume cash benefit payments, Trust contributions, and administrative expenses have been charged to OPEB Expense when paid, and that no accounting entries have been made for the current year implied subsidy payment, which is recorded as a reduction to active employee health care costs. See page 20 for details.

Following records the impact of employer contributions as deferred outflows of resources and as a reduction to Net OPEB Liability.

	<b>Debit</b>	<b>(Credit)</b>
■ Net OPEB Liability - (for contributions paid 7/1/18 to 6/30/19)	\$ 18,406	\$ -
■ Deferred Outflow - 7/1/18 to 6/30/19 contributions	-	(18,406)
■ Deferred Outflow - 7/1/19 to 6/30/20 contributions	24,598	-
■ Active employee health care costs - (implied subsidy payments 7/1/19 to 6/30/20)	-	(4,932)
■ OPEB Expense - (for contributions paid 7/1/19 to 6/30/20)	-	(19,666)

*Check* 43,004 (43,004)



**Journal Entries**

**Summary Journal Entries - OPEB Expense**

(Amounts in 000's)

Following records the impact of current year OPEB expense

	<b>Debit</b>	<b>(Credit)</b>
■ Deferred Outflows*	\$ -	\$ -
■ Deferred Inflows**	280	(92,614)
■ OPEB Expense/Credit	-	(3,202)
■ Net OPEB Liability	95,536	-

*Check* 95,816 (95,816)

\* See page 34 ('Subtotal' row) for details.

\*\* See page 35 for details.



**Journal Entries**

**Ending Balances at June 30, 2020**

(Amounts in 000's)

	<b>Debit</b>	<b>(Credit)</b>
■ Deferral: Differences between expected and actual experience	\$ -	\$ (24,279)
■ Deferral: Changes of assumptions	-	(110,542)
■ Deferral: Net differences between projected and actual earnings on plan investments	-	(356)
■ Total deferred outflow/inflow	-	(135,177)
■ Net OPEB Liability (NOL)	-	(248,904)
■ Contributions after the Measurement Date	24,598	-
■ Net Impact	359,483	-

*Check:* 384,081 (384,081)

■ Total OPEB expense/(income) for FYE 2020	-	(3,202)
--	---	---------

**Journal Entries**

**Reconciliation of Deferred Outflows**

**Detail for page 32**

(Amounts in 000's)

<b>Deferred Outflows</b>	<b>Opening Balance - Debit</b>	<b>Journal Entry - Debit</b>	<b>Journal Entry - (Credit)</b>	<b>Ending Balance - Debit</b>
■ Differences between actual and expected experience	\$ -	\$ -	\$ -	\$ -
■ Change in assumptions	-	-	-	-
■ Differences between projected and actual earnings on plan investments	-	-	-	-
■ Subtotal - actuarial deferrals	-	-	-	-
■ Contributions after the Measurement Date	18,406	24,598	(18,406)	24,598
■ Total Deferred Outflows	18,406	24,598	(18,406)	24,598



**Journal Entries**

**Reconciliation of Deferred Inflows**

**Detail for page 32**  
(Amounts in 000's)

<b>Deferred Inflows</b>	<b>Opening Balance - (Credit)</b>	<b>Journal Entry - (Credit)</b>	<b>Journal Entry - Debit</b>	<b>Ending Balance - (Credit)</b>
■ Differences between actual and expected experience	\$ -	\$ (24,279)	\$ -	\$ (24,279)
■ Change in assumptions	(42,207)	(68,335)	-	(110,542)
■ Differences between projected and actual earnings on plan investments	(636)	-	280	(356)
■ Total Deferred (Inflows)	(42,843)	(92,614)	280	(135,177)

**Journal Entries**

**Reconciliation of Deferred Outflows/(Inflows)**

**Summary of Balances**  
(Amounts in 000's)

	<b>Fiscal Year Ended</b>	
	<b>6/30/19</b>	<b>6/30/20</b>
	<b>Measurement Date 6/30/18</b>	<b>Measurement Date 6/30/19</b>
■ Total OPEB (Liability)	\$ (399,873)	\$ (292,174)
■ Fiduciary Net Position	37,027	43,270
■ Net OPEB (Liability)/Asset	(362,846)	(248,904)
■ Deferred (inflows) of resources	(42,843)	(135,177)
■ Deferred outflows of resources	18,406	24,598
■ Balance Sheet Impact	(387,283)	(359,483)

Deferred Outflows include contributions after the measurement date.

## Crossover Test

### Discount Rate Crossover Test

#### Projection of Contributions

(Amounts in 000's)

Year	Payroll for Current Employees	Employer Contributions for Current Employees	Employee Contributions for Current Employees	Employer Contributions for Future Employees	Total Employer Contributions for Current Employees
1	\$ 320,534	\$ 23,990	\$ 310	\$ 0	\$ 24,300
2	316,145	17,301	0	0	17,301
3	311,866	17,886	0	0	17,886
4	307,329	18,421	0	0	18,421
5	302,270	19,231	0	0	19,231
6	296,569	20,002	0	0	20,002
7	289,474	20,760	0	0	20,760
8	282,057	21,526	0	0	21,526
9	273,744	22,215	0	0	22,215
10	264,831	22,875	0	0	22,875
*	*	*	*	*	*
25	112,332	25,998	0	0	25,998
26	101,767	24,662	0	0	24,662
27	90,850	23,784	0	0	23,784
28	79,768	22,651	0	0	22,651
29	68,494	21,121	0	0	21,121
*	*	*	*	*	*
85	0	0	0	0	0
86	0	0	0	0	0
87	0	0	0	0	0
88	0	0	0	0	0
89	0	0	0	0	0



## Crossover Test

### Discount Rate Crossover Test

#### Projection of Fiduciary Net Position

(Amounts in 000's)

Year	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Admin Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
1	\$ 43,294	\$ 24,300	\$ 15,156	\$ 23	\$ 3,162	\$ 55,577
2	55,577	17,301	16,001	28	3,150	59,999
3	59,999	17,886	16,790	30	3,404	64,469
4	64,469	18,421	17,536	32	3,738	69,060
5	69,060	19,231	18,568	35	4,048	73,736
6	73,736	20,002	19,576	37	4,297	78,422
7	78,422	20,760	20,596	39	4,595	83,142
8	83,142	21,526	21,633	42	4,870	87,864
9	87,864	22,215	22,610	44	5,210	92,635
10	92,635	22,875	23,572	46	5,530	97,422
*	*	*	*	*	*	*
25	155,740	25,998	32,222	78	9,498	158,936
26	158,936	24,662	31,317	79	9,741	161,943
27	161,943	23,784	30,884	81	9,956	164,718
28	164,718	22,651	30,206	82	10,163	167,243
29	167,243	21,121	29,144	84	10,366	169,503
*	*	*	*	*	*	*
85	53	0	24	0	3	32
86	32	0	15	0	2	18
87	18	0	9	0	1	10
88	10	0	6	0	0	5
89	5	0	3	0	0	2



**Crossover Test**

**Discount Rate Crossover Test**  
**Present Values of Projected Benefit Payments**  
 (Amounts in 000's)

Year	Projected Beginning Fiduciary Net Position	Projected Benefit Payments	"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments	PV of "Funded" Portion of Benefit Payments	PV of "Unfunded" Portion of Benefit Payments	PV of Benefit Payments @ 6.75%
1	\$ 43,294	\$ 15,156	\$ 15,156	\$ 0	\$ 14,669	\$ 0	\$ 14,669
2	55,577	16,001	16,001	0	14,508	0	14,508
3	59,999	16,790	16,790	0	14,260	0	14,260
4	64,469	17,536	17,536	0	13,952	0	13,952
5	69,060	18,568	18,568	0	13,839	0	13,839
6	73,736	19,576	19,576	0	13,668	0	13,668
7	78,422	20,596	20,596	0	13,471	0	13,471
8	83,142	21,633	21,633	0	13,254	0	13,254
9	87,864	22,610	22,610	0	12,977	0	12,977
10	92,635	23,572	23,572	0	12,674	0	12,674
*	*	*	*	*	*	*	*
25	155,740	32,222	32,222	0	6,503	0	6,503
26	158,936	31,317	31,317	0	5,921	0	5,921
27	161,943	30,884	30,884	0	5,470	0	5,470
28	164,718	30,206	30,206	0	5,012	0	5,012
29	167,243	29,144	29,144	0	4,530	0	4,530
*	*	*	*	*	*	*	*
85	53	24	24	0	0	0	0
86	32	15	15	0	0	0	0
87	18	9	9	0	0	0	0
88	10	6	6	0	0	0	0
89	5	3	3	0	0	0	0
*	*	*	*	*	*	*	*
Total					343,709	0	343,709

**Crossover Test**

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