



Municipal Market Disclosure Information Cover Sheet

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
78605QAE7, 78605QAF4, 78605QAG2, 78605QAH0, 78605QAJ6

TYPE OF FILING:

If information is also available on the Internet, give URL: 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)
2019 Operating Data - Series 2015 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:

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State: FL

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Email Address: emmaagent@dacbond.com

Relationship to Issuer: Dissemination Agent

Authorized By:

Name: Brian Wong

Title: Debt Manager

Entity: City of Sacramento, CA

Digital Assurance Certification

Filing Certificate

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

Transmission Details: ES1044352

Date & Time Stamp: 03/16/2020
Document Name or Event Type: Annual Financial Information & Operating Data (Rule 15c2-12)
Document Description: 2019 Operating Data - Series 2015 G1C
DAC Bond Coversheet: Yes
Transmitted to: MSRB-EMMA
Total CUSIPs associated with this Filing: 5
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

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

CUSIP: 78605QAE7, 78605QAF4, 78605QAG2, 78605QAH0, 78605QAJ6

No missing CUSIPs for this bond issue

City of Sacramento
Annual Continuing Disclosure Report
Fiscal Year 2018-19

Issue	Sacramento Public Financing Authority 2015 Lease Revenue Bonds (Golden 1 Center) (Federally Taxable)
Par	\$ 272,870,000
Issued	September 24, 2015
CUSIP Numbers	78605QAE7 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 comprehensive audited financial report for the prior fiscal year.

The City's Comprehensive Annual Financial Report (CAFR) for the prior fiscal year was uploaded as a separate document to EMMA and is also available on the City's website at:

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

C. An update of the information contained in Tables entitled "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" in the Official Statement substantially in the form of the table by that name included in Appendix A to the Official Statement, for the most recently completed fiscal year.

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, 2019*

* Please note that consistent with FY19 disclosure filings of various Sacramento City Financing Authority and Sacramento Public Financing Authority bond issues, the offsets for the 2015 Lease Revenue Bonds (Golden 1 Center) reflect the anticipated funding support from the Parking Fund and other non-general fund sources.

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.

Exhibit E – GASB 68 Accounting Valuation Report – Miscellaneous Plan as of June 30, 2018

Exhibit F – GASB 68 Accounting Valuation Report – Safety Plan as of June 30, 2018

Exhibit G – SCERS Actuarial Valuation – as of June 30, 2018

E. Additional Voluntary Disclosures:

Exhibit H – GASB 45 Actuarial Valuation Report of Retiree Healthcare Plan – as of June 30, 2017

Exhibit I – GASB 75 Retiree Healthcare Plan as of June 30, 2018

Exhibit A

**STATEMENT OF GENERAL FUND REVENUES, EXPENDITURES AND
CHANGES IN FUND BALANCE
(in thousands)**

	Actual 2014-15	Actual 2015-16	Actual 2016-17	Actual 2017-18	Actual 2018-19
Revenues:					
Property taxes	\$ 145,285	\$ 150,424	\$ 143,656	\$ 153,346	\$ 164,412
Sales and use taxes	58,876	67,983	80,395	84,887	93,769
Utilities use tax	59,948	61,404	62,997	62,989	60,128
Other taxes	22,677	26,732	29,961	36,184	39,820
Licenses and permits	14,322	15,866	18,048	22,018	22,537
Fines, forfeitures and penalties	10,782	12,110	10,906	12,069	15,964
Interest, rents and concessions	1,707	3,002	2,679	1,195	7,810
Intergovernmental revenues	13,363	16,253	14,009	22,380	16,350
Charges, fees and services	57,261	57,951	68,012	78,563	86,859
Other revenues	426	245	259	301	536
Total revenues:	384,647	411,970	430,922	473,932	508,185
Expenditures:					
General government	24,842	28,909	36,584	48,694	56,498
Public safety	226,802	235,290	244,976	257,910	276,961
Public works	16,169	11,701	14,438	15,423	17,386
Neighborhood services	52,071	54,985	62,972	68,768	73,428
Citywide and community support	37,216	47,961	48,435	46,576	42,827
Capital outlay	8,901	12,577	19,276	21,513	19,392
Debt service	3,219	3,219	2,837	2,102	1,189
Total expenditures:	369,220	394,642	428,518	460,986	487,681
Excess of revenues over expenditures	15,427	17,328	1,404	12,946	20,504
Other financing sources (uses):					
Transfers from other funds	31,275	34,256	33,113	35,414	38,652
Transfers to other funds	(25,265)	(25,032)	(28,959)	(31,545)	(27,919)
Proceeds from long-term debt	-	-	-	-	-
Proceeds from sale of capital assets	3,100	-	-	-	-
Special item	-	-	-	-	7,000
Total other financing sources (uses):	9,110	9,224	4,154	3,869	17,733
Net Change In Fund Balance	24,537	26,552	5,558	16,815	38,237
Fund Balance, beginning of year	98,907	123,444	149,996	155,554	172,369
Fund Balance, end of year	\$ 123,444	\$ 149,996	\$ 155,554	\$ 172,369	\$ 210,606
Less reserves and commitments:					
Nonspendable	11	2	3,812	3,845	-
Restricted	3,654	2,962	17	-	-
Committed:					
Economic uncertainty	38,967	46,950	49,644	52,700	55,200
Capital projects	32,987	37,526	49,265	37,583	39,995
Fire programs	-	5,720	1,386	6,189	9,568
Community center theater renovation	8,500	8,550	-	-	-
Homeless programs	750	250	-	-	-
OPEB and pension trust fund	-	6,752	5,324	7,619	20,144
Other programs	22,497	13,953	21,367	39,412	52,395
Assigned:					
Unrealized investment gains	50	732	-	-	381
Unassigned fund balance	\$ 16,028	\$ 26,649	\$ 24,739	\$ 25,021	\$ 32,923

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 ⁽¹⁾				Exemptions	Net Assessed Taxable Value	Total Direct Tax Rate ⁽²⁾
	Real Property	Personal Property	Public Utility	Total			
2010	\$ 37,446,222	\$ 1,819,726	\$ 11,937	\$ 39,277,885	\$ 499,878	\$ 38,778,007	1.00
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

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 easily determined as the property in the City is not reassessed annually. Reassessment normally occurs when ownership changes.

(2) 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	2019			2010		
	Assessed Valuation	Rank	Percentage of Total Assessed Valuation	Assessed Valuation	Rank	Percentage of Total Assessed Valuation
Sacramento Kings	\$ 411,411	1	0.82 %	\$ -	-	- %
SG Downtown	218,247	2	0.43	-	-	-
400 Capitol Mall Owner LP	179,143	3	0.36	-	-	-
Arden Fair Associates	147,235	4	0.29	130,092	4	0.33
500 Capitol Mall LLC	141,721	5	0.28	-	-	-
621 Capitol Mall LLC	134,067	6	0.27	95,387	8	0.24
GV/HI PK TOWER OWNER LLC	122,910	7	0.24	-	-	-
300 Capitol Assoc NF LP	117,700	8	0.23	135,252	3	0.35
M&H RLTY Partners VI Limited Partnership	107,601	9	0.21	91,154	9	0.23
HP Hood LLC	105,132	10	0.21	-	-	-
Hines VAF II Sacramento	-	-	-	479,888	1	1.23
Teachers Ins. Annuity	-	-	-	168,732	2	0.43
CIM Sacramento LLC	-	-	-	129,852	5	0.33
Downtown Plaza LLC	-	-	-	128,747	6	0.33
CLPF Promenade LP	-	-	-	125,265	7	0.32
Sacramento Equities REIT	-	-	-	89,250	10	0.23
	<u>1,685,167</u>		<u>3.34</u>	<u>1,573,619</u>		<u>4.02</u>
All other taxpayers	<u>48,667,234</u>		<u>96.66</u>	<u>37,204,388</u>		<u>95.98</u>
Total	<u>\$ 50,352,401</u>		<u>100.00 %</u>	<u>38,778,007</u>		<u>100.00 %</u>

Source: County of Sacramento, Office of Auditor/Controller

Exhibit D

GENERAL FUND OBLIGATION DEBT SERVICE, AS OF JUNE 30, 2019

Forecasted Fiscal Year Net General Fund Revenues

(FY2019-20) 503,100,310

Fiscal Year	1993 Lease Revenue Bonds, Series A&B ¹	1997 Lease Revenue Bonds (2017 Remarketing) ²	2016 Refunding H Street Complex	2006 Capital Improvement Revenue Bonds, Series B ³	2006 Capital Improvement Revenue Bonds, Series E ⁴	2015 Lease Revenue Bonds (Golden 1 Center) ⁵	2015 Revenue Refunding Bonds ⁶	Total General Fund-related Leases & Loans Amount ⁷	Total Debt Service Obligations Amount	Gross Percentage of Budgeted Fiscal Year General Fund Revenues ⁸	Total Offset Debt Service Amount	Total General Fund Debt Service Amount	Net Percentage of Budgeted Fiscal Year General Fund Revenues
FY20	15,369,890	-	674,592	3,952,298	9,568,899.99	18,299,225	21,259,138	2,121,686	71,245,728	14.2%	49,588,585	21,657,143	4.3%
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	13.8%	48,751,096	20,829,450	4.1%
FY22	-	-	672,683	3,941,923	10,749,050.00	18,378,701	19,645,288	138,659	53,526,303	10.6%	36,787,244	16,739,059	3.3%
FY23	-	-	673,696	3,940,606	20,588,900.00	18,289,067	9,928,813	69,330	53,490,411	10.6%	36,576,657	16,913,754	3.4%
FY24	-	-	669,283	3,937,750	20,121,668.75	18,289,067	9,922,438	-	52,940,206	10.5%	36,050,050	16,890,157	3.4%
FY25	-	-	674,515	3,933,765	20,020,668.75	18,289,286	9,925,688	-	52,843,922	10.5%	36,014,190	16,829,732	3.3%
FY26	-	-	669,250	3,928,351	20,036,856.25	18,286,258	9,898,313	-	52,819,027	10.5%	35,992,339	16,826,688	3.3%
FY27	-	-	673,630	3,926,060	20,030,900.00	18,289,420	9,904,438	-	52,824,447	10.5%	35,992,936	16,831,511	3.3%
FY28	-	-	672,442	3,926,294	20,031,225.00	18,287,643	9,909,388	-	52,826,991	10.5%	35,998,474	16,828,512	3.3%
FY29	-	-	670,899	3,923,604	20,127,975.00	18,285,364	9,896,838	-	52,904,680	10.5%	36,010,744	16,893,936	3.4%
FY30	-	-	673,859	3,917,692	20,128,787.50	18,286,739	9,897,256	-	52,904,333	10.5%	36,000,349	16,903,984	3.4%
FY31	-	-	676,251	3,908,259	20,128,793.75	18,285,638	5,854,175	-	48,853,116	9.7%	32,972,981	15,880,136	3.2%
FY32	-	-	668,146	3,909,556	20,130,500.00	18,286,217	5,844,050	-	48,838,469	9.7%	32,962,011	15,876,459	3.2%
FY33	-	-	334,686	3,900,987	20,136,150.00	18,282,349	5,394,175	-	48,048,347	9.6%	32,614,224	15,434,123	3.1%
FY34	-	-	-	3,892,251	3,632,925.00	18,283,188	5,384,550	-	31,192,914	6.2%	20,901,927	10,290,987	2.0%
FY35	-	-	-	3,892,453	-	18,282,324	5,130,175	-	27,304,951	5.4%	19,384,515	7,920,437	1.6%
FY36	-	-	-	3,880,993	-	18,283,630	5,120,800	-	27,285,423	5.4%	19,382,366	7,903,057	1.6%
FY37	-	-	-	3,872,424	-	18,280,697	5,120,400	-	27,273,521	5.4%	19,377,540	7,895,981	1.6%
FY38	-	-	-	-	-	18,282,397	-	-	18,282,397	3.6%	18,282,397	-	0.0%
FY39	-	-	-	-	-	18,282,040	-	-	18,282,040	3.6%	18,282,040	-	0.0%
FY40	-	-	-	-	-	18,278,216	-	-	18,278,216	3.6%	18,278,216	-	0.0%
FY41	-	-	-	-	-	18,279,516	-	-	18,279,516	3.6%	18,279,516	-	0.0%
FY42	-	-	-	-	-	18,278,967	-	-	18,278,967	3.6%	18,278,967	-	0.0%
FY43	-	-	-	-	-	18,279,878	-	-	18,279,878	3.6%	18,279,878	-	0.0%
FY44	-	-	-	-	-	18,275,276	-	-	18,275,276	3.6%	18,275,276	-	0.0%
FY45	-	-	-	-	-	18,273,469	-	-	18,273,469	3.6%	18,273,469	-	0.0%
FY46	-	-	-	-	-	18,277,204	-	-	18,277,204	3.6%	18,277,204	-	0.0%
FY47	-	-	-	-	-	18,273,943	-	-	18,273,943	3.6%	18,273,943	-	0.0%
FY48	-	-	-	-	-	18,271,713	-	-	18,271,713	3.6%	18,271,713	-	0.0%
FY49	-	-	-	-	-	18,272,978	-	-	18,272,978	3.6%	18,272,978	-	0.0%
FY50	-	-	-	-	-	18,269,919	-	-	18,269,919	3.6%	18,269,919	-	0.0%
Total	30,718,405	-	9,075,247	70,527,302	254,468,550	566,939,018	179,118,681	3,451,651	1,114,298,853		838,953,749	275,345,104	
Offset	73.7%	#DIV/0!	100.0%	28.3%	63.7%	100.0%	30.8%	83.1%					

The figures above do not reflect the release of respective reserves for final debt service payment if cash reserves are held.

⁽¹⁾ 1993 Lease A: 80.5% Community Center Fund, 11.5% General Fund, and 8.0% Culture and Leisure Fund

1993 Lease B: 47.8% General Fund, 30.2 % Parking Fund, 13.0% Storm Drainage Fund, and 9.0% Community Center Fund

⁽²⁾ 1997 Lease (ARCO Sublease): 1997 Lease Revenue Bonds (2017 Remarketing); On January 22, 2019 the Kings fulfilled their obligation under the lease agreements and the City redeemed the bonds.

⁽³⁾ 2006 Capital Improvement Revenue Bonds, Series B: 71.7% General Fund and 28.3% RASA Master Lease (65th Street, Army Depot, North Sacramento, River District)

⁽⁴⁾ 2006 Capital Improvement Revenue Bonds, Series E: 53.4% Water Fund, 36.4% General Fund, 8.0% North Natomas Fund, 1.1% RASA Master Lease (Stockton Boulevard), 0.9% Culture and Leisure Fund, and 0.2% Fleet Fund

⁽⁵⁾ 2015 Lease Revenue Bonds (Golden 1 Center): 62.4% Lease Rental Payments from the Sacramento Kings or its affiliates and 37.6% Parking Fund.

⁽⁶⁾ 2015 Refunding Revenue Bonds: 69.0% General Fund, 11.5% Water Fund, 9.6% Solid Waste Fund, 9.1% Parking Fund, 0.4% North Natomas Fund, 0.2% Fleet Fund, and 0.2% Culture and Leisure Fund.

⁽⁷⁾ Total leases and loans: 69.0% Parking Fund, 16.9% General Fund, and 14.1% Culture and Leisure Fund.

⁽⁸⁾ Data based on forecasted Fiscal Year 2019-20 Net General Fund Revenue of \$503,100,310.

Source: City of Sacramento



GASB 68 Accounting Report

(CalPERS ID: 7903930500)

Rate Plan Identifier: 1209

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

Measurement Date of June 30, 2018

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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, 2018.

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, 2017 annual funding valuation for the Plan. The census data and benefit provisions underlying the liabilities were prepared as of June 30, 2017 and certified as part of the annual funding valuation by the CalPERS Actuarial Office. The June 30, 2017 liabilities, which were rolled forward to June 30, 2018 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
CalPERS Actuarial Office

Introduction

This is the GASB 68 accounting report for the measurement date June 30, 2018. 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.

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, 2017
Measurement Date	June 30, 2018
Measurement Period	June 30, 2017 to June 30, 2018

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)
Balance at: 06/30/2017	\$1,256,578,743	\$906,649,582	\$349,929,161
Beginning of Year Adjustment	\$0	\$0	\$0
Adjusted Balance at: 06/30/2017	\$1,256,578,743	\$906,649,582	\$349,929,161
Changes Recognized for the Measurement Period:			
Service Cost	\$28,403,688		\$28,403,688
Interest on Total Pension Liability	89,060,339		89,060,339
Changes of Benefit Terms	0		0
Changes of Assumptions	(7,898,485)		(7,898,485)
Differences between Expected and Actual Experience	6,909,054		6,909,054
Net Plan to Plan Resource Movement		\$(1,746)	1,746
Contributions – Employer		29,514,351	(29,514,351)
Contributions – Employees		12,633,667	(12,633,667)
Net Investment Income		76,765,652	(76,765,652)
Benefit Payments, including Refunds of Employee Contributions	(48,383,999)	(48,383,999)	0
Administrative Expense		(1,412,810)	1,412,810
Other Miscellaneous Income/(Expense) ¹		(2,682,950)	2,682,950
Net Changes during 2017-18	\$68,090,597	\$66,432,165	\$1,658,432
Balance at: 06/30/2018	\$1,324,669,340	\$973,081,747	\$351,587,593

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)	\$542,527,902	\$351,587,593	\$194,713,685

¹ 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).

Pension Expense/(Income) for Measurement Period Ended June 30, 2018

Description	Amount
Service Cost	\$28,403,688
Interest on Total Pension Liability	89,060,339
Changes of Benefit Terms	0
Recognized Changes of Assumptions	24,408,411
Recognized Differences between Expected and Actual Experience	1,972,039
Net Plan to Plan Resource Movement	1,746
Employee Contributions	(12,633,667)
Projected Earnings on Pension Plan Investments	(64,336,361)
Recognized Differences between Projected and Actual Earnings on Plan Investments	(2,530,579)
Administrative Expense	1,412,810
Other Miscellaneous (Income)/Expense ¹	2,682,950
Total Pension Expense/(Income)	\$68,441,376

¹ 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).

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, 2018. 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	\$21,705,621	\$(5,174,869)
Differences between Expected and Actual Experience	4,526,622	(239,423)
Net Difference between Projected and Actual Earnings on Pension Plan Investments	1,780,020	0
Total	\$28,012,263	\$(5,414,292)

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
2019	\$32,102,345
2020	2,116,582
2021	(9,135,097)
2022	(2,485,859)
2023	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 2019 measurement period presented in the above table will be listed as year 2020 in the employer's fiscal year ending June 30, 2019 financial statements.

Expected Average Remaining Service Lifetime (EARSL)

The EARSL for the Plan for the measurement period ending June 30, 2018 is 2.9 years, which was obtained by dividing the total service years of 26,895 (the sum of remaining service lifetimes of the active employees) by 9,363 (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	2018	2017	2016	2015	2014
TOTAL PENSION LIABILITY:					
Service Cost	\$28,403,688	\$27,795,727	\$23,374,624	\$22,342,045	\$23,109,946
Interest on Total Pension Liability	89,060,339	84,334,185	79,514,856	74,834,991	70,942,490
Changes of Benefit Terms	0	0	0	0	0
Changes of Assumptions	(7,898,485)	75,969,675	0	(20,152,867)	0
Difference between Expected and Actual Experience	6,909,054	(837,981)	(333,340)	(8,865,289)	0
Benefit Payments, Including Refunds of Employee Contributions	(48,383,999)	(42,304,813)	(37,980,223)	(34,390,309)	(30,239,753)
Net Change in Total Pension Liability	\$68,090,597	\$144,956,793	\$64,575,917	\$33,768,571	\$63,812,683
Total Pension Liability – Beginning	1,256,578,743	1,111,621,950	1,047,046,033	1,013,277,462	949,464,779
Total Pension Liability – Ending (a)	\$1,324,669,340	\$1,256,578,743	\$1,111,621,950	\$1,047,046,033	\$1,013,277,462
PLAN FIDUCIARY NET POSITION					
Contributions – Employer	\$29,514,351	\$28,719,315	\$25,962,718	\$22,826,829	\$21,613,131
Contributions – Employee	12,633,667	12,190,145	11,991,032	11,302,316	11,670,231
Net Investment Income	76,765,652	91,481,199	4,260,663	18,046,623	118,325,674
Benefit Payments, Including Refunds of Employee Contributions	(48,383,999)	(42,304,813)	(37,980,223)	(34,390,309)	(30,239,753)
Net Plan to Plan Resource Movement	(1,746)	73,647	530,976	(3,066,289)	0
Administrative Expense	(1,412,810)	(1,207,275)	(495,742)	(921,940)	0
Other Miscellaneous Income/(Expense) ¹	(2,682,950)	0	0	0	0
Net Change in Fiduciary Net Position	\$66,432,165	\$88,952,218	\$4,269,424	\$13,797,230	\$121,369,283
Plan Fiduciary Net Position – Beginning ²	\$906,649,582	\$817,697,364	\$813,427,940	\$799,630,710	\$678,261,427
Plan Fiduciary Net Position – Ending (b)	973,081,747	906,649,582	817,697,364	813,427,940	799,630,710
Plan Net Pension Liability/(Asset) – (a)-(b)	\$351,587,593	\$349,929,161	\$293,924,586	\$233,618,093	\$213,646,752
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	73.46%	72.15%	73.56%	77.69%	78.92%
Covered Payroll	\$181,331,004	\$176,795,109	\$166,402,958	\$157,449,221	\$156,032,311
Plan Net Pension Liability/(Asset) as a Percentage of Covered Payroll	193.89%	197.93%	176.63%	148.38%	136.92%

¹ 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).

² Includes any beginning of year adjustment.

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, 2017 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: In 2018, demographic assumptions and inflation rate were changed in accordance to the CalPERS Experience Study and Review of Actuarial 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 30¹

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

¹ 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.

² 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.

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

Schedules of Required Supplementary Information (continued)

Notes to Schedule of Plan Contributions:

The actuarial methods and assumptions used to set the actuarially determined contributions for Fiscal Year 2017-18 were derived from the June 30, 2015 funding valuation report.

Actuarial Cost Method	Entry Age Normal
Amortization Method/Period	For details, see June 30, 2015 Funding Valuation Report.
Asset Valuation Method	Market Value of Assets. For details, see June 30, 2015 Funding Valuation Report.
Inflation	2.75%
Salary Increases	Varies by Entry Age and Service
Payroll Growth	3.00%
Investment Rate of Return	7.50% 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 year's 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						
			2018	2019	2020	2021	2022	2023	Thereafter
2014	\$0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2015	(20,152,867)	0	0	0	0	0	0	0	0
2016	0	0	0	0	0	0	0	0	0
2017	75,969,675	1.8	27,132,027	21,705,621	0	0	0	0	0
2018	(7,898,485)	2.9	(2,723,616)	(2,723,616)	(2,451,253)	0	0	0	0
Net Increase (Decrease) in Pension Expense			\$24,408,411	\$18,982,005	\$(2,451,253)	\$0	\$0	\$0	\$0

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, 2018 (c)	Balances at June 30, 2018	
				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	54,264,054	21,705,621	0
2018	0	(7,898,485)	(2,723,616)	0	(5,174,869)
				\$21,705,621	\$(5,174,869)

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						
			2018	2019	2020	2021	2022	2023	Thereafter
2014	\$0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2015	(8,865,289)	0	0	0	0	0	0	0	0
2016	(333,340)	1.0	(111,114)	0	0	0	0	0	0
2017	(837,981)	1.8	(299,279)	(239,423)	0	0	0	0	0
2018	6,909,054	2.9	2,382,432	2,382,432	2,144,190	0	0	0	0
Net Increase (Decrease) in Pension Expense			\$1,972,039	\$2,143,009	\$2,144,190	\$0	\$0	\$0	\$0

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, 2018 (c)	Balances at June 30, 2018	
				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)	(598,558)	0	(239,423)
2018	6,909,054	0	2,382,432	4,526,622	0
				\$4,526,622	\$(239,423)

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						
			2018	2019	2020	2021	2022	2023	Thereafter
2014	\$(67,539,546)	1.0	\$(13,507,910)	\$0	\$0	\$0	\$0	\$0	\$0
2015	42,768,440	2.0	8,553,688	8,553,688	0	0	0	0	0
2016	57,793,697	3.0	11,558,739	11,558,739	11,558,741	0	0	0	0
2017	(33,246,191)	4.0	(6,649,238)	(6,649,238)	(6,649,238)	(6,649,239)	0	0	0
2018	(12,429,291)	5.0	(2,485,858)	(2,485,858)	(2,485,858)	(2,485,858)	(2,485,859)	0	0
Net Increase (Decrease) in Pension Expense			\$(2,530,579)	\$10,977,331	\$2,423,645	\$(9,135,097)	\$(2,485,859)	\$0	\$0

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, 2018 (c)	Balances at June 30, 2018	
				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	34,214,752	8,553,688	0
2016	57,793,697	0	34,676,217	23,117,480	0
2017	0	(33,246,191)	(13,298,476)	0	(19,947,715)
2018	0	(12,429,291)	(2,485,858)	0	(9,943,433)
				\$31,671,168	\$(29,891,148)
				Net Deferred Outflows/(Inflows) of Resources	
				(d) + (e)	
				\$1,780,020	

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						
	2018	2019	2020	2021	2022	2023	Thereafter
Changes of Assumptions Differences between Expected and Actual Experience	\$24,408,411	\$18,982,005	\$(2,451,253)	\$0	\$0	\$0	\$0
Net Differences between Projected and Actual Earnings on Pension Plan Investments	1,972,039	2,143,009	2,144,190	0	0	0	0
	(2,530,579)	10,977,331	2,423,645	(9,135,097)	(2,485,859)	0	0
Grand Total	\$23,849,871	\$32,102,345	\$2,116,582	\$(9,135,097)	\$(2,485,859)	\$0	\$0

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

Interest on Total Pension Liability	Amount for Period (a)	Portion of Period (b)	Interest Rate (c)	Interest on the Total Pension Liability (a) X (b) X (c)
Beginning Total Pension Liability	\$1,256,578,743	100%	7.15%	\$89,845,380
Changes of Benefit Terms	0	100%	7.15%	0
Changes of Assumptions	(7,898,485)	100%	7.15%	(564,742)
Difference between Expected and Actual Experience	6,909,054	100%	7.15%	493,997
Service Cost	28,403,688	50%	7.15%	1,015,432
Benefit Payments, including Refunds of Employee Contributions	(48,383,999)	50%	7.15%	(1,729,728)
Total Interest on Total Pension Liability				\$89,060,339

Projected Earnings on Pension Plan Investments	Amount for Period (a)	Portion of Period (b)	Projected Rate of Return (c)	Projected Earnings (a) X (b) X (c)
Beginning Plan Fiduciary Net Position excluding Receivables ¹	\$904,975,977	100%	7.15%	\$64,705,782
Net Plan to Plan Resource Movement	(1,746)	50%	7.15%	(62)
Employer Contributions	29,514,351	50%	7.15%	1,055,138
Employee Contributions	12,633,667	50%	7.15%	451,654
Benefit Payments, including Refunds of Employee Contributions	(48,383,999)	50%	7.15%	(1,729,728)
Administrative Expense	(1,412,810)	50%	7.15%	(50,508)
Other Miscellaneous Income/(Expense) ²	(2,682,950)	50%	7.15%	(95,915)
Total Projected Earnings				\$64,336,361

¹ Includes any beginning of year adjustment. Contribution receivables for employee service buybacks, totaling \$1,673,605 as of June 30, 2017, were excluded for purposes of calculating projected earnings on pension plan investments.

² 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).



GASB 68 Accounting Report

(CalPERS ID: 7903930500)

Rate Plan Identifier: 1210

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

Measurement Date of June 30, 2018

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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 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, 2018.

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, 2017 annual funding valuation for the Plan. The census data and benefit provisions underlying the liabilities were prepared as of June 30, 2017 and certified as part of the annual funding valuation by the CalPERS Actuarial Office. The June 30, 2017 liabilities, which were rolled forward to June 30, 2018 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
CalPERS Actuarial Office

Introduction

This is the GASB 68 accounting report for the measurement date June 30, 2018. 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.

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, 2017
Measurement Date	June 30, 2018
Measurement Period	June 30, 2017 to June 30, 2018

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)
Balance at: 06/30/2017	\$1,824,826,526	\$1,233,345,915	\$591,480,611
Beginning of Year Adjustment	\$0	\$0	\$0
Adjusted Balance at: 06/30/2017	\$1,824,826,526	\$1,233,345,915	\$591,480,611
Changes Recognized for the Measurement Period:			
Service Cost	\$38,385,859		\$38,385,859
Interest on Total Pension Liability	127,930,127		127,930,127
Changes of Benefit Terms	0		0
Changes of Assumptions	(17,241,688)		(17,241,688)
Differences between Expected and Actual Experience	3,954,107		3,954,107
Net Plan to Plan Resource Movement		\$(3,555)	3,555
Contributions – Employer		41,588,489	(41,588,489)
Contributions – Employees		21,563,568	(21,563,568)
Net Investment Income		104,660,890	(104,660,890)
Benefit Payments, including Refunds of Employee Contributions	(82,998,648)	(82,998,648)	0
Administrative Expense		(1,921,893)	1,921,893
Other Miscellaneous Income/(Expense) ¹		(3,649,707)	3,649,707
Net Changes during 2017-18	\$70,029,757	\$79,239,144	\$(9,209,387)
Balance at: 06/30/2018	\$1,894,856,283	\$1,312,585,059	\$582,271,224

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)	\$849,975,680	\$582,271,224	\$363,215,128

¹ 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).

Pension Expense/(Income) for Measurement Period Ended June 30, 2018

Description	Amount
Service Cost	\$38,385,859
Interest on Total Pension Liability	127,930,127
Changes of Benefit Terms	0
Recognized Changes of Assumptions	11,547,194
Recognized Differences between Expected and Actual Experience	556,527
Net Plan to Plan Resource Movement	3,555
Employee Contributions	(21,563,568)
Projected Earnings on Pension Plan Investments	(87,193,845)
Recognized Differences between Projected and Actual Earnings on Plan Investments	(3,745,940)
Administrative Expense	1,921,893
Other Miscellaneous (Income)/Expense ¹	3,649,707
Total Pension Expense/(Income)	\$71,491,509

¹ 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).

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, 2018. 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	\$66,651,324	\$(21,004,676)
Differences between Expected and Actual Experience	9,299,357	(9,538,808)
Net Difference between Projected and Actual Earnings on Pension Plan Investments	3,433,052	0
Total	\$79,383,733	\$(30,543,484)

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
2019	\$27,995,434
2020	19,639,223
2021	2,752,957
2022	(795,239)
2023	(752,126)
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 2019 measurement period presented in the above table will be listed as year 2020 in the employer's fiscal year ending June 30, 2019 financial statements.

Expected Average Remaining Service Lifetime (EARSL)

The EARSL for the Plan for the measurement period ending June 30, 2018 is 5.3 years, which was obtained by dividing the total service years of 15,183 (the sum of remaining service lifetimes of the active employees) by 2,887 (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	2018	2017	2016	2015	2014
TOTAL PENSION LIABILITY:					
Service Cost	\$38,385,859	\$37,372,520	\$31,672,063	\$29,653,042	\$29,538,887
Interest on Total Pension Liability	127,930,127	123,131,887	118,821,553	112,331,793	107,188,618
Changes of Benefit Terms	0	0	0	0	0
Changes of Assumptions	(17,241,688)	107,046,066	0	(28,604,249)	0
Difference between Expected and Actual Experience	3,954,107	(15,086,475)	14,397,639	(592,555)	0
Benefit Payments, Including Refunds of Employee Contributions	(82,998,648)	(78,231,814)	(74,572,323)	(70,544,699)	(66,215,114)
Net Change in Total Pension Liability	\$70,029,757	\$174,232,184	\$90,318,932	\$42,243,332	\$70,512,391
Total Pension Liability – Beginning	1,824,826,526	1,650,594,342	1,560,275,410	1,518,032,078	1,447,519,687
Total Pension Liability – Ending (a)	\$1,894,856,283	\$1,824,826,526	\$1,650,594,342	\$1,560,275,410	\$1,518,032,078
PLAN FIDUCIARY NET POSITION					
Contributions – Employer	\$41,588,489	\$40,608,891	\$36,000,897	\$30,798,271	\$27,934,662
Contributions – Employee	21,563,568	18,980,493	18,465,310	15,564,873	16,094,362
Net Investment Income	104,660,890	125,585,855	4,971,102	25,341,704	171,794,710
Benefit Payments, Including Refunds of Employee Contributions	(82,998,648)	(78,231,814)	(74,572,323)	(70,544,699)	(66,215,114)
Net Plan to Plan Resource Movement	(3,555)	(73,647)	(340)	533	0
Administrative Expense	(1,921,893)	(1,665,625)	(697,193)	(1,287,544)	0
Other Miscellaneous Income/(Expense) ¹	(3,649,707)	0	0	0	0
Net Change in Fiduciary Net Position	\$79,239,144	\$105,204,153	\$(15,832,547)	\$(126,862)	\$149,608,620
Plan Fiduciary Net Position – Beginning ²	\$1,233,345,915	\$1,128,141,762	\$1,143,974,309	\$1,144,101,171	\$994,492,551
Plan Fiduciary Net Position – Ending (b)	1,312,585,059	1,233,345,915	1,128,141,762	1,143,974,309	1,144,101,171
Plan Net Pension Liability/(Asset) – (a)-(b)	\$582,271,224	\$591,480,611	\$522,452,580	\$416,301,101	\$373,930,907
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	69.27%	67.59%	68.35%	73.32%	75.37%
Covered Payroll	\$132,205,472	\$126,437,920	\$120,120,082	\$112,067,431	\$107,176,397
Plan Net Pension Liability/(Asset) as a Percentage of Covered Payroll	440.43%	467.80%	434.94%	371.47%	348.89%

¹ 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).

² Includes any beginning of year adjustment.

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, 2017 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: In 2018, demographic assumptions and inflation rate were changed in accordance to the CalPERS Experience Study and Review of Actuarial 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 30¹

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

¹ 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.

² 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.

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

Schedules of Required Supplementary Information (continued)

Notes to Schedule of Plan Contributions:

The actuarial methods and assumptions used to set the actuarially determined contributions for Fiscal Year 2017-18 were derived from the June 30, 2015 funding valuation report.

Actuarial Cost Method	Entry Age Normal
Amortization Method/Period	For details, see June 30, 2015 Funding Valuation Report.
Asset Valuation Method	Market Value of Assets. For details, see June 30, 2015 Funding Valuation Report.
Inflation	2.75%
Salary Increases	Varies by Entry Age and Service
Payroll Growth	3.00%
Investment Rate of Return	7.50% 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 year's 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						
			2018	2019	2020	2021	2022	2023	Thereafter
2014	\$0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2015	(28,604,249)	2.3	(5,397,028)	(5,397,028)	(1,619,109)	0	0	0	0
2016	0	0	0	0	0	0	0	0	0
2017	107,046,066	4.3	20,197,371	20,197,371	20,197,371	20,197,371	6,059,211	0	0
2018	(17,241,688)	5.3	(3,253,149)	(3,253,149)	(3,253,149)	(3,253,149)	(3,253,149)	(975,943)	0
Net Increase (Decrease) in Pension Expense			\$11,547,194	\$11,547,194	\$15,325,113	\$16,944,222	\$2,806,062	\$(975,943)	\$0

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, 2018 (c)	Balances at June 30, 2018	
				Deferred Outflows of Resources (a) – (c)	Deferred Inflows of Resources (b) – (c)
2014	\$0	\$0	\$0	\$0	\$0
2015	0	(28,604,249)	(21,588,112)	0	(7,016,137)
2016	0	0	0	0	0
2017	107,046,066	0	40,394,742	66,651,324	0
2018	0	(17,241,688)	(3,253,149)	0	(13,988,539)
				\$66,651,324	\$(21,004,676)

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						
			2018	2019	2020	2021	2022	2023	Thereafter
2014	\$0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2015	(592,555)	2.3	(111,803)	(111,803)	(33,540)	0	0	0	0
2016	14,397,639	3.2	2,768,777	2,768,777	2,768,777	553,754	0	0	0
2017	(15,086,475)	4.3	(2,846,505)	(2,846,505)	(2,846,505)	(2,846,505)	(853,950)	0	0
2018	3,954,107	5.3	746,058	746,058	746,058	746,058	746,058	223,817	0
Net Increase (Decrease) in Pension Expense			\$556,527	\$556,527	\$634,790	\$(1,546,693)	\$(107,892)	\$223,817	\$0

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, 2018 (c)	Balances at June 30, 2018	
				Deferred Outflows of Resources (a) – (c)	Deferred Inflows of Resources (b) – (c)
2014	\$0	\$0	\$0	\$0	\$0
2015	0	(592,555)	(447,212)	0	(145,343)
2016	14,397,639	0	8,306,331	6,091,308	0
2017	0	(15,086,475)	(5,693,010)	0	(9,393,465)
2018	3,954,107	0	746,058	3,208,049	0
				\$9,299,357	\$(9,538,808)

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						
			2018	2019	2020	2021	2022	2023	Thereafter
2014	\$(98,188,251)	1.0	\$(19,637,651)	\$0	\$0	\$0	\$0	\$0	\$0
2015	61,061,962	2.0	12,212,392	12,212,394	0	0	0	0	0
2016	81,619,456	3.0	16,323,891	16,323,891	16,323,892	0	0	0	0
2017	(45,755,815)	4.0	(9,151,163)	(9,151,163)	(9,151,163)	(9,151,163)	0	0	0
2018	(17,467,045)	5.0	(3,493,409)	(3,493,409)	(3,493,409)	(3,493,409)	(3,493,409)	0	0
Net Increase (Decrease) in Pension Expense			\$(3,745,940)	\$15,891,713	\$3,679,320	\$(12,644,572)	\$(3,493,409)	\$0	\$0

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, 2018 (c)	Balances at June 30, 2018	
				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	48,849,568	12,212,394	0
2016	81,619,456	0	48,971,673	32,647,783	0
2017	0	(45,755,815)	(18,302,326)	0	(27,453,489)
2018	0	(17,467,045)	(3,493,409)	0	(13,973,636)
				\$44,860,177	\$(41,427,125)
				Net Deferred Outflows/(Inflows) of Resources	
				(d) + (e)	
				\$3,433,052	

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						
	2018	2019	2020	2021	2022	2023	Thereafter
Changes of Assumptions Differences between Expected and Actual Experience	\$11,547,194	\$11,547,194	\$15,325,113	\$16,944,222	\$2,806,062	\$(975,943)	\$0
Net Differences between Projected and Actual Earnings on Pension Plan Investments	556,527	556,527	634,790	(1,546,693)	(107,892)	223,817	0
	(3,745,940)	15,891,713	3,679,320	(12,644,572)	(3,493,409)	0	0
Grand Total	\$8,357,781	\$27,995,434	\$19,639,223	\$2,752,957	\$(795,239)	\$(752,126)	\$0

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

Interest on Total Pension Liability	Amount for Period (a)	Portion of Period (b)	Interest Rate (c)	Interest on the Total Pension Liability (a) X (b) X (c)
Beginning Total Pension Liability	\$1,824,826,526	100%	7.15%	\$130,475,097
Changes of Benefit Terms	0	100%	7.15%	0
Changes of Assumptions	(17,241,688)	100%	7.15%	(1,232,781)
Difference between Expected and Actual Experience	3,954,107	100%	7.15%	282,719
Service Cost	38,385,859	50%	7.15%	1,372,294
Benefit Payments, including Refunds of Employee Contributions	(82,998,648)	50%	7.15%	(2,967,202)
Total Interest on Total Pension Liability				\$127,930,127

Projected Earnings on Pension Plan Investments	Amount for Period (a)	Portion of Period (b)	Projected Rate of Return (c)	Projected Earnings (a) X (b) X (c)
Beginning Plan Fiduciary Net Position excluding Receivables ¹	\$1,232,205,212	100%	7.15%	\$88,102,673
Net Plan to Plan Resource Movement	(3,555)	50%	7.15%	(127)
Employer Contributions	41,588,489	50%	7.15%	1,486,788
Employee Contributions	21,563,568	50%	7.15%	770,898
Benefit Payments, including Refunds of Employee Contributions	(82,998,648)	50%	7.15%	(2,967,202)
Administrative Expense	(1,921,893)	50%	7.15%	(68,708)
Other Miscellaneous Income/(Expense) ²	(3,649,707)	50%	7.15%	(130,477)
Total Projected Earnings				\$87,193,845

¹ Includes any beginning of year adjustment. Contribution receivables for employee service buybacks, totaling \$1,140,703 as of June 30, 2017, were excluded for purposes of calculating projected earnings on pension plan investments.

² 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).



BARTEL
ASSOCIATES, LLC

City of Sacramento

Sacramento City Employees' Retirement System

June 30, 2018

GASBS 67 & 68 Reporting

November 21, 2018



GASBS 67 & 68 REPORTING

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

This report presents reporting and disclosure information for the Sacramento City Employees' Retirement System (SCERS) for the fiscal year ending June 30, 2018 to assist the City in preparing financial statement information in accordance with Governmental Accounting Standards Board Statements No. 67 and 68 (GASBS 67 and 68).

The report provides information intended for reporting under GASBS 67 and 68, but may not be appropriate for other purposes. Information provided in this report may be useful to the City for the System's financial management. Future results 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.

This report is based on our June 30, 2018 actuarial valuation of the System and our report dated October 2018 which contains complete details of that valuation and is to be considered a part of this report.

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 67 and 68. As members of the American Academy of Actuaries meeting the Academy Qualification Standards, we certify the actuarial results and opinions herein.

Respectfully submitted,

A handwritten signature in blue ink that reads "Mary Elizabeth Redding".

Mary Elizabeth Redding, FSA, MAAA, EA
Vice President

A handwritten signature in blue ink that reads "Deanna Van Valer".

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

A handwritten signature in blue ink that reads "Katherine Moore".

Katherine Moore, ASA, MAAA
Associate Actuary

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SECTION 1

GASBS 67 & 68 APPLICABLE DATES

Applicable Dates and Periods

Fiscal Year End	June 30, 2018	
Reporting Standard	GASBS 67	GASBS 68
■ Reporting date ¹	June 30, 2018	June 30, 2018
■ Reporting period	FY 2018	FY 2018
■ Measurement date ²	N/A	June 30, 2018
■ Measurement period	N/A	July 1, 2017 to June 30, 2018
■ Actuarial valuation date ³	June 30, 2018	June 30, 2018

¹ Employer's or plan's fiscal year-end.

² No earlier than employer's prior fiscal year end.

³ Within 30 months of fiscal year end.

SECTION 2
GASBS 67 AND 68 NOTE DISCLOSURES

Exhibit 1: Notes to Financial Statements (\$000's)

Net Pension Liability/(Asset)
(Amounts in 000's)

	Fiscal Year Ending	
	6/30/18	6/30/17
■ Total pension liability (TPL)	\$324,669	\$336,878
■ Fiduciary net position (FNP)	<u>286,609</u>	<u>288,509</u>
■ Net pension liability (NPL)	38,060	48,369
■ Funded status (FNP/TPL)	88.3%	85.6%

Significant Assumptions and Other Inputs Used to Measure Total Pension Liability at 6/30/18:

■ Discount Rate	■ 6.50%, net of investment expenses
■ Inflation Rate	■ 2.75%
■ Salary Scale	■ 3.25%
■ Mortality Assumption for Service retirements & beneficiaries	■ CalPERS 1997-2015 Post-Retirement Mortality Table projected fully generational with Society of Actuaries Scale MP-2017.
■ Mortality Assumption for Disability retirements	■ CalPERS 1997-2015 Mortality Table for non-work Disabled Retirees for Miscellaneous and CalPERS 1997-2015 Mortality Table for work-related Disabled Retirees for Safety. Both tables were projected fully generational with Society of Actuaries Scale MP-2017.

Changes of assumptions and changes in experience affecting the measurement of the Total Pension Liability since the prior measurement date

Mortality improvement was changed from fully generational projection with Society of Actuaries Scale MP-2016 to fully generational projection with Society of Actuaries Scale MP-2017. Mortality tables were updated from the CalPERS 1997-2011 Experience Study to the CalPERS 1997-2015 Experience Study.

Discount rate

The discount rate was set equal to the long-term expected rate of return. The long-term expected rate of return was used since current assets, future City contributions, and future member contributions are projected to be sufficient to cover all future benefit payments and expenses. This “crossover test” was performed in accordance with the requirements specified in GASB Statement 67, including a projection that the Plan’s funding policy will remain unchanged⁴. No administrative expenses were assumed to be paid from Trust assets since the City Charter requires the City to pay all administrative expenses.

The 6.50% long-term expected rate of return was derived based on the inflation assumption of 2.75% and a long-term asset allocation of 70% equities and 30% fixed income. The geometric

⁴ The current policy includes a change in the amortization period from 13 years to 5 years when the average future life expectancy of plan participants is below 5 years.

SECTION 2
GASBS 67 AND 68 NOTE DISCLOSURES

real rates of return were assumed to be 4.36% for US large cap equities, 4.93% for international equities and 1.47% for fixed income.

Date of actuarial valuation

The June 30, 2018 Total Pension Liability is based on an actuarial valuation as of June 30, 2018.

Sensitivity of the net pension liability to a 1% change in the discount rate

	1% Decrease 5.50%	Discount Rate 6.50%	1% Increase 7.50%
Net Pension Liability (NPL)	\$65,476	\$38,060	\$14,329

SECTION 3
GASBS 67 AND 68 REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in Net Pension Liability & Related Ratios⁵
(Amounts in \$000's)

Fiscal Year	2017/18
Total Pension Liability	
Service cost	\$ 92
Interest	20,877
Changes of benefit terms	0
Differences between expected and actual experience	(2,457)
Changes of assumptions	862
Benefit payments	<u>(31,583)</u>
Net change in Total Pension Liability	<u>(12,209)</u>
Total Pension Liability at beginning of year	336,878
Total Pension Liability at end of year	324,669
Fiduciary Net Position	
Contributions - employer	8,645
Contributions - member	55
Net investment income	20,983
Benefit payments	(31,583)
Administrative expenses	0
Other income	<u>0</u>
Net change in Fiduciary Net Position	<u>(1,900)</u>
Fiduciary Net Position at beginning of year	288,509
Fiduciary Net Position at end of year	286,609
Net Pension Liability (Asset) at end of year	38,060
Fiduciary Net Position as percentage of Total Pension Liability	88.3%
Covered-employee payroll	921
Net Pension Liability as percentage of Covered-employee Payroll	4132.5%

Notes to Schedule of Changes in Net Pension Liability & Related Ratios

The Total Pension Liability as of June 30, 2018 is based on an actuarial valuation as of June 30, 2018.

Changes of Assumptions. In 2017/18, mortality improvement was changed to use Society of Actuaries Scale MP-2017, and mortality rates were updated to the CalPERS 1997-2015 Experience Study.

Differences between actual and expected experience. The largest component for 2017/18 was there were more deaths than expected.

⁵ GASBS 67 and 68 require this information be reported in the Required Supplementary Information for 10 years or as many years are available upon implementation. Only the current year is shown in this report.

SECTION 3

GASBS 67 AND 68 REQUIRED SUPPLEMENTARY INFORMATION

Employer Actuarially Determined Contribution⁶ (Amounts in \$000's)

Fiscal Year	(1) Actuarially Determined Contribution (ADC)	(2) Employer Contributions in relation to the Actuarially Determined Contribution	(3) Contribution Deficiency (Excess) (1)-(2)	(4) Covered-Employee Payroll	(5) Employer Contribution / Covered-Employee Payroll (2)/(4)
2017/18	\$ 8,267	\$ 8,645	\$ (378)	\$921	938.7%

Significant Methods and Assumptions Used in Calculation of ADC for 2017/18

Actuarial Assumption	FY 2017/2018
■ Actuarial valuation date	■ June 30, 2016
■ Actuarial cost method	■ Entry Age Normal, level percent of payroll
■ Amortization method	■ Level dollar amount
■ Amortization period	■ 14 years open
■ Asset method	<ul style="list-style-type: none"> ■ Actuarial value of assets ■ Gains/losses recognized over 3 years ■ Corridor of 85% - 115% of market value of assets
■ Inflation	■ 3.00%
■ Discount rate	■ 6.50%, net of investment expenses
■ Salary scale	■ 3.5%
■ Mortality rate table	<ul style="list-style-type: none"> ■ CalPERS' 1997-2011 Experience Study ■ Mortality projected fully generational with Scale MP-2014 modified to converge to ultimate rates in 2022.
■ All other	■ Same as used in determining total pension liability for 2017/18

⁶ GASBS 67 and 68 require this information be reported in the Required Supplementary Information for 10 years or as many years are available upon implementation. Only the current year is shown in this report.

SECTION 4
GASBS 68 ADDITIONAL NOTE DISCLOSURES

Changes in Net Pension Liability/(Asset)

(Amounts in 000's)

	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability/ (Asset) (a) – (b)
■ Balances at FYE 6/30/2017	\$336,878	\$288,509	\$48,369
■ Changes for the year:			
• Service cost	92		92
• Interest	20,877		20,877
• Change of assumptions	862		862
• Change of benefit terms	0		0
• Differences between expected and actual experience	(2,457)		(2,457)
• Contributions—employer		8,645	(8,645)
• Contributions—member		55	(55)
• Net investment income		20,983	(20,983)
• Benefit payments, including refunds of member contributions	(31,583)	(31,583)	0
• Administrative expense ⁷	<u>0</u>	<u>0</u>	<u>0</u>
■ Net changes	(12,209)	(1,900)	(10,309)
■ Balances at FYE 6/30/2018	324,669	286,609	38,060

Pension Expense for Fiscal Year

(Amounts in 000's)

	2017/18
■ Pension Expense	\$ 2,336

⁷ No administrative expenses are paid from the trust. As required by City Charter, the City pays all administrative expenses of the plan.

SECTION 4
GASBS 68 ADDITIONAL NOTE DISCLOSURES

Balance of Deferred Outflows of Resources and Inflows of Resources
as of June 30, 2018
(Amounts in 000's)

	Deferred Outflows of Resources	Deferred Inflows of Resources
■ Differences between expected and actual experience	\$ 0	\$ 0
■ Changes of assumptions and other inputs	0	0
■ Net difference between actual and projected earnings on investments	0	(2,163)
■ Employer contributions made subsequent to the Measurement Date	N/A	N/A
■ Total	0	(2,163)

Recognition of Deferred Outflows of Resources and Inflows of Resources in Future Pension Expense
(Amounts in 000's)

Measurement Period Ended June 30:	Net Deferred Outflows/(Inflows) of Resources
2019	\$1,027
2020	(198)
2021	(2,399)
2022	(593)
2023	0
Thereafter	0

SECTION 5

GASBS 68 SUPPORTING CALCULATIONS

Recognition of Deferred Outflows and Inflows of Resources

Differences between Actual and Expected Experience Changes in Assumptions and Other Inputs

The average expected remaining service lifetime (AERSL) for the plan is calculated as 18.0 years of total expected future service divided by 1,029 plan participants, resulting in 0.017 years. Since the AERSL is less than 1.0, a recognition period of 1.0 year is used. Therefore all deferred outflows and inflows of resources for differences between actual and expected experience, and for changes in assumptions and other inputs, are fully recognized immediately. No recognition schedules are maintained for these amounts.

SECTION 5
GASBS 68 SUPPORTING CALCULATIONS

Recognition of Deferred Outflows and Inflows of Resources (cont.)
(Amounts in 000's)

Projected Versus Actual Earnings on Investments

Measurement Period	2014/15	2015/16	2016/17	2017/18	Total
■ Initial amount*	\$6,135	\$11,007	\$(9,028)	\$(2,973)	
■ Initial recognition period	5	5	5	5	
■ Amount recognized in pension expense for current and prior fiscal years:					
• 2014/15	1,227	0	0	0	1,227
• 2015/16	1,227	2,201	0	0	3,428
• 2016/17	1,227	2,201	(1,806)	0	1,622
• 2017/18	1,227	2,201	(1,806)	(595)	1,027
■ Amount recognized in pension expense for future fiscal years:					
• 2018/19	1,227	2,201	(1,806)	(595)	1,027
• 2019/20	0	2,203	(1,806)	(595)	(198)
• 2020/21	0	0	(1,804)	(595)	(2,399)
• 2021/22	0	0	0	(593)	(593)
• 2022/23+	0	0	0	0	0
■ Deferred Outflows/(Inflows) as of FYE 6/30/18	1,227	4,404	(5,416)	(2,378)	
■ Net Deferred Outflows/(Inflows) as of FYE 6/30/18					(2,163)

* For 2017/18 Projected earnings = \$18,010, actual earnings = \$20,983. Difference = (\$2,973)

SECTION 5
GASBS 68 SUPPORTING CALCULATIONS

Components of GASBS 68 Pension Expense for Fiscal Year
(Amounts in 000's)

	FY 2017/18
■ Service cost	\$ 92
■ Interest on the total pension liability including service cost	20,877
■ Projected earnings on plan investments	(18,010)
■ Member contributions	(55)
■ Administrative expense	0
■ Recognition of deferred outflows and inflows of resources:	
• Difference between expected and actual experience	(2,457)
• Changes in assumptions and other inputs	862
• Difference between actual and projected earnings on investments	<u>1,027</u>
■ Total Pension Expense	2,336

Calculation of Interest on the Total Pension Liability
(Amounts in 000's)

	Dollar Amount	Expected Return	Portion of Year	Interest
■ Beginning Total Pension Liability	\$336,878	6.5%	1.0	\$21,897
■ Service Cost	92	6.5%	1.0	6
■ Benefit Payments	(31,583)	6.5%	0.5	(1,026)
■ Difference between expected and actual experience	(2,457)	6.5%	0.0	0
■ Changes of assumptions	862	6.5%	0.0	<u>0</u>
■ Interest on Total Pension Liability				20,877

SECTION 5
GASBS 68 SUPPORTING CALCULATIONS

Calculation of Projected Earnings on Pension Plan Investments
(Amounts in 000's)

	Dollar Amount	Expected Return	Portion of Year	Projected Earnings
■ Beginning Fiduciary Net Position	\$288,509	6.5%	1.0	\$18,753
■ Employer Contributions	8,645	6.5%	0.5	281
■ Member Contributions	55	6.5%	0.5	2
■ Benefit Payments	(31,583)	6.5%	0.5	(1,026)
■ Administrative Expenses	0	6.5%	0.5	<u>0</u>
■ Projected Earnings on Investments				18,010

GASBS 68 Balance Equation
(Amounts in 000's)

	6/30/17	6/30/18	Change
■ Total Pension Liability	\$336,878	\$324,669	\$(12,209)
■ Fiduciary Net Position	<u>288,509</u>	<u>286,609</u>	<u>(1,900)</u>
■ Net Pension Liability/(Asset)	48,369	38,060	(10,309)
■ Deferred inflows of resources	0	2,163	2,163
■ Deferred outflows of resources	(1,837)	-	1,837
■ Employer contributions	<u>N/A</u>	<u>8,645</u>	<u>8,645</u>
■ Net impact on balance sheet	46,532	48,868	2,336
Check:			
■ Pension expense for year			\$2,336

SECTION 5
GASBS 68 SUPPORTING CALCULATIONS

Discount Rate “Crossover” Test
Projection of Contributions – amounts in \$000’s

Year	Payroll	Employer Contributions for Current Employees	Employee Contributions for Current Employees	Contributions from Payroll of Future Employees	Total Contributions
1	\$745	\$5,268	\$39	\$0	\$5,307
2	503	4,410	26	0	4,437
3	338	4,025	18	0	4,042
4	208	3,705	11	0	3,715
5	142	3,435	7	0	3,442
6	67	3,091	4	0	3,095
7	36	2,992	2	0	2,994
8	19	2,671	1	0	2,672
9	6	2,523	0	0	2,523
10	2	2,383	0	0	2,383
11	2	2,250	0	0	2,250
12	0	2,124	0	0	2,124
13	0	2,005	0	0	2,005
14	0	1,892	0	0	1,892
15	0	1,785	0	0	1,785
16	0	1,685	0	0	1,685
17	0	1,589	0	0	1,589
18	0	1,499	0	0	1,499
19	0	1,414	0	0	1,414
20	0	2,759	0	0	2,759
21	0	2,259	0	0	2,259
22	0	1,847	0	0	1,847
23	0	1,508	0	0	1,508
24	0	1,230	0	0	1,230
25	0	1,001	0	0	1,001
*	*	*	*	*	*
51	0	2	0	0	2
52	0	2	0	0	2
53	0	1	0	0	1
54	0	1	0	0	1
55	0	1	0	0	1
56	0	1	0	0	1
57	0	0	0	0	0
*	*	*	*	*	*
71	0	0	0	0	0
72	0	0	0	0	0
73	0	0	0	0	0
74	0	0	0	0	0
75	0	0	0	0	0

Note: Years 26 to 50, and 58 to 70 omitted.

SECTION 5
GASBS 68 SUPPORTING CALCULATIONS

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 Administrative Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
1	\$286,609	\$5,307	\$31,158	\$0	\$17,789	\$278,547
2	278,547	4,437	30,900	0	17,245	269,329
3	269,329	4,042	30,482	0	16,647	259,537
4	259,537	3,715	29,950	0	16,017	249,320
5	249,320	3,442	29,362	0	15,363	238,763
6	238,763	3,095	28,692	0	14,688	227,853
7	227,853	2,994	27,968	0	13,999	216,878
8	216,878	2,672	27,198	0	13,300	205,652
9	205,652	2,523	26,390	0	12,592	194,377
10	194,377	2,383	25,550	0	11,882	183,092
11	183,092	2,250	24,682	0	11,172	171,832
12	171,832	2,124	23,786	0	10,465	160,635
13	160,635	2,005	22,864	0	9,763	149,539
14	149,539	1,892	21,917	0	9,069	138,583
15	138,583	1,785	20,943	0	8,385	127,810
16	127,810	1,685	19,943	0	7,714	117,265
17	117,265	1,589	18,917	0	7,059	106,996
18	106,996	1,499	17,868	0	6,423	97,050
19	97,050	1,414	16,797	0	5,808	87,475
20	87,475	2,759	15,709	0	5,265	79,790
21	79,790	2,259	14,610	0	4,785	72,224
22	72,224	1,847	13,506	0	4,316	64,881
23	64,881	1,508	12,406	0	3,863	57,846
24	57,846	1,230	11,318	0	3,432	51,189
25	51,189	1,001	10,251	0	3,027	44,966
*	*	*	*	*	*	*
51	1,502	2	238	0	90	1,356
52	1,356	2	222	0	81	1,217
53	1,217	1	207	0	72	1,083
54	1,083	1	191	0	64	956
55	956	1	176	0	56	836
56	836	1	162	0	49	724
57	724	0	147	0	42	619
*	*	*	*	*	*	*
71	13	0	5	0	1	9
72	9	0	2	0	1	8
73	8	0	1	0	0	7
74	7	0	0	0	0	7
75	7	0	0	0	0	7

Note: Years 26 to 50, and 58 to 70 omitted.

SECTION 5
GASBS 68 SUPPORTING CALCULATIONS

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" Benefit Payments	PV of "Unfunded" Benefit Payments	PV of Benefit Payments using 6.50% Discount Rate
1	\$286,609	\$31,158	\$31,158	\$0	\$29,256	\$0	\$29,256
2	278,547	30,900	30,900	0	27,243	0	27,243
3	269,329	30,482	30,482	0	25,234	0	25,234
4	259,537	29,950	29,950	0	23,281	0	23,281
5	249,320	29,362	29,362	0	21,431	0	21,431
6	238,763	28,692	28,692	0	19,664	0	19,664
7	227,853	27,968	27,968	0	17,998	0	17,998
8	216,878	27,198	27,198	0	16,434	0	16,434
9	205,652	26,390	26,390	0	14,973	0	14,973
10	194,377	25,550	25,550	0	13,611	0	13,611
11	183,092	24,682	24,682	0	12,346	0	12,346
12	171,832	23,786	23,786	0	11,172	0	11,172
13	160,635	22,864	22,864	0	10,083	0	10,083
14	149,539	21,917	21,917	0	9,076	0	9,076
15	138,583	20,943	20,943	0	8,143	0	8,143
16	127,810	19,943	19,943	0	7,281	0	7,281
17	117,265	18,917	18,917	0	6,485	0	6,485
18	106,996	17,868	17,868	0	5,751	0	5,751
19	97,050	16,797	16,797	0	5,077	0	5,077
20	87,475	15,709	15,709	0	4,458	0	4,458
21	79,790	14,610	14,610	0	3,893	0	3,893
22	72,224	13,506	13,506	0	3,379	0	3,379
23	64,881	12,406	12,406	0	2,915	0	2,915
24	57,846	11,318	11,318	0	2,497	0	2,497
25	51,189	10,251	10,251	0	2,123	0	2,123
*	*	*	*	*	*	*	*
51	1,502	238	238	0	10	0	10
52	1,356	222	222	0	8	0	8
53	1,217	207	207	0	7	0	7
54	1,083	191	191	0	6	0	6
55	956	176	176	0	6	0	6
56	836	162	162	0	5	0	5
57	724	147	147	0	4	0	4
*	*	*	*	*	*	*	*
71	13	5	5	0	0	0	0
72	9	2	2	0	0	0	0
73	8	1	1	0	0	0	0
74	7	0	0	0	0	0	0
75	7	0	0	0	0	0	0
Total					313,475	0	313,475

Note: Years 26 to 50, and 58 to 70 omitted.





RETIREE HEALTHCARE PLAN

June 30, 2017 Actuarial Valuation
Final Results

Bartel Associates, LLC

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

March 9, 2018

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BENEFIT SUMMARY

	Fire	Police & Miscellaneous
<ul style="list-style-type: none"> ■ Eligibility 	<ul style="list-style-type: none"> ■ Retire directly from the City: <ul style="list-style-type: none"> ● Age 50 & 10 years City service, or ● 30 years City service, or ● Industrial disability, or ● Death in line of duty 	
<ul style="list-style-type: none"> ■ Benefit for Hires before Plan Change Date <p>Medical, Dental & Vision</p>	<ul style="list-style-type: none"> ■ 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 ■ 2017 = \$794.69/mo 2018 = \$834.73/mo ■ <u>Service</u> <u>%</u> <ul style="list-style-type: none"> 10 50% 15 75% 20+ 100% ID&D 100% 	<ul style="list-style-type: none"> ■ Retiree only - \$300/mo ■ Retiree + Dependents - \$365/mo ■ <u>Service</u> <u>%</u> <ul style="list-style-type: none"> 10 50% 15 75% 20+ 100% ID&D 100% ■ Retirees after 2014 in WCE, Auto Marine & Specialty Painters, and Unrepresented – not allowed to participate in City health plans when Medicare-eligible

BENEFIT SUMMARY

	Fire	Police & Miscellaneous
<ul style="list-style-type: none"> ■ Benefit for Hires after Plan Change Date¹ <p>Medical, Dental & Vision</p>	<ul style="list-style-type: none"> ■ Pre-Medicare - \$774/mo ■ Post-Medicare - \$387/mo ■ <u>Service</u> <u>%</u> <ul style="list-style-type: none"> 10 50% 15 75% 20+ 100% ID&D 100% 	<ul style="list-style-type: none"> ■ No City cash contribution but allowed to participate in City health plans
<ul style="list-style-type: none"> ■ Pre 1/1/91 Deferred Retirement 	<ul style="list-style-type: none"> ■ None 	<ul style="list-style-type: none"> ■ Eligibility: Age 50 & 10 years ■ Benefit: Pre-plan change benefit ■ <u>Service</u> <u>%</u> <ul style="list-style-type: none"> 10 50% 20+ 100%
<ul style="list-style-type: none"> ■ Surviving Spouse Benefit 	<ul style="list-style-type: none"> ■ Same benefit continues to surviving spouse 	

¹ Hired after 1/14/15 for Fire, after 9/3/13 for Police, after 6/30/12 for Exempt Employees and Stationary Engineers, after 7/20/12 for Unrepresented, after 11/15/14 for Plumbers and Pipe Fitters, and after 6/30/13 for remaining bargaining units.

BENEFIT SUMMARY

	Fire	Police & Miscellaneous																																	
■ Other OPEB	■ No City contribution for life insurance or Medicare Part B premiums																																		
■ Fire Department Unit Trust	<ul style="list-style-type: none"> ■ Effective 6/27/15 ■ Sub-account in City's CERBT account ■ Member Contribution: \$45/mo ■ City Contribution: \$45/mo 	■ n/a																																	
■ Pay-As-You-Go Costs (\$000's)	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Fiscal Year</th> <th style="text-align: right; border-bottom: 1px solid black;">Cash</th> <th style="text-align: right; border-bottom: 1px solid black;">Implied Subsidy</th> <th style="text-align: right; border-bottom: 1px solid black;">Total</th> </tr> </thead> <tbody> <tr> <td>■ FY 2016/17</td> <td style="text-align: right;">\$10,011</td> <td style="text-align: right;">\$2,554</td> <td style="text-align: right;">\$12,565</td> </tr> <tr> <td>■ FY 2015/16</td> <td style="text-align: right;">\$9,847</td> <td style="text-align: right;">\$2,516</td> <td style="text-align: right;">\$12,363</td> </tr> <tr> <td>■ FY 2014/15</td> <td style="text-align: right;">\$9,904</td> <td style="text-align: right;">\$3,620</td> <td style="text-align: right;">\$13,524</td> </tr> <tr> <td>■ FY 2013/14</td> <td style="text-align: right;">\$9,970</td> <td style="text-align: right;">\$3,503</td> <td style="text-align: right;">\$13,473</td> </tr> <tr> <td>■ FY 2012/13</td> <td style="text-align: right;">\$9,758</td> <td style="text-align: right;">\$3,085</td> <td style="text-align: right;">\$12,843</td> </tr> <tr> <td>■ FY 2011/12</td> <td style="text-align: right;">\$9,462</td> <td style="text-align: right;">\$2,729</td> <td style="text-align: right;">\$12,191</td> </tr> <tr> <td>■ FY 2010/11</td> <td style="text-align: right;">\$9,230</td> <td style="text-align: right;">\$2,661</td> <td style="text-align: right;">\$11,891</td> </tr> </tbody> </table>			Fiscal Year	Cash	Implied Subsidy	Total	■ 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
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BENEFIT SUMMARY

	Fire	Police & Miscellaneous																					
■ Implied Subsidy	<ul style="list-style-type: none"> ■ Non-Medicare retirees pay blended rates instead of actual cost ■ Active employee premiums subsidize non-Medicare retiree cost <div style="text-align: center; margin: 10px 0;"> <p>2017 Kaiser HMO \$25 Co-Pay - Male</p> <table border="1" style="margin: 10px auto; border-collapse: collapse; font-size: small;"> <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>\$716</td> <td>\$716</td> <td>\$716</td> <td>\$716</td> <td>\$716</td> <td>\$716</td> </tr> <tr> <td>● Estimated Cost</td> <td>\$406</td> <td>\$517</td> <td>\$670</td> <td>\$868</td> <td>\$1,110</td> <td>\$1,376</td> </tr> </tbody> </table> </div> <ul style="list-style-type: none"> ■ GASB OPEB includes active “implied subsidy” with retiree cost ■ Medical: <ul style="list-style-type: none"> ● Value to age 65 for Medicare eligible retirees ● Value for life for non-Medicare eligible retirees ■ Dental & vision: no implied subsidy valued 			Age 40	Age 45	Age 50	Age 55	Age 60	Age 65	▲ Active/Early Retiree Premium	\$716	\$716	\$716	\$716	\$716	\$716	● Estimated Cost	\$406	\$517	\$670	\$868	\$1,110	\$1,376
	Age 40	Age 45	Age 50	Age 55	Age 60	Age 65																	
▲ Active/Early Retiree Premium	\$716	\$716	\$716	\$716	\$716	\$716																	
● Estimated Cost	\$406	\$517	\$670	\$868	\$1,110	\$1,376																	

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



March 9, 2018



PARTICIPANT STATISTICS

Participant Statistics – June 30, 2015

	Misc	Police	Fire	Total
■ Actives				
• Count	2,176	788	549	3,513
• Average Age	47.2	38.2	41.6	44.3
• Average City Service	13.1	12.3	13.1	12.9
• Average Salary	\$ 70,078	\$ 84,709	\$ 93,689	\$ 77,050
• Total Salary (\$000's)	152,491	66,751	51,436	270,677
■ Pre 1/1/91 Inactive Vested				
• Count	18	1	-	19
• Average Age	66.2	74.1	-	66.6
■ Retirees				
• Count - Medical	1,109	309	397	1,815
• Count - Dental	1,501	492	471	2,464
• Count - Vision	675	229	241	1,145
• Count - Total	2,007	593	524	3,124
• Average Age	70.6	66.7	71.0	69.9
• Average Retirement Age	58.3	50.9	54.3	56.2



March 9, 2018



ACTUARIAL ASSUMPTIONS HIGHLIGHTS

	June 30, 2015 Valuation	June 30, 2017 Valuation
■ Valuation Date	<ul style="list-style-type: none"> ■ June 30, 2015 ■ Fiscal Years 2016/17 & 2017/18 	<ul style="list-style-type: none"> ■ June 30, 2017 ■ Fiscal Years 2018/19 & 2019/20
■ Discount Rate	<ul style="list-style-type: none"> ■ 4.50% – Pre-fund with one time resources ■ CERBT asset allocation strategy #1 	<ul style="list-style-type: none"> ■ 3.95% ■ Based on closed group crossover analysis following GASBS 75 methodology: <ul style="list-style-type: none"> • Projected City contributions of \$1.5 million per year • 6.75% rate for full ADC pre-funding and S&P 20-year bond index rate (3.13% as of 6/30/17) for pay-go pre-funding ■ CERBT asset allocation strategy #1 (57% global equity, 27% fixed income, 5% TIPS, 8% REITs, 3% commodities)

ACTUARIAL ASSUMPTIONS HIGHLIGHTS

	June 30, 2015 Valuation	June 30, 2017 Valuation
■ Inflation	■ 3.00%	■ 2.75%
■ Retirement, Mortality, Termination, Disability	<ul style="list-style-type: none"> ■ CalPERS – 1997-2011 Experience Study ■ SCERS – 6/30/13 Valuation Assumptions ■ Mortality projected fully generational with Scale MP-14, modified to converge to ultimate improvement rates in year 2022 	<ul style="list-style-type: none"> ■ CalPERS – 1997-2011 Experience Study ■ SCERS – 6/30/17 Valuation Assumptions (limited applicability) ■ Mortality projected fully generational with Scale MP-16

ACTUARIAL ASSUMPTIONS HIGHLIGHTS

	June 30, 2015 Valuation	June 30, 2017 Valuation																																																						
<p>■ Participation at Retirement</p>	<p>■ Based on current retiree participation, varies by % of cash benefit earned at retirement:</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">% of Benefit Earned</th> <th style="text-align: center;">Participation Assumption</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">0%</td> <td style="text-align: center;">10%</td> </tr> <tr> <td style="text-align: center;">50%</td> <td style="text-align: center;">40%</td> </tr> <tr> <td style="text-align: center;">75%</td> <td style="text-align: center;">55%</td> </tr> <tr> <td style="text-align: center;">100%</td> <td style="text-align: center;">75%</td> </tr> </tbody> </table>	% of Benefit Earned	Participation Assumption	0%	10%	50%	40%	75%	55%	100%	75%	<p>■ Based on retirements during fiscal years 2015 to 2017, varies by % of cash benefit earned at retirement:</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <thead> <tr> <th rowspan="2" style="text-align: center;">Plan</th> <th colspan="4" style="text-align: center;">% of Benefit Earned</th> </tr> <tr> <th style="text-align: center;">0%</th> <th style="text-align: center;">50%</th> <th style="text-align: center;">75%</th> <th style="text-align: center;">100%</th> </tr> </thead> <tbody> <tr> <td>M&D&V</td> <td style="text-align: center;">10%</td> <td style="text-align: center;">23%</td> <td style="text-align: center;">30%</td> <td style="text-align: center;">35%</td> </tr> <tr> <td>D & V</td> <td style="text-align: center;">10%</td> <td style="text-align: center;">40%</td> <td style="text-align: center;">35%</td> <td style="text-align: center;">30%</td> </tr> <tr> <td>M & D</td> <td style="text-align: center;">0%</td> <td style="text-align: center;">10%</td> <td style="text-align: center;">14%</td> <td style="text-align: center;">20%</td> </tr> <tr> <td>M & V</td> <td style="text-align: center;">0%</td> <td style="text-align: center;">3%</td> <td style="text-align: center;">0%</td> <td style="text-align: center;">4%</td> </tr> <tr> <td>M Only</td> <td style="text-align: center;">10%</td> <td style="text-align: center;">12%</td> <td style="text-align: center;">9.5%</td> <td style="text-align: center;">7%</td> </tr> <tr> <td>D Only</td> <td style="text-align: center;">10%</td> <td style="text-align: center;">3%</td> <td style="text-align: center;">1.5%</td> <td style="text-align: center;">0.5%</td> </tr> <tr> <td>V Only</td> <td style="text-align: center;">0%</td> <td style="text-align: center;">0%</td> <td style="text-align: center;">1%</td> <td style="text-align: center;">0.5%</td> </tr> </tbody> </table> <p style="text-align: center;">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%
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ACTUARIAL ASSUMPTIONS HIGHLIGHTS

	June 30, 2015 Valuation			June 30, 2017 Valuation		
<p>■ Medical Trend</p>	<u>Year</u>	<u>Increase from Prior Year</u>		<u>Year</u>	<u>Increase from Prior Year</u>	
		<u>Non-Medicare</u>	<u>Medicare</u>		<u>Non-Medicare</u>	<u>Medicare</u>
	2015	Actual 2015 Premiums		2017	Actual 2017 Premiums	
	2016	Actual 2016 Premiums		2018	Actual 2018 Premiums	
	2017	7.0%	7.2%	2019	7.50%	6.50%
	2018	6.5%	6.7%	2020	7.50%	6.50%
	2019	6.0%	6.1%	2021	7.25%	6.30%
	2020	5.5%	5.6%	2022	7.00%	6.10%
	2021+	5.0%	5.0%	2023	6.75%	5.90%
				2024	6.50%	5.70%
				2025	6.25%	5.50%
				2026	6.00%	5.30%
				2027	5.80%	5.15%
				2028	5.60%	5.00%
				2029	5.40%	4.85%
				2030	5.20%	4.70%
				2031-35	5.05%	4.60%
				2036-45	4.90%	4.50%
				2046-55	4.75%	4.45%
				2056-65	4.60%	4.40%
				2066-75	4.30%	4.20%
				2076+	4.00%	4.00%

ACTUARIAL ASSUMPTIONS HIGHLIGHTS

	June 30, 2015 Valuation	June 30, 2017 Valuation
■ Dental & Vision Trend	■ 3.00%	■ 2.75%
■ Cap Increase Rates	<ul style="list-style-type: none"> ■ Fire hired <1/14/15: <ul style="list-style-type: none"> • Lowest cost \$25 co-pay medical premium – medical trend • Lowest cost PPO dental premium – dental trend ■ All Misc, All Police, and Fire hired ≥ 1/14/15: 3% starting 2017 	<ul style="list-style-type: none"> ■ Fire hired <1/14/15: <ul style="list-style-type: none"> • Lowest cost \$25 co-pay medical premium – medical trend • Lowest cost PPO dental premium – dental trend ■ All Misc, All Police, and Fire hired ≥ 1/14/15: 0%
■ Affordable Care Act (ACA) Excise Tax	■ n/a	■ 2% liability load on cash subsidy to estimate impact

ACTUARIAL ASSUMPTIONS HIGHLIGHTS

	June 30, 2015 Valuation	June 30, 2017 Valuation
■ Basis for Assumptions	<ul style="list-style-type: none"> ■ 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. ■ CalPERS January 2014 experience study covering 1997 to 2011 experience was used ■ Mortality improvement based on Society of Actuaries tables ■ Inflation based on the Plan’s very long time horizon ■ Age-based claims are based on factors published by the Society of Actuaries ■ Medical trend based on Society of Actuaries Getzen Model 	

ACTUARIAL METHODS

Method	June 30, 2015 Valuation	June 30, 2017 Valuation
■ Cost Method	■ Entry Age Normal	
■ Funding Policy	■ 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"> ● Investment gains/losses spread over 5-year rolling period ● Not less than 80% nor more than 120% of market value ■ Allocation to Misc/Police/Fire: <ul style="list-style-type: none"> ● Fire Department Unit Trust assets allocated to Fire group ● Remaining assets allocated to Misc/Police/Fire in proportion to actuarial accrued liability 	
■ Amortization Method	■ Level percent of payroll	

ACTUARIAL METHODS

Method	June 30, 2015 Valuation	June 30, 2017 Valuation
■ Amortization Period	■ 20 year closed amortization of 6/30/14 UAAL ■ 15 years (closed) – subsequent gains/losses, assumption changes, and method changes	■ 20 year closed amortization of 6/30/18 UAAL
■ Implied Subsidy	■ Employer cost for allowing non Medicare-eligible retirees to participate at active rates ■ Medical - implied subsidy valued until Medicare eligible ■ Dental & vision – no implied subsidy valued	

ASSETS

Market Value of Plan Assets

(Amounts in 000's)

Market Value of Assets	2015/16			2016/17		
	City	Fire Unit Trust	Total	City	Fire Unit Trust	Total
■ MVA (Beg. of Year)	\$5,239	\$ 0	\$5,239	\$14,509	\$ 595	\$15,104
• Contribution	8,453	573 ²	9,026	8,743	570 ³	9,313
• Benefit Payment	(0)	(0)	(0)	(0)	(0)	(0)
• Admin. Expenses	(5)	(0)	(5)	(9)	(1)	(10)
• Inv. Expenses	(3)	(0)	(3)	(7)	(0)	(7)
• Investment Return	<u>825</u>	<u>22</u>	<u>847</u>	<u>1,947</u>	<u>94</u>	<u>2,041</u>
■ MVA (End of Year)	14,509	595	15,104	25,183	1,258	26,441
■ Approx. Annual Return			8.7%			10.2%

² Includes \$23,760 year-end accrual contribution.

³ Includes reversal of \$23,760 prior year-end accrual contribution.

ASSETS

Market Value of Plan Assets

(Amounts in 000's)

Market Value of Assets	Projected 2017/18		
	City	Fire Unit Trust	Total
■ MVA (Beg. of Year)	\$25,183	\$1,258	\$26,441
• Contribution	893	607 ⁴	1,500 ⁵
• Benefit Payment	(0)	(0)	(0)
• Admin. Expenses	(10)	(1)	(11)
• Inv. Expenses	-	-	-
• Net Investment Return ⁶	<u>1,730</u>	<u>105</u>	<u>1,835</u>
■ MVA (End of Year)	27,796	1,969	29,765
■ Projected Annual Return			6.75%

⁴ Estimated: \$45 each City/employee monthly contribution times number of Fire employees.

⁵ Assumes \$1.5 million total contribution for 2017/18.

⁶ Expected investment return of 6.75%.

ASSETS

Actuarial Value of Plan Assets

(Amounts in 000's)

Actuarial Value of Assets	2015/16			2016/17		
	City	Fire	Total	City	Fire	Total
■ AVA (Beginning of Year)	\$5,461	\$ 0	\$5,461 ⁷	\$14,595	\$594	\$15,189
• Employer/Employee Contribution	8,453	573	9,026	8,743	570	9,313
• Benefit Payment	-	-	-	-	-	-
• Expected Investment Return ⁸	<u>702</u>	<u>21</u>	<u>723</u>	<u>1,375</u>	<u>64</u>	<u>1,439</u>
■ Expected AVA (End of Year)	14,616	594	15,210	24,713	1,228	25,941
■ MVA (End of Year)	14,509	595	15,104	25,183	1,258	26,441
■ 1/5 of (MVA – Expected AVA)	(21)	(0)	(21)	94	6	100
■ Preliminary AVA⁹	14,595	594	15,189	24,807	1,234	26,041
• Minimum AVA (80% of MVA)	11,607	476	12,083	20,147	1,006	21,153
• Maximum AVA (120% of MVA)	17,411	714	18,125	30,220	1,509	31,729
■ AVA (End of Year)	14,595	594	15,189	24,807	1,234	26,041
■ Approximate Annual Return			7.1%			7.8%

⁷ Revised based on actual 6/30/16 MVA.

⁸ Expected investment return of 7.25%.

⁹ Expected AVA plus 20% of the difference between the MVA and expected AVA.

ASSETS

Actuarial Value of Plan Assets

(Amounts in 000's)

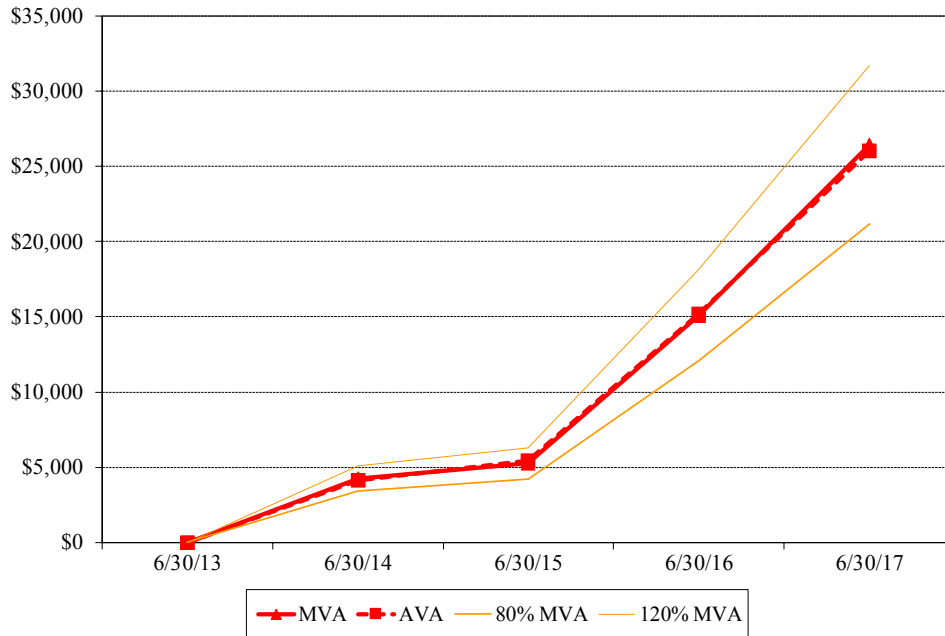
Actuarial Value of Assets	Projected 2017/18		
	City	Fire	Total
■ AVA (Beginning of Year)	\$24,807	\$1,234	\$26,041
• Employer/Employee Contribution	893	607	1,500
• Benefit Payment	-	-	-
• Expected Investment Return ¹⁰	<u>1,705</u>	<u>103</u>	<u>1,808</u>
■ Expected AVA (End of Year)	27,405	1,944	29,349
■ MVA (End of Year)	27,796	1,969	29,765
■ 1/5 of (MVA – Expected AVA)	78	5	83
■ Preliminary AVA¹¹	27,483	1,949	29,432
• Minimum AVA (80% of MVA)	22,237	1,575	23,812
• Maximum AVA (120% of MVA)	33,355	2,363	35,718
■ AVA (End of Year)	27,483	1,949	29,432
■ Approximate Annual Return			7.1%

¹⁰ Expected investment return of 6.75%.

¹¹ Expected AVA plus 20% of the difference between the MVA and expected AVA.

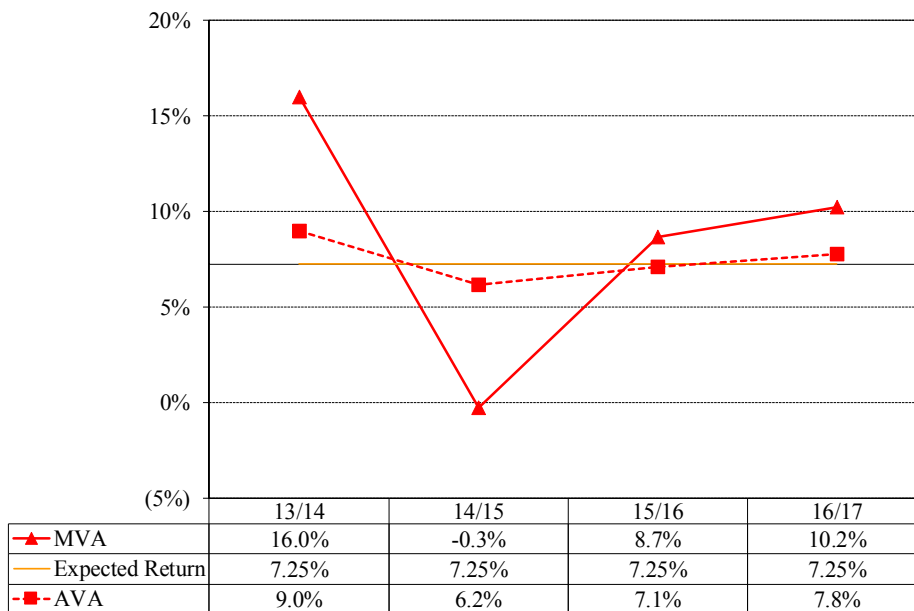
ASSETS

Historical and Projected Value of Plan Assets (Amounts in \$000's)



ASSETS

Annualized Asset Returns



RESULTS

Actuarial Obligations

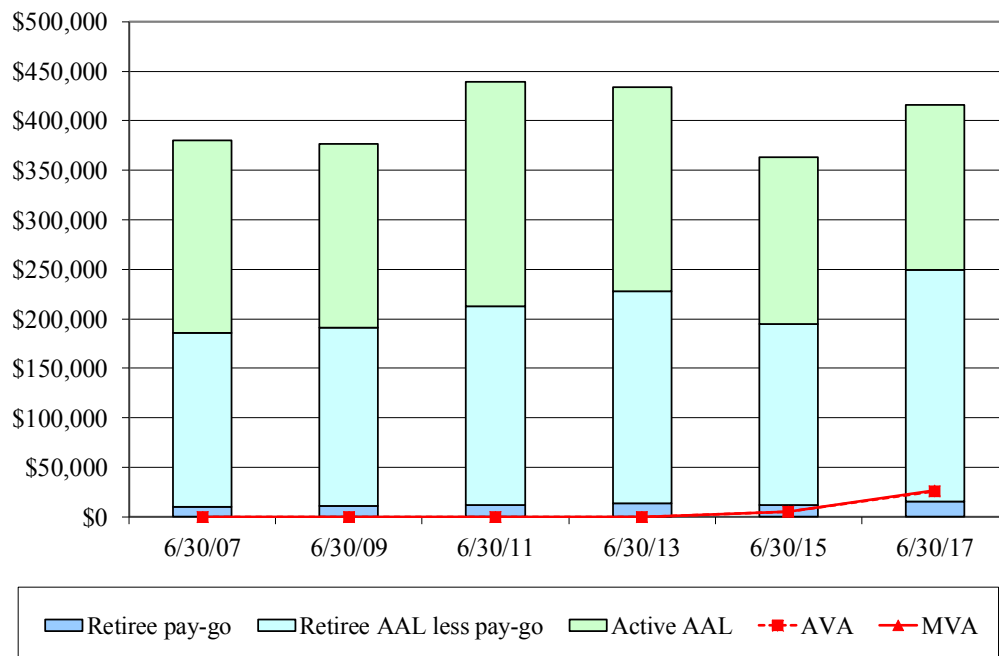
(Amounts in 000's)

Discount Rate	6/30/15 Valuation		6/30/17 Valuation	
	4.50%		3.95%	
	6/30/15	Projected to 6/30/16	6/30/17	Projected to 6/30/18
■ Present Value of Benefits <ul style="list-style-type: none"> • Actives • Retirees • Total 	\$296,447		\$290,592	
	<u>194,312</u>		<u>248,926</u>	
	490,759		539,518	
■ Actuarial Accrued Liability <ul style="list-style-type: none"> • Actives • Retirees • Total 	168,512		167,031	
	<u>194,312</u>		<u>248,926</u>	
	362,824	\$378,534	415,957	\$428,858
■ Actuarial Value of Assets	<u>(5,461)</u>	<u>(15,116)</u>	<u>(26,041)</u>	<u>(29,432)</u>
■ Unfunded AAL	357,363	363,418	389,916	399,426
■ AVA Funded Ratio	1.5%		6.3%	
■ Normal Cost		11,921		11,834
■ Pay-As-You-Go Cost		12,122		15,343

RESULTS

Historical Actuarial Accrued Liability

(Amounts in 000's)



RESULTS

Estimated Actuarial Gain/Loss Analysis

(Amounts in 000's)

	AAL
■ Actual on 6/30/15	\$362,824
■ Expected on 6/30/17	395,097
■ Experience (Gains)/Losses:	
• Premiums/Claims/Caps different than expected	10,066
• Demographic & other	(2,691)
■ Assumption Changes:	
• Updated Medical Trend / Inflation	16,591
• Updated Age-Related Claims Cost Factors	28,873
• Mortality Improvement Scale MP-16	(9,771)
• ACA Excise Tax	5,741
• Participation Assumption	(8,913)
• 0% Flat Dollar Cap Increase Rate	(49,370)
• Discount Rate	30,334
■ Total (Gains)/Losses	20,860
■ Actual on 6/30/17	415,957

RESULTS

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RESULTS

Actuarially Determined Contribution (ADC)

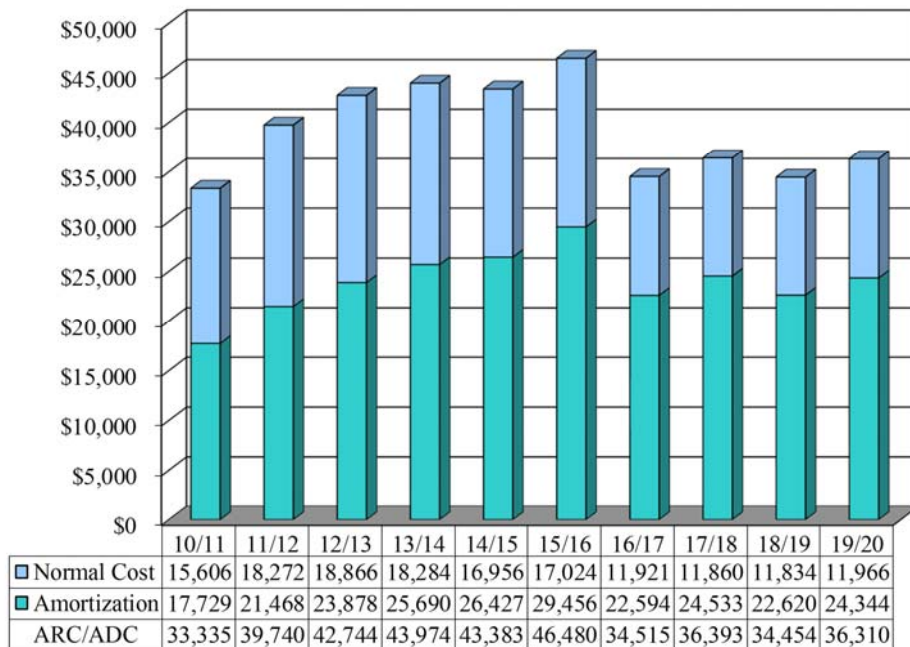
(Amounts in 000's)

	6/30/15 Valuation		6/30/17 Valuation	
	2016/17	2017/18	2018/19	2019/20
■ ADC - \$ <ul style="list-style-type: none"> • Normal Cost • UAAL Amortization • ADC (End of Year) 	\$11,921	\$11,860	\$ 11,834	\$ 11,966
	<u>22,594</u>	<u>24,533</u>	<u>22,620</u>	<u>24,344</u>
	34,515	36,393	34,454	36,310
■ Projected Payroll	279,474	288,557	303,345	312,446
■ ADC - % Total Payroll <ul style="list-style-type: none"> • Normal Cost • UAAL Amortization • ADC 	4.3%	4.1%	3.9%	3.8%
	<u>8.1%</u>	<u>8.5%</u>	<u>7.5%</u>	<u>7.8%</u>
	12.4%	12.6%	11.4%	11.6%

RESULTS

Historical Actuarially Determined Contributions

(Amounts in 000's)



RESULTS

Estimated GASBS 45 Net OPEB Obligation (NOO)

(Amounts in 000's)

	6/30/12 Val	6/30/13 Val		6/30/15 Val
	CAFR 2013/14	CAFR 2014/15	CAFR 2015/16	Est. 2016/17
■ NOO Beginning of Year	\$131,739	\$154,197	\$180,984	\$202,722
■ Annual OPEB Cost				
• ARC	43,974	43,383	46,480	34,515
• Interest on NOO	5,928	6,939	8,144	9,122
• Amortization of NOO	<u>(9,971)</u>	<u>(9,011)</u>	<u>(11,486)</u>	<u>(15,343)</u>
• Annual OPEB Cost	39,931	41,311	43,138	28,294
■ Contributions				
• Cash Benefit Payments	(9,970)	(9,904)	(9,847)	(10,011)
• Implied Subsidy	(3,503)	(3,620)	(2,516)	(2,554)
• Trust Pre-Funding	<u>(4,000)</u>	<u>(1,000)</u>	<u>(9,037)</u>	<u>(9,313)</u>
• Total Contribution	<u>(17,473)</u>	<u>(14,524)</u>	<u>(21,400)</u>	<u>(21,878)</u>
■ NOO End of Year	154,197	180,984	202,722	209,138
■ NOO Amort. Factor	13.2122	17.1121	15.7575	13.2127

RESULTS

10-Year Projection Illustration

(Amounts in 000's)

FYE June 30,	ADC	Benefit Payments			Pre- Fund ¹²	Total Contrib	Payroll	ADC as % of Payroll	Contrib as % of Payroll
		Cash Subsidy	Implied Subsidy	Total					
2019	\$34,454	\$10,860	\$4,483	\$15,343	\$1,500	\$16,843	\$303,345	11.4%	5.6%
2020	36,310	11,252	4,932	16,184	1,500	17,684	312,446	11.6%	5.7%
2021	38,310	11,689	5,525	17,214	1,500	18,714	321,819	11.9%	5.8%
2022	40,484	12,126	5,982	18,108	1,500	19,608	331,474	12.2%	5.9%
2023	42,870	12,599	6,406	19,005	1,500	20,505	341,418	12.6%	6.0%
2024	45,506	13,064	7,079	20,143	1,500	21,643	351,660	12.9%	6.2%
2025	48,416	13,520	7,741	21,261	1,500	22,761	362,210	13.4%	6.3%
2026	51,684	13,972	8,368	22,340	1,500	23,840	373,076	13.9%	6.4%
2027	55,410	14,445	9,053	23,498	1,500	24,998	384,269	14.4%	6.5%
2028	59,715	14,903	9,716	24,619	1,500	26,119	395,797	15.1%	6.6%

¹² Assumes the City contributes \$1.5 million per year.

RESULTS

Actuarial Obligations by Cash/Implied Subsidy

3.95% Discount Rate

June 30, 2017

(Amounts in 000's)

	Cash Subsidy	Implied Subsidy	Total
■ Present Value of Benefits			
• Actives	\$179,928	\$110,664	\$290,592
• Retirees	<u>167,448</u>	<u>81,478</u>	<u>248,926</u>
• Total	347,376	192,142	539,518
■ Actuarial Accrued Liability			
• Actives	104,240	62,791	167,031
• Retirees	<u>167,448</u>	<u>81,478</u>	<u>248,926</u>
• Total	271,688	144,269	415,957
■ Actuarial Value of Assets¹³	<u>(17,009)</u>	<u>(9,032)</u>	<u>(26,041)</u>
■ Unfunded AAL	254,679	135,237	389,916
■ Normal Cost 2018/19	7,488	4,346	11,834
■ Pay-As-You-Go 2018/19	10,860	4,483	15,343

¹³ Assets allocated in proportion to liability.

RESULTS

Actuarially Determined Contribution (ADC) by Cash/Implied Subsidy

2018/19 Fiscal Year, 3.95% Discount Rate

(Amounts in 000's)

	Cash Subsidy	Implied Subsidy	Total
■ ADC - \$			
• Normal Cost	\$ 7,488	\$ 4,346	\$ 11,834
• UAAL Amortization	<u>14,712</u>	<u>7,908</u>	<u>22,620</u>
• Total	22,200	12,254	34,454
■ Projected Payroll	303,345	303,345	303,345
■ ADC - %			
• Normal Cost	2.5%	1.4%	3.9%
• UAAL Amortization	<u>4.9%</u>	<u>2.6%</u>	<u>7.5%</u>
• Total	7.4%	4.0%	11.4%

RESULTS

Actuarial Obligations by Group

3.95% Discount Rate

(Amounts in 000's)

	Misc	Police	Fire	Total
■ Present Value of Benefits				
• Actives	\$ 92,880	\$ 53,147	\$ 144,565	\$ 290,592
• Retirees	<u>93,747</u>	<u>47,275</u>	<u>107,904</u>	<u>248,926</u>
• Total	186,627	100,422	252,469	539,518
■ Actuarial Accrued Liability				
• Actives	63,100	28,163	75,768	167,031
• Retirees	<u>93,747</u>	<u>47,275</u>	<u>107,904</u>	<u>248,926</u>
• Total	156,847	75,438	183,672	415,957
■ Actuarial Value of Assets¹⁴	<u>(9,354)</u>	<u>(4,499)</u>	<u>(12,188)</u>	<u>(26,041)</u>
■ Unfunded AAL	147,493	70,939	171,484	389,916
■ Normal Cost 2018/19	3,454	2,220	6,160	11,834
■ Pay-As-You-Go 2018/19	7,388	2,724	5,231	15,343

¹⁴ Fire Assets allocated to Fire group, remaining assets allocated to Misc/Fire/Police in proportion to liability.



March 9, 2018



RESULTS

Actuarially Determined Contribution (ADC) by Group

2018/19 Fiscal Year, 3.95% Discount Rate

(Amounts in 000's)

	Misc	Police	Fire	Total
■ ADC - \$				
• Normal Cost	\$ 3,454	\$ 2,220	\$ 6,160	\$ 11,834
• UAAL Amortization	<u>8,434</u>	<u>4,129</u>	<u>10,057</u>	<u>22,620</u>
• Total	11,888	6,349	16,217	34,454
■ Projected Payroll	168,627	72,317	62,401	303,345
■ ADC - %				
• Normal Cost	2.0%	3.1%	9.9%	3.9%
• UAAL Amortization	<u>5.0%</u>	<u>5.7%</u>	<u>16.1%</u>	<u>7.5%</u>
• Total	7.0%	8.8%	26.0%	11.4%



March 9, 2018



RESULTS

Actuarially Determined Contribution (ADC) by Group
2019/20 Fiscal Year, 3.95% Discount Rate
 (Amounts in 000's)

	Misc	Police	Fire	Total
■ ADC - \$				
• Normal Cost	\$ 3,487	\$ 2,254	\$ 6,224	\$ 11,966
• UAAL Amortization	<u>9,077</u>	<u>4,444</u>	<u>10,823</u>	<u>24,344</u>
• Total	12,564	6,698	17,047	36,310
■ Projected Payroll	173,686	74,487	64,273	312,446
■ ADC - %				
• Normal Cost	2.0%	3.0%	9.7%	3.8%
• UAAL Amortization	<u>5.2%</u>	<u>6.0%</u>	<u>16.8%</u>	<u>7.8%</u>
• Total	7.2%	9.0%	26.5%	11.6%

RESULTS

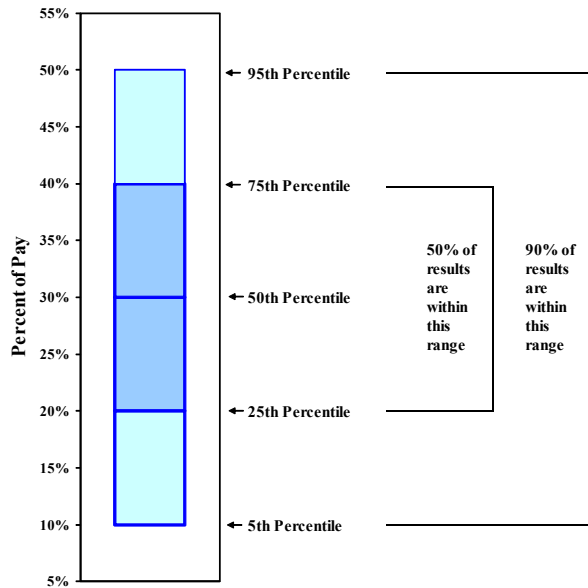
Schedule of Funding Progress
 (Amounts in 000's)

Actuarial Valuation Date ¹⁵	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%

¹⁵ 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.

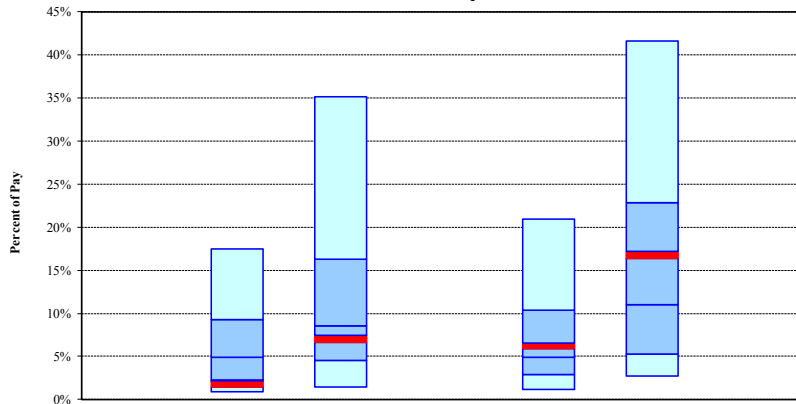
BARTEL ASSOCIATES OPEB DATABASE

**Bartel Associates OPEB Database
Sample Percentile Graph**



BARTEL ASSOCIATES OPEB DATABASE

**Bartel Associates OPEB Database
Normal Cost & Annual Required Contribution**

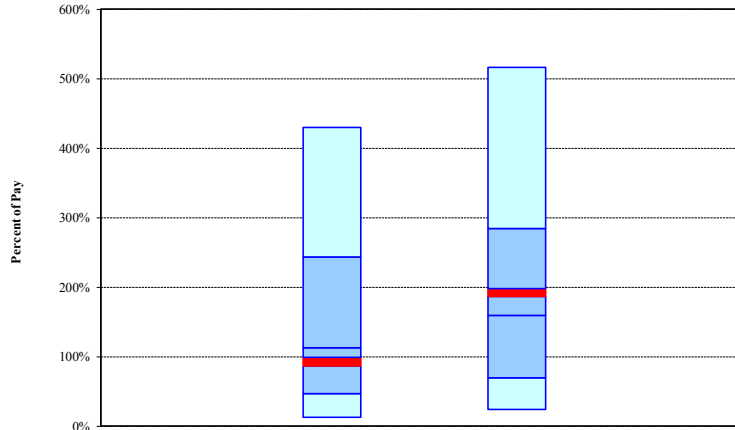


	<u>Miscellaneous</u>		<u>Safety</u>	
	<u>NC</u>	<u>ARC</u>	<u>NC</u>	<u>ARC</u>
95th Percentile	17.5%	35.1%	20.9%	41.6%
75th Percentile	9.3%	16.3%	10.3%	22.8%
50th Percentile	4.9%	8.5%	4.9%	11.0%
25th Percentile	2.3%	4.6%	2.9%	5.3%
5th Percentile	0.9%	1.4%	1.2%	2.7%
Percent of Pay	2.0%	7.0%	6.2%	16.7%
Percentile	21%	42%	59%	63%

Discount Rate = 3.95%, Average Amortization Period = 20.0 Years

BARTEL ASSOCIATES OPEB DATABASE

**Bartel Associates OPEB Database
Actuarial Accrued Liability**



	<u>Miscellaneous</u>	<u>Safety</u>
95th Percentile	430%	516%
75th Percentile	243%	285%
50th Percentile	113%	160%
25th Percentile	47%	70%
5th Percentile	13%	24%
Percent of Pay	93%	192%
Percentile	44%	58%

Discount Rate = 3.95%

ACTUARIAL CERTIFICATION

This report presents the City of Sacramento Retiree Healthcare Plan (“Plan”) June 30, 2017 actuarial valuation. The purpose of this valuation is to:

- Determine the Plan’s June 30, 2017 Funded Status and
- Calculate the 2018/19 and 2019/20 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

Mary Beth Redding, FSA, EA, MAAA, FCA
Vice President
Bartel Associates, LLC
March 9, 2018

Catherine A. Wandro

Catherine A. Wandro, ASA, MAAA, FCA
Assistant Vice President
Bartel Associates, LLC
March 9, 2018

EXHIBITS

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Definitions	E-42

EXHIBITS

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PREMIUMS

2017 Monthly Medical Premiums
Actives

Medical Plan	Single	2-Party	Family
Kaiser HMO - \$25 Co-Pay	\$ 715.56	\$ 1,431.12	\$ 1,903.40
Kaiser HMO - \$40 Co-Pay	705.52	1,411.04	1,876.70
Kaiser HMO - Account Based Health Plan	582.60	1,165.18	1,549.70
Western Health Advantage - \$25 Co-Pay	702.42	1,404.82	1,868.42
Western Health Advantage - \$40 Co-Pay	690.46	1,380.92	1,836.64
Western Health Advantage - Account Based Health Plan	539.08	1,078.14	1,433.92
Sutter Health Plus - \$25 Co-Pay	683.82	1,368.46	1,818.50
Sutter Health Plus - \$40 Co-Pay	658.54	1,318.06	1,752.66
Sutter Health Plus - Account Based Health Plan	559.10	1,118.02	1,486.00

PREMIUMS

2017 Monthly Medical Premiums
Non Medicare Retirees

Medical Plan	Single	2-Party	Family
Kaiser HMO - \$25 Co-Pay	\$ 715.56	\$ 1,431.12	\$ 1,903.40
Kaiser HMO - \$40 Co-Pay	705.52	1,411.04	1,876.70
Western Health Advantage HMO - \$25 Co-Pay	702.42	1,404.82	1,868.42
Western Health Advantage HMO- \$40 Co-Pay	690.46	1,380.92	1,836.64
Sutter Health Plus HMO - \$25 Co-Pay	683.82	1,368.46	1,818.50
Sutter Health Plus HMO - \$40 Co-Pay	658.54	1,318.06	1,752.66

PREMIUMS

2017 Monthly Medical Premiums
Medicare Retirees

Medical Plan	Single	2-Party	Family
Kaiser Senior Advantage - \$15 Co-Pay	\$ 322.40	\$ 612.70	\$ 966.74
Kaiser Senior Advantage - \$20 Co-Pay	312.10	593.12	935.82
Health Net Seniority Plus - \$15 Co-Pay	414.90	829.80	n/a
Health Net Seniority Plus - \$25 Co-Pay	404.84	809.68	n/a

PREMIUMS

2017 Monthly Dental & Vision Premiums

Actives

Dental Plan	Single	2-Party	Family
Delta Dental DPO	\$ 51.42	\$ 97.66	\$130.04
DeltaCare Dental PMI	27.86	52.92	70.44

Retirees

Dental Plan	Single	2-Party	Family
Delta Dental DPO	\$ 49.76	\$ 88.42	\$ 154.16
Delta Care DHMO	27.86	52.92	70.44

Actives and Retirees

Vision Plan	Single	2-Party	Family
VSP - Basic	\$ 7.96	\$ 11.40	\$ 20.42
VSP - Enhanced	10.78	15.44	27.64

PREMIUMS

2018 Monthly Medical Premiums
Actives

Medical Plan	Single	2-Party	Family
Kaiser HMO – \$25 Co-Pay	\$ 729.46	\$1,458.92	\$1,940.30
Kaiser HMO – \$40 Co-Pay	719.24	1,438.48	1,913.10
Kaiser - Account Based Health Plan	593.90	1,187.80	1,579.78
Western Health Advantage – \$25 Co-Pay	734.74	1,469.44	1,954.38
Western Health Advantage – \$40 Co-Pay	722.22	1,444.44	1,921.12
Western Health Advantage - Account Based Health Plan	563.88	1,127.74	1,499.88
Sutter Health Plus – \$25 Co-Pay	719.42	1,438.78	1,914.74
Sutter Health Plus – \$40 Co-Pay	693.06	1,386.10	1,844.66
Sutter Health Plus - Account Based Health Plan	589.00	1,177.86	1,566.76

PREMIUMS

2018 Monthly Medical Premiums
Non Medicare Retirees

Medical Plan	Single	2-Party	Family
Kaiser HMO – \$25 Co-Pay	\$ 729.46	\$1,458.92	\$1,940.30
Kaiser HMO – \$40 Co-Pay	719.24	1,438.48	1,913.10
Western Health Advantage – \$25 Co-Pay	734.74	1,469.44	1,954.38
Western Health Advantage – \$40 Co-Pay	722.22	1,444.44	1,921.12
Sutter Health Plus – \$25 Co-Pay	719.42	1,438.78	1,914.74
Sutter Health Plus – \$40 Co-Pay	693.06	1,386.10	1,844.66

PREMIUMS

2018 Monthly Medical Premiums
Medicare Retirees

Medical Plan	Single	2-Party	Family
Kaiser Senior Advantage – \$20 Co-Pay	\$ 323.68	\$ 615.14	\$ 970.54
Health Net Seniority Plus – \$15 Co-Pay	435.21	870.42	n/a

PREMIUMS

2018 Monthly Dental & Vision Premiums

Actives

Dental Plan	Single	2-Party	Family
Delta Dental DPO	\$ 52.32	\$ 99.38	\$ 132.34
DeltaCare USA (DMO)	27.86	52.92	70.44

Retirees

Dental Plan	Single	2-Party	Family
Delta Dental DPO	\$ 52.32	\$ 99.38	\$ 132.34
Delta Care USA (DMO)	27.86	52.92	70.44

Actives and Retirees

Vision Plan	Single	2-Party	Family
VSP - Basic	\$ 7.96	\$ 11.40	\$ 20.42
VSP - Enhanced	10.78	15.44	27.64

DATA SUMMARY

Medical Plan Participation
Non-Waived Participants
June 30, 2017

Plan	Actives	Retirees	
		< 65	≥ 65
Kaiser HMO - \$25 Co-Pay (\$15 Co-Pay Post 65)	45%	49%	50%
Kaiser HMO - \$40 Co-Pay (\$20 Co-Pay Post 65)	5%	9%	19%
Kaiser HMO - ABHP	9%	0%	0%
Western Health Advantage - \$25 Co-Pay	12%	18%	1%
Western Health Advantage - \$40 Co-Pay	2%	4%	0%
Western Health Advantage - ABHP	5%	0%	0%
Sutter Health Plus - \$25 Co-Pay	14%	11%	1%
Sutter Health Plus - \$40 Co-Pay	6%	6%	1%
Sutter Health Plus - ABHP	2%	0%	0%
Health Net Seniority Plus - \$15 Co-Pay	0%	2%	21%
Health Net Seniority Plus - \$25 Co-Pay	0%	1%	7%
Total	100%	100%	100%

DATA SUMMARY

Current Active Medical Coverage
June 30, 2017

Medical Plan	Single	2-Party	Family	Waived	Total
Kaiser HMO - \$25 Co-Pay	752	183	449	-	1,384
Kaiser HMO - \$40 Co-Pay	73	19	52	-	144
Kaiser HMO - ABHP	123	29	131	-	283
Western Health Adv. - \$25 Co-Pay	188	50	125	-	363
Western Health Adv. - \$40 Co-Pay	19	12	17	-	48
Western Health Adv. - ABHP	80	13	52	-	145
Sutter Health Plus - \$25 Co-Pay	201	53	170	-	424
Sutter Health Plus - \$40 Co-Pay	79	35	67	-	181
Sutter Health Plus - ABHP	38	7	31	-	76
Waived	-	-	-	668	668
Total	1,553	401	1,094	668	3,716

DATA SUMMARY

Current Retiree Medical Coverage – Pre 65

Medical Plan	Single	2-Party	Family	Waived	Total
Kaiser HMO - \$25 Co-Pay	167	40	12	-	219
Kaiser HMO - \$40 Co-Pay	17	10	5	-	32
Kaiser Oregon HMO	2	-	-	-	2
Kaiser Senior Advantage - \$15 Co-Pay	18	4	1	-	23
Kaiser Senior Advantage - \$20 Co-Pay	7	8	-	-	15
Health Net Seniority Plus - \$15 Co-Pay	12	-	-	-	12
Health Net Seniority Plus - \$25 Co-Pay	5	1	-	-	6
Western Health Adv. HMO- \$25 Co-Pay	69	20	4	-	93
Western Health Adv. HMO - \$40 Co-Pay	10	5	3	-	18
Sutter Health Plus HMO - \$25 Co-Pay	43	12	2	-	57
Sutter Health Plus HMO - \$40 Co-Pay	17	6	5	-	28
In Lieu Reimbursement	-	-	-	42	42
Waived	-	-	-	460	460
Total	367	106	32	502	1,007

DATA SUMMARY

Current Retiree Medical Coverage – Post 65

Medical Plan	Single	2-Party	Family	Waived	Total
Kaiser HMO - \$25 Co-Pay	53	6	-	-	59
Kaiser HMO - \$40 Co-Pay	2	2	-	-	4
Kaiser Colorado HMO	3	1	-	-	4
Kaiser Hawaii HMO	1	1	-	-	2
Kaiser Oregon HMO	7	1	-	-	8
Kaiser Senior Advantage - \$15 Co-Pay	360	228	6	-	594
Kaiser Senior Advantage - \$20 Co-Pay	149	104	1	-	254
Health Net Seniority Plus - \$15 Co-Pay	205	77	2	-	284
Health Net Seniority Plus - \$25 Co-Pay	59	37	-	-	96
Western Health Adv. HMO - \$25 Co-Pay	10	2	1	-	13
Western Health Adv. HMO- \$40 Co-Pay	2	-	-	-	2
Sutter Health Plus HMO - \$25 Co-Pay	12	3	-	-	15
Sutter Health Plus HMO - \$40 Co-Pay	4	3	-	-	7
In Lieu Reimbursement	-	-	-	147	147
Waived	-	-	-	740	740
Total	867	465	10	887	2,229

DATA SUMMARY

Dental Coverage

June 30, 2017

Actives

Dental Plan	Single	2-Party	Family	Waived	Total
Delta Dental DPPO	1,086	503	1,083	-	2,672
Delta Care DHMO	191	72	151	-	414
Waived	-	-	-	630	630
Total	1,277	575	1,234	630	3,716

Retirees

Dental Plan	Single	2-Party	Family	Waived	Total
Delta Dental DPPO	1,142	1,095	208	-	2,445
Delta Care DHMO	75	46	7	-	128
Waived	-	-	-	663	663
Total	1,217	1,141	215	663	3,236

DATA SUMMARY

Vision Coverage

June 30, 2017

Actives

Vision Plan	Single	2-Party	Family	Waived	Total
VSP - Basic	698	371	538	-	1,607
VSP - Enhanced	262	166	184	-	612
Waived	-	-	-	1,497	1,497
Total	960	537	722	1,497	3,716

Retirees

Vision Plan	Single	2-Party	Family	Waived	Total
VSP - Basic	313	327	83	-	723
VSP - Enhanced	133	220	69	-	422
Waived	-	-	-	2,091	2,091
Total	446	547	152	2,091	3,236

DATA SUMMARY

Retiree Medical and Dental Participation

Valuation Date	Medical Only	Dental Only	Both Medical & Dental	Neither Medical nor Dental	Total
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

DATA SUMMARY

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DATA SUMMARY

Retiree Medical Plan Coverage by Age

June 30, 2017

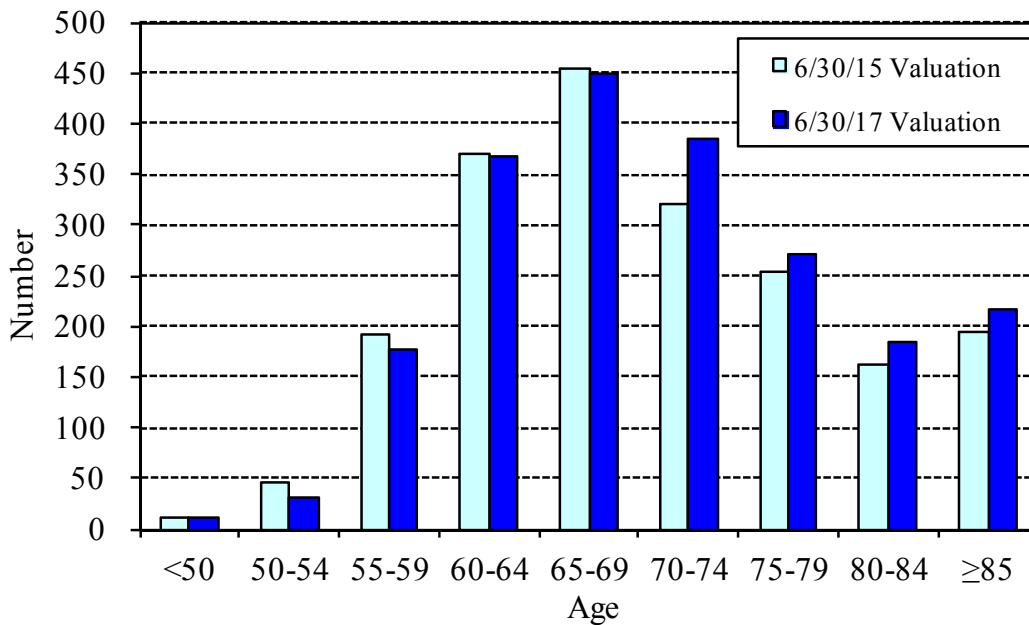
Miscellaneous

Age	Single	2-Party	Family	Waived	Total
Under 50	1	1	-	8	10
50-54	9	-	3	20	32
55-59	52	19	1	105	177
60-64	151	32	5	179	367
65-69	156	87	4	203	450
70-74	144	62	-	178	384
75-80	100	56	1	114	271
80-85	79	33	2	71	185
85 & Over	109	26	-	82	217
Total	801	316	16	960	2,093
Average Age	72.5	72.2	64.7	70.1	71.3

DATA SUMMARY

Retiree Age Distribution

Miscellaneous



DATA SUMMARY

Retiree Medical Plan Coverage by Age

June 30, 2017

Police

Age	Single	2-Party	Family	Waived	Total
Under 50	5	-	-	22	27
50-54	16	5	4	46	71
55-59	24	9	1	50	84
60-64	19	15	-	42	76
65-69	39	16	1	34	90
70-74	35	26	-	64	125
75-80	25	27	-	28	80
80-85	18	9	-	15	42
85 & Over	15	5	-	7	27
Total	196	112	6	308	622
Average Age	69.1	71.0	56.6	64.3	66.9



March 9, 2018

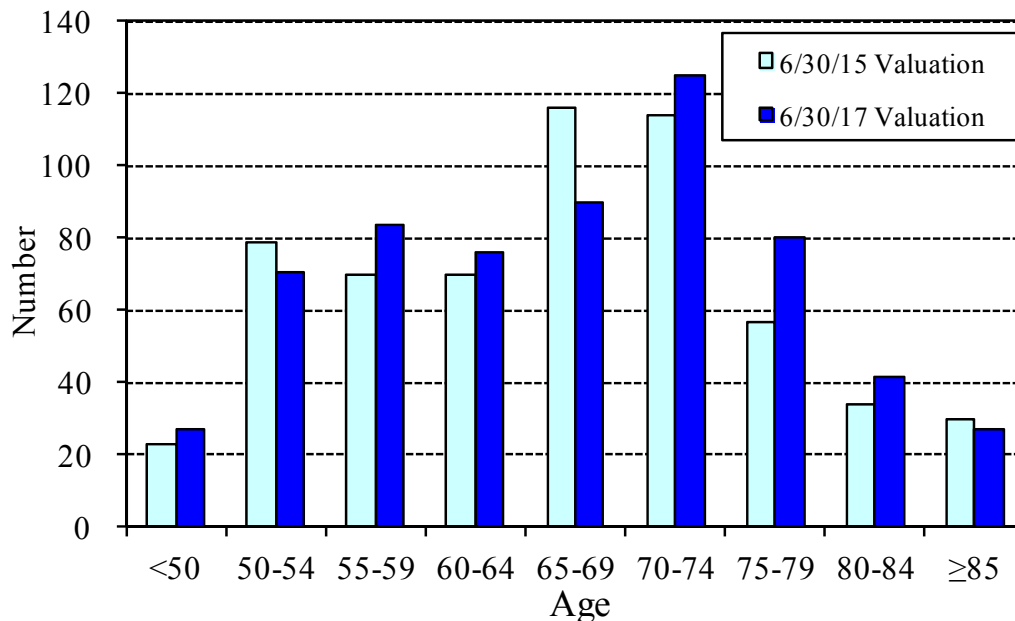
E-19



DATA SUMMARY

Retiree Age Distribution

Police



March 9, 2018

E-20



DATA SUMMARY

Retiree Medical Plan Coverage by Age

June 30, 2017

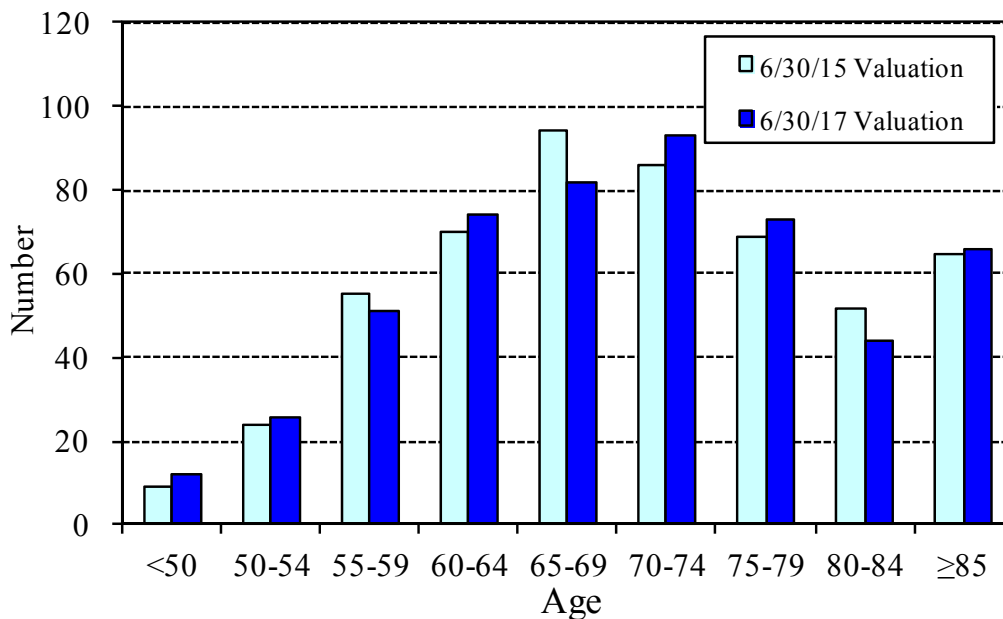
Fire

Age	Single	2-Party	Family	Waived	Total
Under 50	7	-	-	5	12
50-54	13	2	9	2	26
55-59	30	7	5	9	51
60-64	40	16	4	14	74
65-69	35	27	2	18	82
70-74	38	35	-	20	93
75-80	22	28	-	23	73
80-85	17	14	-	13	44
85 & Over	35	14	-	17	66
Total	237	143	20	121	521
Average Age	71.5	72.1	60.4	69.0	70.4

DATA SUMMARY

Retiree Age Distribution

Fire



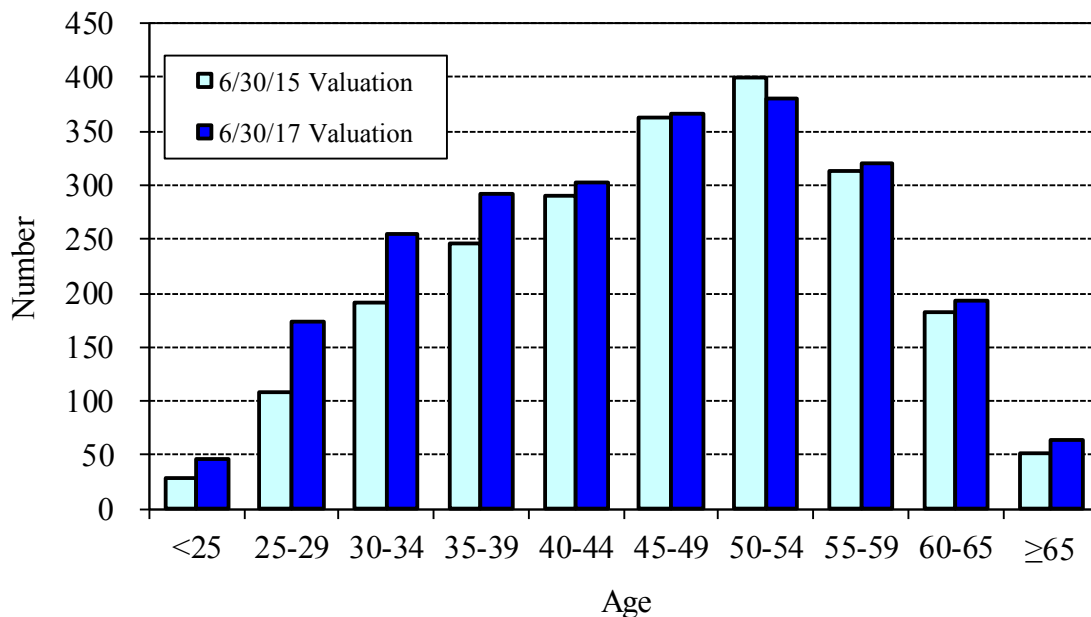
DATA SUMMARY

Actives by Age and Service
June 30, 2017
Miscellaneous

Age	City Service							Total
	< 1	1-4	5-9	10-14	15-19	20-24	≥ 25	
< 25	17	28	2	-	-	-	-	47
25-29	63	98	9	3	-	-	-	173
30-34	54	127	28	37	9	-	-	255
35-39	44	119	32	67	27	3	-	292
40-44	31	85	37	87	46	15	2	303
45-49	23	82	28	95	73	34	31	366
50-54	20	53	27	76	74	40	90	380
55-59	11	31	22	55	66	29	106	320
60-64	3	17	13	46	38	18	58	193
≥ 65	1	10	4	14	12	5	18	64
Total	267	650	202	480	345	144	305	2,393

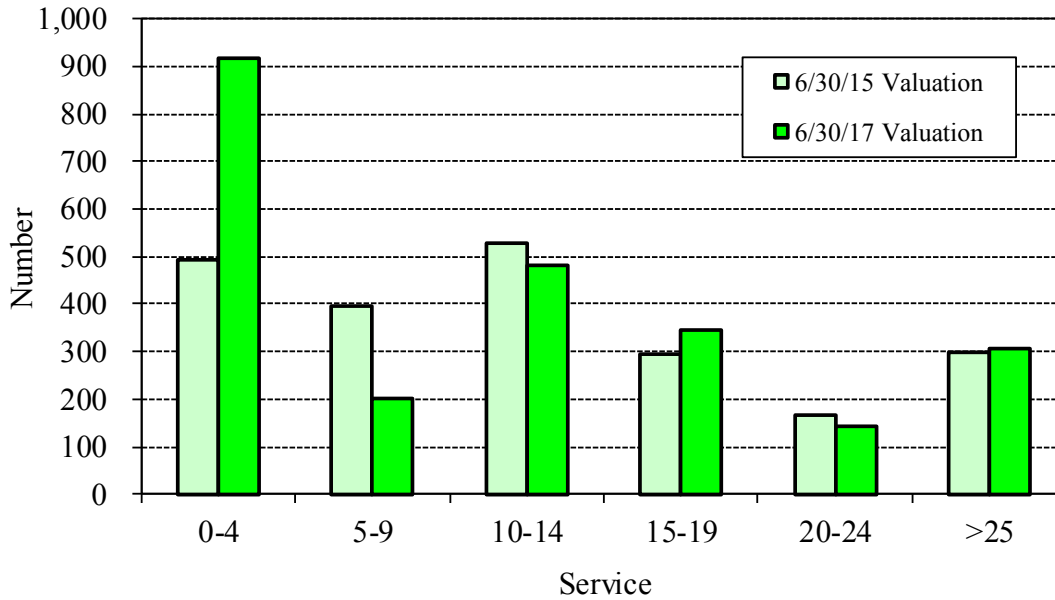
DATA SUMMARY

Active Age Distribution
Miscellaneous



DATA SUMMARY

Active Service Distribution
Miscellaneous



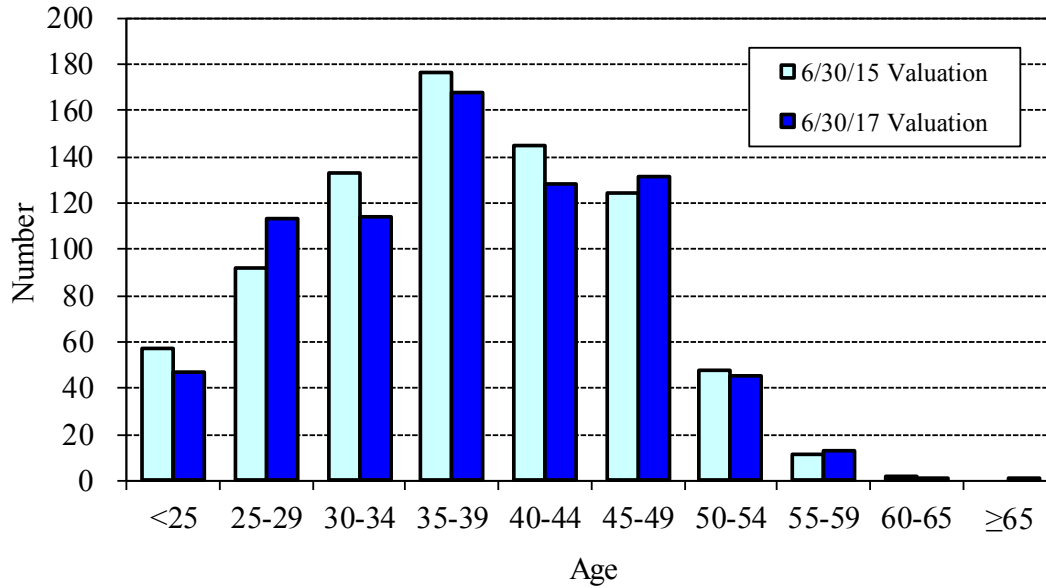
DATA SUMMARY

Actives by Age and Service
June 30, 2017
Police

Age	City Service							Total
	< 1	1-4	5-9	10-14	15-19	20-24	≥ 25	
< 25	15	32	-	-	-	-	-	47
25-29	32	79	2	-	-	-	-	113
30-34	6	48	20	38	2	-	-	114
35-39	-	15	13	103	33	4	-	168
40-44	-	4	1	49	53	19	2	128
45-49	-	-	2	24	44	40	21	131
50-54	-	-	1	4	7	7	26	45
55-59	-	-	-	1	-	2	10	13
60-64	-	-	-	-	-	-	1	1
≥ 65	-	-	-	-	-	1	-	1
Total	53	178	39	219	139	73	60	761

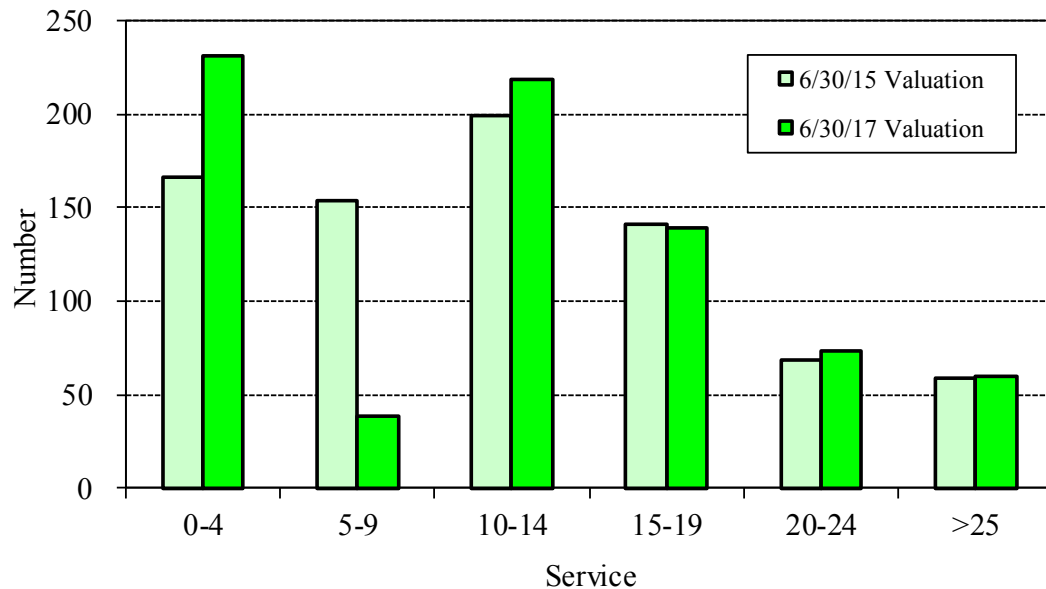
DATA SUMMARY

Active Age Distribution
Police



DATA SUMMARY

Active Service Distribution
Police



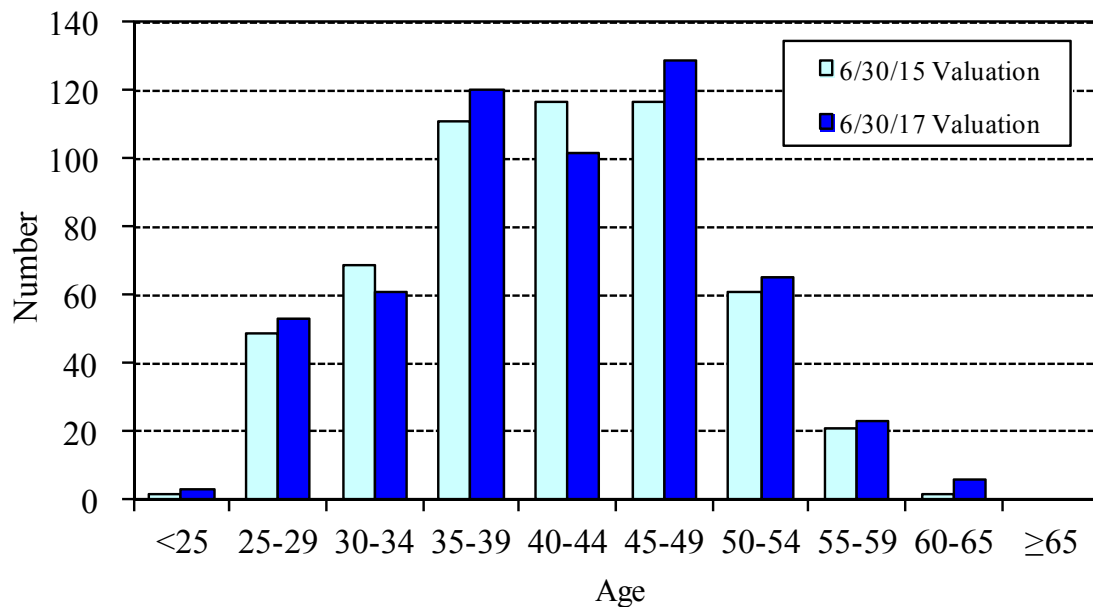
DATA SUMMARY

Actives by Age and Service
June 30, 2017
Fire

Age	City Service							Total
	< 1	1-4	5-9	10-14	15-19	20-24	≥ 25	
< 25	-	3	-	-	-	-	-	3
25-29	5	44	4	-	-	-	-	53
30-34	3	43	7	8	-	-	-	61
35-39	3	19	12	76	9	1	-	120
40-44	1	4	4	36	48	9	-	102
45-49	1	1	4	28	46	45	4	129
50-54	-	1	1	5	12	28	18	65
55-59	-	1	-	2	3	4	13	23
60-64	-	-	-	1	1	1	3	6
≥ 65	-	-	-	-	-	-	-	-
Total	13	116	32	156	119	88	38	562

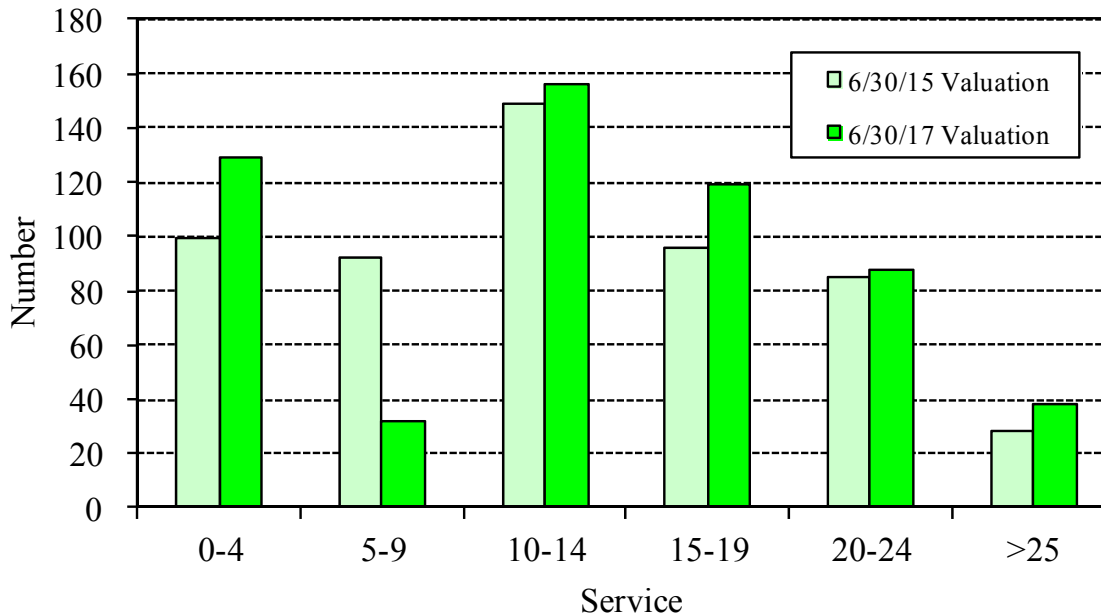
DATA SUMMARY

Active Age Distribution
Fire



DATA SUMMARY

Active Service Distribution
Fire



ACTUARIAL ASSUMPTIONS

	June 30, 2015 Valuation	June 30, 2017 Valuation
<ul style="list-style-type: none"> ■ Valuation Date 	<ul style="list-style-type: none"> ■ June 30, 2015 ■ Fiscal Years 2016/17 & 2017/18 	<ul style="list-style-type: none"> ■ June 30, 2017 ■ Fiscal Years 2018/19 & 2019/20
<ul style="list-style-type: none"> ■ Discount Rate 	<ul style="list-style-type: none"> ■ 4.50% – Pre-fund one time resources ■ CERBT asset allocation strategy #1 	<ul style="list-style-type: none"> ■ 3.95% ■ Based on closed group crossover analysis following GASBS 75 methodology: <ul style="list-style-type: none"> • Projected City contributions of \$1.5 million per year • 6.75% rate for full ADC pre-funding and S&P 20-year bond index rate (3.13% as of 6/30/17) for pay-go pre-funding ■ CERBT asset allocation strategy #1 (57% global equity, 27% fixed income, 5% TIPS, 8% REITs, 3% commodities)

ACTUARIAL ASSUMPTIONS

	June 30, 2015 Valuation	June 30, 2017 Valuation
■ General Inflation	■ 3.00%	■ 2.75%
■ Aggregate Payroll Increases	■ 3.25%	■ 3.00%
■ Mortality, Termination, Disability	<ul style="list-style-type: none"> ■ CalPERS – 1997-2011 Experience Study ■ SCERS – 6/30/13 Valuation Assumptions ■ Mortality projected fully generational with Scale MP-14, modified to converge to ultimate improvement rates in year 2022 	<ul style="list-style-type: none"> ■ CalPERS – 1997-2011 Experience Study ■ SCERS – 6/30/17 Valuation Assumptions (limited applicability) ■ Mortality projected fully generational with Scale MP-16

ACTUARIAL ASSUMPTIONS

	June 30, 2015 Valuation	June 30, 2017 Valuation																																										
■ Service Retirement	<ul style="list-style-type: none"> ■ CalPERS 1997-2011 Experience Study <table border="0" style="margin-left: 20px;"> <thead> <tr> <th></th> <th style="border-bottom: 1px solid black;">Level</th> <th style="border-bottom: 1px solid black;">ERA</th> </tr> </thead> <tbody> <tr> <td>Fire</td> <td>3%@55</td> <td>57</td> </tr> <tr> <td>Police</td> <td>3%@50</td> <td>54</td> </tr> <tr> <td>Misc</td> <td>2%@55</td> <td>59</td> </tr> <tr> <td>Fire PEPRA</td> <td>2.7%@57</td> <td>58</td> </tr> <tr> <td>Police PEPRA</td> <td>2.7%@57</td> <td>56</td> </tr> <tr> <td>Misc PEPRA</td> <td>2%@62</td> <td>61</td> </tr> </tbody> </table> ■ SCERS – 6/30/13 Valuation Assumptions 		Level	ERA	Fire	3%@55	57	Police	3%@50	54	Misc	2%@55	59	Fire PEPRA	2.7%@57	58	Police PEPRA	2.7%@57	56	Misc PEPRA	2%@62	61	<ul style="list-style-type: none"> ■ CalPERS 1997-2011 Experience Study <table border="0" style="margin-left: 20px;"> <thead> <tr> <th></th> <th style="border-bottom: 1px solid black;">Level</th> <th style="border-bottom: 1px solid black;">ERA</th> </tr> </thead> <tbody> <tr> <td>Fire</td> <td>3%@55</td> <td>56</td> </tr> <tr> <td>Police</td> <td>3%@50</td> <td>53</td> </tr> <tr> <td>Misc</td> <td>2%@55</td> <td>59</td> </tr> <tr> <td>Fire PEPRA</td> <td>2.7%@57</td> <td>58</td> </tr> <tr> <td>Police PEPRA</td> <td>2.7%@57</td> <td>56</td> </tr> <tr> <td>Misc PEPRA</td> <td>2%@62</td> <td>61</td> </tr> </tbody> </table> ■ SCERS – 6/30/17 Valuation Assumptions 		Level	ERA	Fire	3%@55	56	Police	3%@50	53	Misc	2%@55	59	Fire PEPRA	2.7%@57	58	Police PEPRA	2.7%@57	56	Misc PEPRA	2%@62	61
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Misc PEPRA	2%@62	61																																										
■ CalPERS Service	■ City service plus ½ service between age 30 and City hire date	■ Same																																										

ACTUARIAL ASSUMPTIONS

	June 30, 2015 Valuation			June 30, 2017 Valuation		
■ Medical Trend		<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>
	2015	Actual 2015 Premiums		2017	Actual 2017 Premiums	
	2016	Actual 2016 Premiums		2018	Actual 2018 Premiums	
	2017	7.0%	7.2%	2019	7.50%	6.50%
	2018	6.5%	6.7%	2020	7.50%	6.50%
	2019	6.0%	6.1%	2021	7.25%	6.30%
	2020	5.5%	5.6%	2022	7.00%	6.10%
	2021+	5.0%	5.0%	2023	6.75%	5.90%
				2024	6.50%	5.70%
				2025	6.25%	5.50%
				2026	6.00%	5.30%
				2027	5.80%	5.15%
				2028	5.60%	5.00%

ACTUARIAL ASSUMPTIONS

	June 30, 2015 Valuation	June 30, 2017 Valuation
■ Dental & Vision Trend	■ 3.00%	■ 2.75%
■ Cap Increase Rates	<ul style="list-style-type: none"> ■ Fire hired <1/14/15: <ul style="list-style-type: none"> • Lowest cost \$25 co-pay medical premium – medical trend • Lowest cost PPO dental premium – dental trend ■ All Misc, All Police, and Fire hired ≥ 1/14/15: 3% starting 2017 	<ul style="list-style-type: none"> ■ Fire hired <1/14/15: <ul style="list-style-type: none"> • Lowest cost \$25 co-pay medical premium – medical trend • Lowest cost PPO dental premium – dental trend ■ All Misc, All Police, and Fire hired ≥ 1/14/15: 0%
■ Affordable Care Act (ACA) Excise Tax	■ n/a	■ 2% liability load on cash subsidy to estimate impact

ACTUARIAL ASSUMPTIONS

	June 30, 2015 Valuation	June 30, 2017 Valuation																																																						
<p>■ Participation at Retirement</p>	<p>■ Based on current retiree participation, varies by % of cash benefit earned at retirement:</p> <table border="1"> <thead> <tr> <th>% of Benefit Earned</th> <th>Participation Assumption</th> </tr> </thead> <tbody> <tr> <td align="center">0%</td> <td align="center">10%</td> </tr> <tr> <td align="center">50%</td> <td align="center">40%</td> </tr> <tr> <td align="center">75%</td> <td align="center">55%</td> </tr> <tr> <td align="center">100%</td> <td align="center">75%</td> </tr> </tbody> </table>	% of Benefit Earned	Participation Assumption	0%	10%	50%	40%	75%	55%	100%	75%	<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&D&V</td> <td align="center">10%</td> <td align="center">23%</td> <td align="center">30%</td> <td align="center">35%</td> </tr> <tr> <td>D & V</td> <td align="center">10%</td> <td align="center">40%</td> <td align="center">35%</td> <td align="center">30%</td> </tr> <tr> <td>M & D</td> <td align="center">0%</td> <td align="center">10%</td> <td align="center">14%</td> <td align="center">20%</td> </tr> <tr> <td>M & V</td> <td align="center">0%</td> <td align="center">3%</td> <td align="center">0%</td> <td align="center">4%</td> </tr> <tr> <td>M Only</td> <td align="center">10%</td> <td align="center">12%</td> <td align="center">9.5%</td> <td align="center">7%</td> </tr> <tr> <td>D Only</td> <td align="center">10%</td> <td align="center">3%</td> <td align="center">1.5%</td> <td align="center">0.5%</td> </tr> <tr> <td>V Only</td> <td align="center">0%</td> <td align="center">0%</td> <td align="center">1%</td> <td align="center">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%
% of Benefit Earned	Participation Assumption																																																							
0%	10%																																																							
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M Only	10%	12%	9.5%	7%																																																				
D Only	10%	3%	1.5%	0.5%																																																				
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"> • Sect 399 – Age 62 • Sect 175 – Age 65 	<p>■ Same</p>																																																						

ACTUARIAL ASSUMPTIONS

	June 30, 2015 Valuation				June 30, 2017 Valuation			
<p>■ Estimated Monthly Age-Based Claims Cost per Retiree</p>		FY 2015/16				FY 2017/18		
	Medical Plan	Age	M	F	Medical Plan	Age	M	F
	Kaiser HMO	50	\$610	\$794	Kaiser HMO	50	\$676	\$738
		55	789	809		55	876	883
		60	1,002	863		60	1,120	1,053
	Sutter Health	50	642	835	Sutter Health	50	695	758
		55	830	851		55	901	907
		60	1,055	909		60	1,152	1,082
	Western Health	50	616	801	Western Health	50	652	711
		55	796	816		55	844	850
60		1,011	871	60		1,079	1,014	
				■ Includes updated age-related claims cost factors				

ACTUARIAL ASSUMPTIONS

	June 30, 2015 Valuation	June 30, 2017 Valuation
<ul style="list-style-type: none"> ■ Medical Plan at Retirement 	<ul style="list-style-type: none"> ■ Currently covered – Same as active elections: <ul style="list-style-type: none"> • Pre-Medicare – same as current active elections with Account Based Plans => Standard Plans • Post-Medicare: <ul style="list-style-type: none"> ➢ Kaiser => Kaiser SA ➢ Sutter Health and Western Health => HN Seniority+ ■ Currently waived – Kaiser HMO Premium Plan 	<ul style="list-style-type: none"> ■ Same
<ul style="list-style-type: none"> ■ Waived Retiree Re-Election 	<ul style="list-style-type: none"> ■ Retirees < 65 – 30% re-elect at age 65 ■ Retirees ≥ 65 – 0% re-elect 	<ul style="list-style-type: none"> ■ Same

ACTUARIAL ASSUMPTIONS

	June 30, 2015 Valuation	June 30, 2017 Valuation
<ul style="list-style-type: none"> ■ Medicare Eligible Rate 	<ul style="list-style-type: none"> ■ Hired before 4/1/86: <ul style="list-style-type: none"> • Misc – 90% • Safety – 80% ■ Hired on or after 4/1/86: 100% ■ Retirees under age 65: <ul style="list-style-type: none"> • Misc – 95% • Safety – 90% 	<ul style="list-style-type: none"> ■ Same
<ul style="list-style-type: none"> ■ Marital Status at Retirement 	<ul style="list-style-type: none"> ■ Actives: <ul style="list-style-type: none"> • Currently covered – current marital status • Not currently covered – 85% married ■ Retirees – current marital status 	<ul style="list-style-type: none"> ■ Same

ACTUARIAL ASSUMPTIONS

	June 30, 2015 Valuation	June 30, 2017 Valuation
<ul style="list-style-type: none"> ■ Spouse Age 	<ul style="list-style-type: none"> ■ Actives – Males 3 years older than females ■ Retirees – Males 3 years older than females if spouse birth date not available 	<ul style="list-style-type: none"> ■ Same
<ul style="list-style-type: none"> ■ Surviving Spouse Participation 	<ul style="list-style-type: none"> ■ 100% 	<ul style="list-style-type: none"> ■ Same
<ul style="list-style-type: none"> ■ Dependents at Retirement 	<ul style="list-style-type: none"> ■ Pre-65: <ul style="list-style-type: none"> • Actives <ul style="list-style-type: none"> ➢ Misc – 10% ➢ Safety – 20% • Retirees – same as current coverage ■ Post-65 – 0% 	<ul style="list-style-type: none"> ■ Same

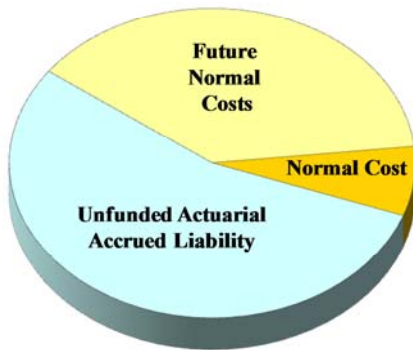
DEFINITIONS

<ul style="list-style-type: none"> ■ OPEB Actuarial Valuation 	<ul style="list-style-type: none"> ■ Project future employer-provided benefit cash flows for current active employees and current retirees ■ 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) ■ Allocate PVB to past, current, and future periods using the actuarial cost method ■ 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) ■ Normal Cost is amount allocated to current fiscal year ■ Actuarial Accrued Liability (AAL) is amount allocated to prior service with employer ■ Unfunded AAL (UAAL) is AAL less plan assets pre-funded in a segregated and restricted trust
<ul style="list-style-type: none"> ■ PayGo Cost 	<ul style="list-style-type: none"> ■ Cash subsidy is the pay-as-you-go employer benefit payments for retirees ■ Implied subsidy is the difference between the actual cost of retiree benefits and retiree premiums subsidized by active employee premiums

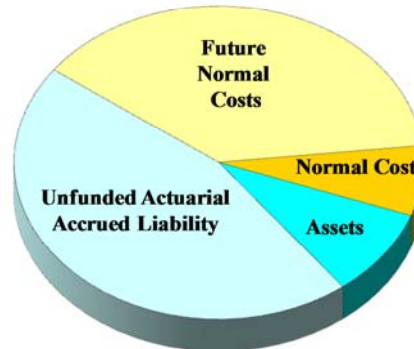
DEFINITIONS

Present Value of Benefits

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



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



DEFINITIONS

■ Terminology
Used in
Report

- AAL - Actuarial Accrued Liability
- AOC - Annual OPEB Cost
- ADC - Actuarially Determined Contribution
- ARC - Annual Required Contribution
- AVA - Actuarial Value of Assets
- EAN - Entry Age Normal Cost Method
- GASBS 45 - Governmental Accounting Standards Board Statement No. 45
- GASBS 75 - Governmental Accounting Standards Board Statement No. 75
- MVA – Market Value of Assets
- NC - Normal cost
- NOO - Net OPEB Obligation
- 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, 2019 GASBS 75

Accounting Information

As of Measurement Date June 30, 2018

Based on the June 30, 2017 Actuarial Valuation

Mary Elizabeth Redding, Vice President

Catherine A. Wandro, Assistant Vice President

Daniel Park, Actuarial Analyst

Bartel Associates, LLC

October 3, 2019

Contents

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Applicable Dates

Applicable Dates and Periods

	Fiscal Year Ending June 30, 2019
■ Measurement date	June 30, 2018
■ Measurement period	July 1, 2017 to June 30, 2018
■ Actuarial valuation date	June 30, 2017

Update procedures were used to roll forward the Total OPEB Liability from the valuation date (June 30, 2017) to the measurement date (June 30, 2018).

Note Disclosures

Plan Information

	Fiscal Year Ending June 30, 2019
■ Plan type	Agent Multiple Employer
■ OPEB trust	Yes
■ Special funding situation	No
■ Nonemployer contributing entities	No

Note Disclosures

Expected Long-Term Rate of Return

	Target Allocation* CERBT-Strategy 1	Expected Real Rate of Return
■ Asset Class Component		
● Global Equity	57%	4.82%
● Fixed Income	27%	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 on the measurement date (June 30, 2018). Changes to the target investment allocation effective October 1, 2018 do not have a significant impact on the expected long-term rate of return.

Note Disclosures

Covered Participants*

At June 30, 2018, the measurement date, the following numbers of participants were covered by the benefit terms:

	Number of Covered Participants
■ Inactives currently receiving benefits	2,680
■ Inactives entitled to but not yet receiving benefits	400
■ Active employees	3,527
■ Total	6,607

* As reported by the City.

Note Disclosures

Net OPEB Liability/(Asset)

(Amounts in 000's)

	Fiscal Year Ending	
	6/30/18	6/30/19
	Measurement Date 6/30/17	Measurement Date 6/30/18
■ Total OPEB Liability (TOL)	\$ 415,957	\$ 399,873
■ Fiduciary Net Position (FNP)	26,445	37,027
■ Net OPEB Liability (NOL)	389,512	362,846
■ Funded status (FNP/TOL)	6.4%	9.3%



Note Disclosures

Changes in Net OPEB Liability/(Asset)

(Amounts in 000's)

	Total OPEB Liability	Fiduciary Net Position	Net OPEB Liability
■ Balance at 6/30/18 (6/30/17 measurement date)	\$ 415,957	\$ 26,445	\$ 389,512
■ Changes for the year			
● Service Cost	11,052	-	11,052
● Interest	16,612	-	16,612
● Changes of benefit terms	-	-	-
● Actual vs. expected experience	-	-	-
● Assumption changes	(30,845)	-	(30,845)
● Contributions - employer*	-	21,072	(21,072)
● Contributions - employee	-	308	(308)
● Net investment income	-	2,156	(2,156)
● Benefit payments*	(12,903)	(12,903)	-
● Administrative expenses	-	(51)	51
■ Net Changes	(16,084)	10,582	(26,666)
■ Balance at 6/30/19 (6/30/18 measurement date)	\$ 399,873	\$ 37,027	\$ 362,846

* 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**

	Discount Rate		
	1% Decrease (3.50%)	Current Rate (4.50%)	1% Increase (5.50%)
■ Net OPEB Liability	\$ 421,800	\$ 362,846	\$ 314,937

■ **Changes in the Healthcare Trend Rate**

	Healthcare Trend Rate		
	1% Decrease	Current Trend	1% Increase
■ Net OPEB Liability	\$ 306,508	\$ 362,846	\$ 433,790



Note Disclosures

OPEB Expense for Fiscal Year

(Amounts in 000's)

	2018/19
	Measurement Period 2017/18
■ OPEB Expense*	\$ 16,264

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



Note Disclosures

Deferred Outflows/Inflows Balances at June 30, 2019

(Amounts in 000's)

	June 30, 2019	
	Deferred Outflows of Resources	Deferred Inflows of Resources
■ Differences between expected and actual experience	\$ -	\$ -
■ Changes in assumptions	-	42,207
■ Net difference between projected and actual earnings on plan investments	-	636
■ Employer contributions made subsequent to the measurement date*	18,406	-
■ Total	18,406	42,843

* See page 20 for details.

Note Disclosures

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

(Amounts in 000's)

FYE June 30	Deferred Outflows/(Inflows) of Resources
■ 2020	\$ (9,256)
■ 2021	(9,256)
■ 2022	(9,257)
■ 2023	(9,115)
■ 2024	(5,456)
■ Thereafter	(503)

Note Disclosures

Significant Actuarial Assumptions Used for Total OPEB Liability

Actuarial Assumption	June 30, 2018 Measurement Date
■ Actuarial Valuation Date	■ June 30, 2017
■ Municipal Bond Rate	<ul style="list-style-type: none"> ■ 2.98% as of June 30, 2018 ■ 3.13% as of June 30, 2017 ■ Standard & Poors 20 Year High Grade Rate
■ Discount Rate and Long-Term Expected Rate of Return on Assets	<ul style="list-style-type: none"> ■ 4.50% Discount Rate at June 30, 2018 ■ 3.95% Discount Rate at June 30, 2017 ■ 6.75% Long-Term Expected Rate of Return on Investments, net of investment expenses
■ General Inflation	■ 2.75% annually
■ Crossover Test Assumptions	<ul style="list-style-type: none"> ■ Assumed \$1.5 million annual contribution after 2018/19 ■ Administrative expenses = .05% of pay ■ The crossover date is 6/30/2044 ■ Single equivalent discount rate at 6/30/18 of 4.5%
■ Mortality, Retirement, Disability, Termination	<ul style="list-style-type: none"> ■ CalPERS 1997-2011 Experience Study ■ SCERS 6/30/17 Valuation Assumptions (limited applicability)

Note Disclosures

Significant Actuarial Assumptions Used for Total OPEB Liability

Actuarial Assumption	June 30, 2018 Measurement Date
■ Mortality Improvement	■ Mortality projected fully generational with Society of Actuaries mortality improvement Scale MP-2016
■ Salary Increases	<ul style="list-style-type: none"> ■ Aggregate - 3% annually ■ Merit - CalPERS 1997-2011 Experience Study
■ Medical Trend	<ul style="list-style-type: none"> ■ 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
■ Healthcare Participation for Future Retirees	<ul style="list-style-type: none"> ■ Medical, dental, and/or vision coverage - varies from 0% to 40% based on percent of benefit earned at retirement ■ Assumptions based on study of recent retiree experience

Note Disclosures

Changes Since June 30, 2017 Measurement Date

	June 30, 2018 Measurement Date
■ Changes of assumptions	■ Discount rate was changed based on an updated crossover test and the June 30, 2018 Municipal Bond Rate
■ Changes of benefit terms	■ None

Required Supplementary Information

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

(Amounts in 000's)

	2018/19
	Measurement Period 2017/18
■ Changes in Total OPEB Liability	
● Service Cost	\$ 11,052
● Interest	16,612
● Changes of benefit terms	-
● Actual vs. expected experience	-
● Assumption changes	(30,845)
● Benefit payments	(12,903)
■ Net Changes	(16,084)
■ Total OPEB Liability (beginning of year)	415,957
■ Total OPEB Liability (end of year)	399,873

Required Supplementary Information

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

(Amounts in 000's)

	2018/19
	Measurement Period 2017/18
■ Changes in Plan Fiduciary Net Position	
● Contributions - employer	\$ 21,072
● Contributions - employee	308
● Net investment income	2,156
● Benefit payments	(12,903)
● Administrative expenses	(51)
● Other changes	-
● Net Changes	10,582
■ Plan Fiduciary Net Position (beginning of year)	26,445
■ Plan Fiduciary Net Position (end of year)	37,027



Required Supplementary Information

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

(Amounts in 000's)

	2018/19
■ Net OPEB Liability/(Asset)	\$ 362,846
■ Fiduciary Net Position as a percentage of the Total OPEB Liability	9.3%
■ Covered employee payroll*	236,885
■ Net OPEB Liability as a percentage of covered employee payroll	153.2%

* For the 12-month period ending on June 30, 2018 (Measurement Date).
As reported by the City.



Required Supplementary Information

Schedule of Employer Contributions

(Amounts in 000's)

	Fiscal Year 2018/19
■ Actuarially Determined Contribution (ADC)*	\$ 34,151
■ Contributions in relation to the actuarially determined contribution**	18,406
■ Contribution deficiency/(excess)	15,745
■ Covered employee payroll***	245,622
■ Contributions as a percentage of covered employee payroll	7.5%

* Employer ADC equals total ADC of \$34,454 less \$303 employee contributions.

** See page 20 for details.

*** For the 12-month period ending on June 30, 2019 (fiscal year end).

As reported by the City.



Required Supplementary Information

Notes to Schedule of Employer Contribution

**Methods and Assumptions for
2018/19 Actuarially Determined Contribution**

■ Valuation Date	■ June 30, 2017
■ Actuarial Cost Method	■ Entry Age Normal, Level % of pay
■ Amortization Method	■ Level % of pay
■ Amortization Period	■ 20-year fixed period for 2018/19
■ 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 Society of Actuaries mortality improvement Scale MP-2016



Actuarial Certification

This report presents City of Sacramento Retiree Healthcare Plan 2018/19 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. The total OPEB liability has been calculated from the June 30, 2017 actuarial valuation. 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, 2017 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, 2017 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

Mary Elizabeth Redding, FSA, EA, FCA, MAAA
Vice President
Bartel Associates, LLC
October 3, 2019

Catherine A. Wandro

Catherine A. Wandro, ASA, FCA, MAAA
Assistant Vice President
Bartel Associates, LLC
October 3, 2019



October 3, 2019

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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
	7/1/17 to 6/30/18	7/1/18 to 6/30/19	Same as Measurement Period
■ Cash benefit payments	\$ 10,123	\$ 10,407	\$ 10,123
■ Implied subsidy benefit payments	2,780	4,483	2,780
■ Total benefit payments	12,903	14,890	12,903
■ Trust reimbursements	-	-	-
■ Benefit payments paid outside of trust	12,903	14,890	12,903
■ Administrative expenses paid outside of trust	-	-	-
■ Trust contributions	8,169	3,516	8,169
■ Total employer contributions	21,072	18,406	21,072

Measurement period (7/1/17 to 6/30/18): \$21,072

Fiscal year (7/1/18 to 6/30/19): \$18,406



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City of Sacramento

Supporting Calculations

Average of the Expected Remaining Service Lives

As of July 1, 2017 (beginning of the measurement period):

	2018/19
	Measurement Period 2017/18
■ Total expected remaining service lives*	40,103 years
■ Covered participants*	6,605
■ Average of the expected remaining service lives (not less than 1 year)	6.1 years

* Participants with no liability excluded for the purpose of calculating the average.

Supporting Calculations

Recognition of Deferred Outflows/Inflows at June 30, 2019

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, 2019	
			18/19	19/20	20/21	21/22	22/23	23/24	24/25+	Outflows	(Inflows)
17/18	-	-	-	-	-	-	-	-	-	-	-
18/19	-	-	-	-	-	-	-	-	-	-	-
Total			-	-	-	-	-	-	-	-	-

Supporting Calculations

Recognition of Deferred Outflows/Inflows at June 30, 2019

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, 2019	
			18/19	19/20	20/21	21/22	22/23	23/24	24/25+	Outflows	(Inflows)
17/18	(24,429)	6.1	(4,005)	(4,005)	(4,005)	(4,005)	(4,005)	(399)	-	-	(16,419)
18/19	(30,845)	6.1	(5,057)	(5,057)	(5,057)	(5,057)	(5,057)	(5,057)	(503)	-	(25,788)
Total			(9,062)	(9,062)	(9,062)	(9,062)	(9,062)	(5,456)	(503)	-	(42,207)



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City of Sacramento

Supporting Calculations

Recognition of Deferred Outflows/Inflows at June 30, 2019

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, 2019	
			18/19	19/20	20/21	21/22	22/23	23/24	24/25+	Outflows	(Inflows)
17/18	(701)	5.0	(140)	(140)	(140)	(141)	-	-	-	-	(421)
18/19	(269)	5.0	(54)	(54)	(54)	(54)	(53)	-	-	-	(215)
Total			(194)	(194)	(194)	(195)	(53)	-	-	-	(636)
Net Deferred Outflows/(Inflows)										-	(636)

Calculation of initial amount for 2018/19 (2017/18 measurement period):

Projected earnings on investments of \$1,887 (page 27), less

Actual earnings on investments of \$2,156 (net investment income, page 15)



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City of Sacramento

Supporting Calculations

Recognition of Deferred Outflows/Inflows in Future OPEB Expense

(Amounts in 000's)

	19/20	20/21	21/22	22/23	23/24	Thereafter 24/25+
■ Differences between Expected and Actual Experience	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
■ Changes of Assumptions	(9,062)	(9,062)	(9,062)	(9,062)	(5,456)	(503)
■ Projected Versus Actual Earnings on Investments	(194)	(194)	(195)	(53)	-	-
■ Total	(9,256)	(9,256)	(9,257)	(9,115)	(5,456)	(503)



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City of Sacramento

Supporting Calculations

Components of GASBS 75 OPEB Expense

(Amounts in 000's)

	2018/19
	Measurement Period 2017/18
■ Service Cost	\$ 11,052
■ Interest on Total OPEB Liability	16,612
■ Projected earnings on investments	(1,887)
■ Employee contributions	(308)
■ Administrative expense	51
■ Changes of benefit terms	-
■ Recognition of deferred outflows/(inflows)	
● Experience	-
● Assumptions	(9,062)
● Asset returns	(194)
■ OPEB Expense	16,264



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City of Sacramento

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)	\$ 26,445	6.75%	100%	\$ 1,785
■ Employer contributions	8,169	6.75%	17%	94
■ Employee contributions	308	6.75%	50%	10
■ Benefit payments	-	6.75%	0%	-
■ Administrative expenses	(51)	6.75%	50%	(2)
■ Projected earnings				<u>1,887</u>

* 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	\$ 415,957	3.95%	100%	\$ 16,430
■ Service Cost	11,052	3.95%	100%	437
■ Changes of benefit terms	-	3.95%	0%	-
■ Assumption changes*	(30,845)	3.95%	0%	-
■ Benefit payments	(12,903)	3.95%	50%	(255)
■ Total interest				<u>16,612</u>

* 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)

	Fiscal Year Ending	
	6/30/18	6/30/19
	Measurement Date 6/30/17	Measurement Date 6/30/18
■ Total OPEB Liability	\$ 415,957	\$ 399,873
■ Fiduciary Net Position	26,445	37,027
■ Net OPEB Liability	389,512	362,846
■ Deferred inflows of resources	20,985	42,843
■ Deferred (outflows) of resources	-	-
■ Balance Sheet	410,497	405,689

Check:

■ Balance Sheet 6/30/18	\$ 410,497
● OPEB Expense	16,264
● Employer Contributions*	(21,072)
■ Balance Sheet 6/30/19	405,689

* 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.

	Debit	(Credit)
■ Net OPEB Liability - (for contributions paid 7/1/17 to 6/30/18)	\$ 21,072	\$ -
■ Deferred Outflow - 7/1/17 to 6/30/18 contributions	-	(21,072)
■ Deferred Outflow - 7/1/18 to 6/30/19 contributions	18,406	-
■ Active employee health care costs - (implied subsidy payments 7/1/18 to 6/30/19)	-	(4,483)
■ OPEB Expense - (for contributions paid 7/1/18 to 6/30/19)	-	(13,923)
<i>Check</i>	<i>39,478</i>	<i>(39,478)</i>



Journal Entries

Summary Journal Entries - OPEB Expense

(Amounts in 000's)

Following records the impact of current year OPEB expense

	Debit	(Credit)
■ Deferred Outflows*	\$ -	\$ -
■ Deferred Inflows**	-	(21,858)
■ OPEB Expense/Credit	16,264	-
■ Net OPEB Liability	5,594	-

Check *21,858* *(21,858)*

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

** See page 35 for details.



Journal Entries

Ending Balances at June 30, 2019

(Amounts in 000's)

	Debit	(Credit)
■ Deferral: Differences between expected and actual experience	\$ -	\$ -
■ Deferral: Changes of assumptions	-	(42,207)
■ Deferral: Net differences between projected and actual earnings on plan investments	-	(636)
■ Total deferred outflow/inflow	-	(42,843)
■ Net OPEB Liability (NOL)	-	(362,846)
■ Contributions after the Measurement Date	18,406	-
■ Net Impact	387,283	-

Check: 405,689 (405,689)

■ Total OPEB expense/(income) for FYE 2019	16,264	-
--	--------	---

Journal Entries

Reconciliation of Deferred Outflows

Detail for page 32

(Amounts in 000's)

Deferred Outflows	Opening Balance - Debit	Journal Entry - Debit	Journal Entry - (Credit)	Ending Balance - Debit
■ 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	21,072	18,406	(21,072)	18,406
■ Total Deferred Outflows	21,072	18,406	(21,072)	18,406

Journal Entries

Reconciliation of Deferred Inflows

Detail for page 32

(Amounts in 000's)

Deferred Inflows	Opening Balance - (Credit)	Journal Entry- (Credit)	Journal Entry - Debit	Ending Balance - (Credit)
■ Differences between actual and expected experience	\$ -	\$ -	\$ -	\$ -
■ Change in assumptions	(20,424)	(21,783)	-	(42,207)
■ Differences between projected and actual earnings on plan investments	(561)	(75)	-	(636)
■ Total Deferred (Inflows)	(20,985)	(21,858)	-	(42,843)



Journal Entries

Reconciliation of Deferred Outflows/(Inflows)

Summary of Balances

(Amounts in 000's)

	Fiscal Year Ending	
	6/30/18	6/30/19
	Measurement Date 6/30/17	Measurement Date 6/30/18
■ Total OPEB (Liability)	\$ (415,957)	\$ (399,873)
■ Fiduciary Net Position	26,445	37,027
■ Net OPEB (Liability)/Asset	(389,512)	(362,846)
■ Deferred (inflows) of resources	(20,985)	(42,843)
■ Deferred outflows of resources	21,072	18,406
■ Balance Sheet Impact	(389,425)	(387,283)

Deferred Outflows include contributions after the measurement date.



Crossover Test

Discount Rate Crossover Test

Projection of Contributions

(Amounts in 000's)

Year	Payroll	ER Contrib. for Current EE	EE Contrib. for Current EE	Contrib. from Payroll of Future EE	Total Employer Contributions for Current Employees
1	\$ 294,510	\$ 21,072	\$ 308	\$ 0	\$ 21,380
2	289,359	18,162	303	0	18,465
3	284,049	16,905	278	0	17,183
4	278,159	17,672	265	0	17,937
5	271,908	18,291	251	0	18,542
6	265,118	18,895	238	0	19,133
7	257,504	19,714	225	0	19,939
8	249,126	20,488	212	0	20,700
9	239,334	21,193	198	0	21,391
10	229,113	21,959	184	0	22,143
*	*	*	*	*	*
25	70,306	24,702	34	0	24,735
26	62,195	23,756	28	0	23,785
27	54,284	22,825	23	0	22,848
28	46,605	21,147	18	0	21,165
29	39,079	19,774	14	0	19,789
*	*	*	*	*	*
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	\$ 26,445	\$ 21,380	\$ 12,903	\$ 51	\$ 2,156	\$ 37,027
2	37,027	18,465	14,890	19	2,437	43,021
3	43,021	17,183	16,184	22	2,358	46,355
4	46,355	17,937	17,214	23	2,548	49,603
5	49,603	18,542	18,108	25	2,737	52,750
6	52,750	19,133	19,005	26	2,919	55,770
7	55,770	19,939	20,143	28	3,085	58,623
8	58,623	20,700	21,261	29	3,239	61,272
9	61,272	21,391	22,340	31	3,382	63,675
10	63,675	22,143	23,498	32	3,505	65,794
*	*	*	*	*	*	*
25	44,270	24,735	33,348	22	1,863	37,497
26	37,497	23,785	32,910	19	1,420	29,773
27	29,773	22,848	32,492	15	913	21,028
28	21,028	21,165	31,329	11	362	11,215
29	11,215	19,789	30,478	6	0	520
*	*	*	*	*	*	*
85	0	0	4	0	0	0
86	0	0	2	0	0	0
87	0	0	2	0	0	0
88	0	0	1	0	0	0
89	0	0	1	0	0	0



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 @ 4.50%
1	\$ 26,445	\$ 12,903	\$ 12,903	\$ 0	\$ 12,488	\$ 0	\$ 12,622
2	37,027	14,890	14,890	0	13,500	0	13,937
3	43,021	16,184	16,184	0	13,746	0	14,495
4	46,355	17,214	17,214	0	13,696	0	14,754
5	49,603	18,108	18,108	0	13,496	0	14,851
6	52,750	19,005	19,005	0	13,269	0	14,915
7	55,770	20,143	20,143	0	13,175	0	15,127
8	58,623	21,261	21,261	0	13,026	0	15,278
9	61,272	22,340	22,340	0	12,822	0	15,362
10	63,675	23,498	23,498	0	12,634	0	15,461
*	*	*	*	*	*	*	*
25	44,270	33,348	33,348	0	6,731	0	11,332
26	37,497	32,910	32,910	0	6,222	0	10,701
27	29,773	32,492	0	32,492	0	14,922	10,109
28	21,028	31,329	0	31,329	0	13,972	9,328
29	11,215	30,478	0	30,478	0	13,199	8,683
*	*	*	*	*	*	*	*
85	0	4	0	4	0	0	0
86	0	2	0	2	0	0	0
87	0	2	0	2	0	0	0
88	0	1	0	1	0	0	0
89	0	1	0	1	0	0	0
*	*	*	*	*	*	*	*
Total					285,735	200,948	486,683

