City of Sacramento
Annual Continuing Disclosure Report
Fiscal Year 2017/18

Issue	Sacramento Public Financing Authority 2015 Lease Revenue Bonds (Golden 1 Center) (Federally Taxable)
Par	$ 272,870,000
Issued	September 24, 2015
CUSIP Numbers	78605QAD9 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, 2018*
* Please note the 2015 Lease Revenue (Golden 1 Center) offsets have been updated to reflect the funding support anticipated to be provided by the Parking Fund. This also has an impact on the last 3 columns (Total Offset Debt Service Amount, Total General Fund Debt Service Amount, and Net Percentage of Budgeted Fiscal Year General Fund Revenues).

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, 2017
Exhibit F – GASB 68 Accounting Valuation Report – Safety Plan as of June 30, 2017
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, 2017

Exhibit A

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

(in thousands)

	Actual 2013-14	Actual 2014-15	Actual 2015-16	Actual 2016-17	Actual 2017-18
Revenues:					
Property Taxes	$ 138,224	$ 145,285	$ 150,424	$ 143,656	$ 153,346
Sales and Use Taxes	56,575	58,876	67,983	80,395	84,887
Utilities Use Tax	59,613	59,948	61,404	62,997	62,989
Other Taxes	20,319	22,677	26,732	29,961	36,184
Licenses and Permits	12,996	14,322	15,866	18,048	22,018
Fines, Forfeitures and Penalties	10,567	10,782	12,110	10,906	12,069
Interest, Rents and Concessions	2,206	1,707	3,002	2,679	1,195
Intergovernmental Revenues	9,300	13,363	16,253	14,009	22,380
Charges, Fees and Services	51,422	57,261	57,951	68,012	78,563
Other Revenues	281	426	245	259	301
Total Revenues	361,503	384,647	411,970	430,922	473,932
Expenditures:					
General Government	22,623	24,842	28,909	36,584	48,694
Public Safety	218,911	226,802	235,290	244,976	257,910
Public Works	15,301	16,169	11,701	14,438	15,423
Neighborhood Services	48,447	52,071	54,985	62,972	68,768
Citywide and Community Support	36,965	37,216	47,961	48,435	46,576
Capital Improvements	9,672	8,901	12,577	19,276	21,513
Debt Service	3,140	3,219	3,219	2,837	2,102
Total Expenditures	355,059	369,220	394,642	429,518	460,986
Excess of Revenues over Expenditures	6,444	15,427	17,328	1,404	12,946
Other Financing Sources (Uses):					
Transfers from Other Funds	29,924	31,275	34,256	33,113	35,414
Transfers to Other Funds	(23,418)	(25,265)	(25,032)	(28,959)	(31,545)
Proceeds from Long-Term Debt	5,998	-	-	-	-
Special Items	-	-	-	-	-
Proceeds from Sale of Capital Assets	-	3,100	-	-	-
Total Other Financing Sources (Uses)	12,504	9,110	9,224	4,154	3,869
Net Change In Fund Balance	18,948	24,537	26,552	5,558	16,815
Fund Balance, beginning of year	79,959	98,907	123,444	149,996	155,554
Fund Balance, end of year	98,907	123,444	149,996	155,554	172,369
Less Reserves and Commitments:					
Nonspendable	66	11	2	3,812	3,845
Restricted	3,422	3,654	2,962	17	-
Committed:					
Economic Uncertainty	33,714	38,967	46,950	49,644	52,700
Capital Projects	21,728	32,987	37,526	49,265	37,583
Fire Programs	-	-	5,720	1,386	6,189
Communtiy Center Theater renovation	8,500	8,500	8,500	-	-
Homeless programs	1,000	750	250	-	-
OPEB and Pension trust fund	-	-	6,752	5,324	7,619
Other Programs	12,909	22,497	13,953	21,367	39,412
Assigned:					
Next Year's Budget	-	-	-	-	-
Unrealized Investment Gains	173	50	732	-	-
Unassigned Fund Balance	$ 17,395	$ 16,028	$ 26,649	$ 24,739	$ 25,021

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			
2009	$ 40,360,550	$ 1,691,096	$ 11,948	$ 42,063,594	$ 503,159	$ 41,560,435	1.00
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

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.

Source: County of Sacramento, Office of Auditor/Controller

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

(in thousands)

	2018			2009		
Taxpayer	Assessed Valuation	Rank	Percentage of Total Assessed Valuation	Assessed Valuation	Rank	Percentage of Total Assessed Valuation
Sacramento Kings	$ 411,221	1	0.88 %	$ -		- %
400 Capitol Mall Owner LP	175,630	2	0.38	-		-
Arden Fair Associates	148,584	3	0.32	128,745	5	0.31
500 Capitol Mall LLC	138,357	4	0.30	-		-
621 Capitol Mall LLC	132,506	5	0.29	-		-
CIM Sacramento LLC	117,626	6	0.25	92,525	10	0.22
300 Capitol Assoc NF LP	114,000	7	0.25	132,810	3	0.32
SG Downtown	112,353	8	0.24	-		-
HP Hood LLC	105,643	9	0.23	-		-
M H VI Projects LLC	97,794	10	0.21	106,121	8	0.26
Hines VAF II Sacramento	-		-	404,301	1	0.96
Teachers Ins. Annuity	-		-	165,424	2	0.40
Downtown Plaza LLC	-		-	128,786	4	0.31
CLPF Promenade LP	-		-	123,025	6	0.30
Sutter Community Hospitals	-		-	120,197	7	0.29
Deustche Bank Nat'l Trust	-		-	102,264	9	0.25
	1,553,714		3.35	1,504,198		3.62
All other taxpayers	45,091,662		96.65	40,056,238		96.38
Total	$ 46,645,376		100.00 %	41,560,436		100.00 %

Source: County of Sacramento, Office of Auditor/Controller

Exhibit D

GENERAL FUND OBLIGATION DEBT SERVICE, AS OF JUNE 30, 2018

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
FY19	15,391,035	30,551,493	672,443	3,958,138	9,534,625.00	18,295,874	22,218,713	2,860,865	103,483,185	21.0%	80,472,202	23,010,983	4.7%
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	14.4%	49,588,585	21,657,143	4.4%
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	14.1%	48,751,096	20,829,450	4.2%
FY22	-	-	672,683	3,941,923	10,749,050.00	18,378,701	19,645,288	138,659	53,526,303	10.8%	36,787,244	16,739,059	3.4%
FY23	-	-	673,696	3,940,606	20,588,900.00	18,289,067	9,928,813	69,330	53,490,411	10.8%	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	10.7%	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	10.7%	36,014,190	16,829,732	3.4%
FY26	-	-	669,250	3,928,351	20,036,856.25	18,286,258	9,898,313	-	52,819,027	10.7%	35,992,339	16,826,688	3.4%
FY27	-	-	673,630	3,926,060	20,030,900.00	18,289,420	9,904,438	-	52,824,447	10.7%	35,992,936	16,831,511	3.4%
FY28	-	-	672,442	3,926,294	20,031,225.00	18,287,643	9,909,388	-	52,826,991	10.7%	35,998,479	16,828,512	3.4%
FY29	-	-	670,899	3,923,604	20,127,975.00	18,285,364	9,896,838	-	52,904,680	10.7%	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	10.7%	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	9.9%	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	9.9%	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	9.7%	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	6.3%	20,901,927	10,290,987	2.1%
FY35	-	-	-	3,892,453	-	18,282,324	5,130,175	-	27,304,951	5.5%	19,384,515	7,920,437	1.6%
FY36	-	-	-	3,880,993	-	18,283,630	5,120,800	-	27,285,423	5.5%	19,382,366	7,903,057	1.6%
FY37	-	-	-	3,872,424	-	18,280,697	5,120,400	-	27,273,521	5.5%	19,377,540	7,895,981	1.6%
FY38	-	-	-	-	-	18,282,397	-	-	18,282,397	3.7%	18,282,397	-	0.0%
FY39	-	-	-	-	-	18,282,040	-	-	18,282,040	3.7%	18,282,040	-	0.0%
FY40	-	-	-	-	-	18,278,216	-	-	18,278,216	3.7%	18,278,216	-	0.0%
FY41	-	-	-	-	-	18,279,516	-	-	18,279,516	3.7%	18,279,516	-	0.0%
FY42	-	-	-	-	-	18,278,967	-	-	18,278,967	3.7%	18,278,967	-	0.0%
FY43	-	-	-	-	-	18,279,878	-	-	18,279,878	3.7%	18,279,878	-	0.0%
FY44	-	-	-	-	-	18,275,276	-	-	18,275,276	3.7%	18,275,276	-	0.0%
FY45	-	-	-	-	-	18,273,469	-	-	18,273,469	3.7%	18,273,469	-	0.0%
FY46	-	-	-	-	-	18,277,204	-	-	18,277,204	3.7%	18,277,204	-	0.0%
FY47	-	-	-	-	-	18,273,943	-	-	18,273,943	3.7%	18,273,943	-	0.0%
FY48	-	-	-	-	-	18,271,713	-	-	18,271,713	3.7%	18,271,713	-	0.0%
FY49	-	-	-	-	-	18,272,978	-	-	18,272,978	3.7%	18,272,978	-	0.0%
FY50	-	-	-	-	-	18,269,919	-	-	18,269,919	3.7%	18,269,919	-	0.0%
Total	**46,109,440**	**30,551,493**	**9,747,690**	**74,485,439**	**264,003,175**	**585,234,892**	**201,337,394**	**6,312,515**	**1,217,782,038**		**919,425,951**	**298,356,087**	
Offset	73.7%	100.0%	100.0%	28.3%	63.6%	100.0%	32.7%	71.4%					

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: 53.3% 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): 61.5% Lease Rental Payment from the Sacramento Kings or its affiliates and 38.5% Parking Fund.

(6) 2015 Refunding Revenue Bonds: 67.0% General Fund, 13.7% Water Fund, 9.3% Solid Waste Fund, 8.8% Parking Fund, 0.7% North Natomas Fund, 0.3% Fleet Fund, and 0.2% Culture and Leisure Fund.

(7) Total leases and loans: 59.9% Parking Fund, 28.6% General Fund, 9.9% Culture and Leisure Fund, and 1.6% RASA (Merged Downtown).

(8) Data based on Fiscal Year 2018-19 General Fund Revenue Forecast of $493,549,000

Source: City of Sacramento

GASB 68 ACCOUNTING VALUATION 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, 2017

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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

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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, 2017.

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 valuation report relies on liabilities and related validation work performed by the CalPERS Actuarial Office as part of the June 30, 2016 annual funding valuation for the Plan. The census data and benefit provisions underlying the liabilities were prepared as of June 30, 2016 and certified as part of the annual funding valuation by the CalPERS Actuarial Office. The June 30, 2016 liabilities, which were rolled forward to June 30, 2017 and used for this accounting valuation, 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.

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 Valuation Report for the measurement date June 30, 2017. Notes to the Agent Multiple-Employer Defined Benefit Pension Plan GASB 68 Accounting Valuation 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, 2016
Measurement Date	June 30, 2017
Measurement Period	June 30, 2016 to June 30, 2017

Pension Plan Fiduciary Net Position

The plan fiduciary net position disclosed in your GASB 68 accounting valuation report may differ from the plan assets reported in your funding actuarial valuation report due to several reasons. For example, for the accounting valuations, 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: 06/30/2016	**$1,111,621,950**	**$817,697,364**	**$293,924,586**
Changes Recognized for the Measurement Period:			
Service Cost	$27,795,727		$27,795,727
Interest on Total Pension Liability	84,334,185		84,334,185
Changes of Benefit Terms	0		0
Changes of Assumptions	75,969,675		75,969,675
Differences between Expected and Actual Experience	(837,981)		(837,981)
Net Plan to Plan Resource Movement		$73,647	(73,647)
Contributions – Employer		28,719,315	(28,719,315)
Contributions – Employees		12,190,145	(12,190,145)
Net Investment Income		91,481,199	(91,481,199)
Benefit Payments, including Refunds of Employee Contributions	(42,304,813)	(42,304,813)	0
Administrative Expense		(1,207,275)	1,207,275
Other Miscellaneous Income		0	0
Net Changes during 2016-17	**$144,956,793**	**$88,952,218**	**$56,004,575**
Balance at: 06/30/2017	**$1,256,578,743**	**$906,649,582**	**$349,929,161**

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)	$537,259,705	$349,929,161	$196,569,473

Pension Expense/(Income) for Measurement Period Ended June 30, 2017

Description	Amount
Service Cost	$27,795,727
Interest on Total Pension Liability	84,334,185
Changes of Benefit Terms	0
Recognized Changes of Assumptions	20,877,688
Recognized Differences between Expected and Actual Experience	(3,161,689)
Net Plan to Plan Resource Movement	(73,647)
Employee Contributions	(12,190,145)
Projected Earnings on Pension Plan Investments	(58,235,008)
Recognized Differences between Projected and Actual Earnings on Plan Investments	(44,720)
Administrative Expense	1,207,275
Other Miscellaneous Income	0
Total Pension Expense/(Income)	**$60,509,666**

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, 2017. 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	$48,837,648	$0
Differences between Expected and Actual Experience	0	(649,816)
Net Difference between Projected and Actual Earnings on Pension Plan Investments	11,678,732	0
Total	**$60,516,380**	**$(649,816)**

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**
2018	$26,676,913
2019	34,929,387
2020	4,909,503
2021	(6,649,239)
2022	0
Thereafter	0

Note: For employers with June 30th year-end, the fiscal year will be one year later than the measurement period. For example, the 2018 measurement period presented in the above table will be listed as year 2019 in the employer's fiscal year ending June 30, 2018 financial statements.

Expected Average Remaining Service Lifetime (EARSL)

The EARSL for the Plan for the measurement period ending June 30, 2017 is 2.8 years, which was obtained by dividing the total service years of 25,857 (the sum of remaining service lifetimes of the active employees) by 9,073 (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	2017	2016	2015	2014
TOTAL PENSION LIABILITY:				
Service Cost	$27,795,727	$23,374,624	$22,342,045	$23,109,946
Interest on Total Pension Liability	84,334,185	79,514,856	74,834,991	70,942,490
Changes of Benefit Terms	0	0	0	0
Changes of Assumptions	75,969,675	0	(20,152,867)	0
Difference between Expected and Actual Experience	(837,981)	(333,340)	(8,865,289)	0
Benefit Payments, Including Refunds of Employee Contributions	(42,304,813)	(37,980,223)	(34,390,309)	(30,239,753)
Net Change in Total Pension Liability	**$144,956,793**	**$64,575,917**	**$33,768,571**	**$63,812,683**
Total Pension Liability – Beginning	1,111,621,950	1,047,046,033	1,013,277,462	949,464,779
Total Pension Liability – Ending (a)	**$1,256,578,743**	**$1,111,621,950**	**$1,047,046,033**	**$1,013,277,462**
PLAN FIDUCIARY NET POSITION				
Contributions – Employer	$28,719,315	$25,962,718	$22,826,829	$21,613,131
Contributions – Employee	12,190,145	11,991,032	11,302,316	11,670,231
Net Investment Income	91,481,199	4,260,663	18,046,623	118,325,674
Benefit Payments, Including Refunds of Employee Contributions	(42,304,813)	(37,980,223)	(34,390,309)	(30,239,753)
Net Plan to Plan Resource Movement	73,647	530,976	(3,066,289)	0
Administrative Expense	(1,207,275)	(495,742)	(921,940)	0
Other Miscellaneous Income	0	0	0	0
Net Change in Fiduciary Net Position	**$88,952,218**	**$4,269,424**	**$13,797,230**	**$121,369,283**
Plan Fiduciary Net Position – Beginning	$817,697,364	$813,427,940	$799,630,710	$678,261,427
Plan Fiduciary Net Position – Ending (b)	906,649,582	817,697,364	813,427,940	799,630,710
Plan Net Pension Liability/(Asset) – (a)-(b)	**$349,929,161**	**$293,924,586**	**$233,618,093**	**$213,646,752**
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	**72.15%**	**73.56%**	**77.69%**	**78.92%**
Covered Payroll	$176,795,109	$166,402,958	$157,449,221	$156,032,311
Plan Net Pension Liability/(Asset) as a Percentage of Covered Payroll	**197.93%**	**176.63%**	**148.38%**	**136.92%**

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, 2016 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 2017, the accounting discount rate reduced from 7.65 percent to 7.15 percent. In 2016, there were no changes. In 2015, amounts reported reflect an adjustment of the discount rate from 7.5 percent (net of administrative expense) to 7.65 percent (without a reduction for pension plan administrative expense.) In 2014, amounts reported were based on the 7.5 percent discount rate.

Schedule of Plan Contributions for the Fiscal Years Ended June 30[1]

Employer Fiscal Year End	**2017**	**2016**	**2015**	**2014**
Actuarially Determined Contribution[2]	$28,719,315	$25,962,718	$22,826,829	$21,613,131
Contributions in Relation to the Actuarially Determined Contribution[2]	(28,719,315)	(25,962,718)	(22,826,829)	(21,613,131)
Contribution Deficiency (Excess)	$0	$0	$0	$0
Covered Payroll[3]	$176,795,109	$166,402,958	$157,449,221	$156,032,311
Contributions as a Percentage of Covered Payroll[3]	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 3.00 percent payroll assumption.

Notes to Schedule of Plan Contributions:

The actuarial methods and assumptions used to set the actuarially determined contributions for Fiscal Year 2016-17 were derived from the June 30, 2014 funding valuation report.

Actuarial Cost Method	Entry Age Normal
Amortization Method/Period	For details, see June 30, 2014 Funding Valuation Report.
Asset Valuation Method	Market Value of Assets. For details, see June 30, 2014 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

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- **DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES ARISING FROM CHANGES OF ASSUMPTIONS**
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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)**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**Thereafter**
2014	$0	0	$0	$0	$0	$0	$0	$0	$0
2015	(20,152,867)	0.9	(6,254,339)	0	0	0	0	0	0
2016	0	0	0	0	0	0	0	0	0
2017	75,969,675	2.8	27,132,027	27,132,027	21,705,621	0	0	0	0
Net Increase (Decrease) in Pension Expense			**$20,877,688**	**$27,132,027**	**$21,705,621**	**$0**	**$0**	**$0**	**$0**

Deferred Outflows of Resources and Deferred Inflows of Resources arising from Changes of Assumptions

				Balances at June 30, 2017	
Measurement Date	**Increase in Total Pension Liability (a)**	**Decrease in Total Pension Liability (b)**	**Amounts Recognized in Pension Expense through June 30, 2017 (c)**	**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	27,132,027	48,837,648	0
				$48,837,648	**$0**

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)**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**Thereafter**
2014	$0	0	$0	$0	$0	$0	$0	$0	$0
2015	(8,865,289)	0.9	(2,751,297)	0	0	0	0	0	0
2016	(333,340)	2.0	(111,113)	(111,114)	0	0	0	0	0
2017	(837,981)	2.8	(299,279)	(299,279)	(239,423)	0	0	0	0
Net Increase (Decrease) in Pension Expense			**$(3,161,689)**	**$(410,393)**	**$(239,423)**	**$0**	**$0**	**$0**	**$0**

Deferred Outflows of Resources and Deferred Inflows of Resources arising from Differences between Expected and Actual Experience

				Balances at June 30, 2017	
Measurement Date	**Experience Losses (a)**	**Experience Gains (b)**	**Amounts Recognized in Pension Expense through June 30, 2017 (c)**	**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)	(222,226)	0	(111,114)
2017	0	(837,981)	(299,279)	0	(538,702)
				$0	**$(649,816)**

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)**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**Thereafter**
2014	$(67,539,546)	2.0	$(13,507,909)	$(13,507,910)	$0	$0	$0	$0	$0
2015	42,768,440	3.0	8,553,688	8,553,688	8,553,688	0	0	0	0
2016	57,793,697	4.0	11,558,739	11,558,739	11,558,739	11,558,741	0	0	0
2017	(33,246,191)	5.0	(6,649,238)	(6,649,238)	(6,649,238)	(6,649,238)	(6,649,239)	0	0
Net Increase (Decrease) in Pension Expense			**$(44,720)**	**$(44,721)**	**$13,463,189**	**$4,909,503**	**$(6,649,239)**	**$0**	**$0**

Deferred Outflows of Resources and Deferred Inflows of Resources arising from Differences between Projected and Actual Earnings on Pension Plan Investments

				Balances at June 30, 2017	
Measurement Date	**Investment Earnings less than Projected (a)**	**Investment Earnings greater than Projected (b)**	**Amounts Recognized in Pension Expense through June 30, 2017 (c)**	**Deferred Outflows of Resources (d) = (a) – (c)**	**Deferred Inflows of Resources (e) = (b) – (c)**
2014	$0	$(67,539,546)	$(54,031,636)	$0	$(13,507,910)
2015	42,768,440	0	25,661,064	17,107,376	0
2016	57,793,697	0	23,117,478	34,676,219	0
2017	0	(33,246,191)	(6,649,238)	0	(26,596,953)
				$51,783,595	**$(40,104,863)**

Net Deferred Outflows/(Inflows) of Resources (d) + (e)
$11,678,732

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						
	2017	**2018**	**2019**	**2020**	**2021**	**2022**	**Thereafter**
Changes of Assumptions	$20,877,688	$27,132,027	$21,705,621	$0	$0	$0	$0
Differences between Expected and Actual Experience	(3,161,689)	(410,393)	(239,423)	0	0	0	0
Net Differences between Projected and Actual Earnings on Pension Plan Investments	(44,720)	(44,721)	13,463,189	4,909,503	(6,649,239)	0	0
Grand Total	**$17,671,279**	**$26,676,913**	**$34,929,387**	**$4,909,503**	**$(6,649,239)**	**$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	$1,111,621,950	100%	7.15%	$79,480,969
Changes of Benefit Terms	0	100%	7.15%	0
Changes of Assumptions	75,969,675	100%	7.15%	5,431,832
Difference between Expected and Actual Experience	(837,981)	100%	7.15%	(59,916)
Service Cost	27,795,727	50%	7.15%	993,697
Benefit Payments, including Refunds of Employee Contributions	(42,304,813)	50%	7.15%	(1,512,397)
Total Interest on Total Pension Liability				**$84,334,185**

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]	$815,740,116	100%	7.15%	$58,325,418
Net Plan to Plan Resource Movement	73,647	50%	7.15%	2,633
Employer Contributions	28,719,315	50%	7.15%	1,026,716
Employee Contributions	12,190,145	50%	7.15%	435,798
Benefit Payments, including Refunds of Employee Contributions	(42,304,813)	50%	7.15%	(1,512,397)
Administrative Expense	(1,207,275)	50%	7.15%	(43,160)
Other Miscellaneous Income	0	50%	7.15%	0
Total Projected Earnings				**$58,235,008**

[1] Contribution receivables for employee service buybacks, totaling $1,957,248 as of June 30, 2016, were excluded for purposes of calculating projected earnings on pension plan investments.

GASB 68 ACCOUNTING VALUATION 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, 2017

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APPENDIX B – INTEREST AND TOTAL PROJECTED EARNINGS

Interest on Total Pension Liability and Total Projected Earnings B-1

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, 2017.

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 valuation report relies on liabilities and related validation work performed by the CalPERS Actuarial Office as part of the June 30, 2016 annual funding valuation for the Plan. The census data and benefit provisions underlying the liabilities were prepared as of June 30, 2016 and certified as part of the annual funding valuation by the CalPERS Actuarial Office. The June 30, 2016 liabilities, which were rolled forward to June 30, 2017 and used for this accounting valuation, 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.

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 Valuation Report for the measurement date June 30, 2017. Notes to the Agent Multiple-Employer Defined Benefit Pension Plan GASB 68 Accounting Valuation 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, 2016
Measurement Date	June 30, 2017
Measurement Period	June 30, 2016 to June 30, 2017

Pension Plan Fiduciary Net Position

The plan fiduciary net position disclosed in your GASB 68 accounting valuation report may differ from the plan assets reported in your funding actuarial valuation report due to several reasons. For example, for the accounting valuations, 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: 06/30/2016	**$1,650,594,342**	**$1,128,141,762**	**$522,452,580**
Changes Recognized for the Measurement Period:			
Service Cost	$37,372,520		$37,372,520
Interest on Total Pension Liability	123,131,887		123,131,887
Changes of Benefit Terms	0		0
Changes of Assumptions	107,046,066		107,046,066
Differences between Expected and Actual Experience	(15,086,475)		(15,086,475)
Net Plan to Plan Resource Movement		$(73,647)	73,647
Contributions – Employer		40,608,891	(40,608,891)
Contributions – Employees		18,980,493	(18,980,493)
Net Investment Income		125,585,855	(125,585,855)
Benefit Payments, including Refunds of Employee Contributions	(78,231,814)	(78,231,814)	0
Administrative Expense		(1,665,625)	1,665,625
Other Miscellaneous Income		0	0
Net Changes during 2016-17	**$174,232,184**	**$105,204,153**	**$69,028,031**
Balance at: 06/30/2017	**$1,824,826,526**	**$1,233,345,915**	**$591,480,611**

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)	$853,189,632	$591,480,611	$377,785,078

Pension Expense/(Income) for Measurement Period Ended June 30, 2017

Description	Amount
Service Cost	$37,372,520
Interest on Total Pension Liability	123,131,887
Changes of Benefit Terms	0
Recognized Changes of Assumptions	14,800,343
Recognized Differences between Expected and Actual Experience	(189,531)
Net Plan to Plan Resource Movement	73,647
Employee Contributions	(18,980,493)
Projected Earnings on Pension Plan Investments	(79,830,040)
Recognized Differences between Projected and Actual Earnings on Plan Investments	(252,530)
Administrative Expense	1,665,625
Other Miscellaneous Income	0
Total Pension Expense/(Income)	**$77,791,428**

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, 2017. 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	$86,848,695	$(12,413,165)
Differences between Expected and Actual Experience	8,860,085	(12,497,116)
Net Difference between Projected and Actual Earnings on Pension Plan Investments	17,154,157	0
Total	**$112,862,937**	**$(24,910,281)**

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**
2018	$14,358,281
2019	33,995,934
2020	25,639,723
2021	8,753,457
2022	5,205,261
Thereafter	0

Note: For employers with June 30th year-end, the fiscal year will be one year later than the measurement period. For example, the 2018 measurement period presented in the above table will be listed as year 2019 in the employer's fiscal year ending June 30, 2018 financial statements.

Expected Average Remaining Service Lifetime (EARSL)

The EARSL for the Plan for the measurement period ending June 30, 2017 is 5.3 years, which was obtained by dividing the total service years of 14,586 (the sum of remaining service lifetimes of the active employees) by 2,777 (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	2017	2016	2015	2014
TOTAL PENSION LIABILITY:				
Service Cost	$37,372,520	$31,672,063	$29,653,042	$29,538,887
Interest on Total Pension Liability	123,131,887	118,821,553	112,331,793	107,188,618
Changes of Benefit Terms	0	0	0	0
Changes of Assumptions	107,046,066	0	(28,604,249)	0
Difference between Expected and Actual Experience	(15,086,475)	14,397,639	(592,555)	0
Benefit Payments, Including Refunds of Employee Contributions	(78,231,814)	(74,572,323)	(70,544,699)	(66,215,114)
Net Change in Total Pension Liability	**$174,232,184**	**$90,318,932**	**$42,243,332**	**$70,512,391**
Total Pension Liability – Beginning	1,650,594,342	1,560,275,410	1,518,032,078	1,447,519,687
Total Pension Liability – Ending (a)	**$1,824,826,526**	**$1,650,594,342**	**$1,560,275,410**	**$1,518,032,078**
PLAN FIDUCIARY NET POSITION				
Contributions – Employer	$40,608,891	$36,000,897	$30,798,271	$27,934,662
Contributions – Employee	18,980,493	18,465,310	15,564,873	16,094,362
Net Investment Income	125,585,855	4,971,102	25,341,704	171,794,710
Benefit Payments, Including Refunds of Employee Contributions	(78,231,814)	(74,572,323)	(70,544,699)	(66,215,114)
Net Plan to Plan Resource Movement	(73,647)	(340)	533	0
Administrative Expense	(1,665,625)	(697,193)	(1,287,544)	0
Other Miscellaneous Income	0	0	0	0
Net Change in Fiduciary Net Position	**$105,204,153**	**$(15,832,547)**	**$(126,862)**	**$149,608,620**
Plan Fiduciary Net Position – Beginning	$1,128,141,762	$1,143,974,309	$1,144,101,171	$994,492,551
Plan Fiduciary Net Position – Ending (b)	1,233,345,915	1,128,141,762	1,143,974,309	1,144,101,171
Plan Net Pension Liability/(Asset) – (a)-(b)	**$591,480,611**	**$522,452,580**	**$416,301,101**	**$373,930,907**
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	**67.59%**	**68.35%**	**73.32%**	**75.37%**
Covered Payroll	$126,437,920	$120,120,082	$112,067,431	$107,176,397
Plan Net Pension Liability/(Asset) as a Percentage of Covered Payroll	**467.80%**	**434.94%**	**371.47%**	**348.89%**

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, 2016 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 2017, the accounting discount rate reduced from 7.65 percent to 7.15 percent. In 2016, there were no changes. In 2015, amounts reported reflect an adjustment of the discount rate from 7.5 percent (net of administrative expense) to 7.65 percent (without a reduction for pension plan administrative expense.) In 2014, amounts reported were based on the 7.5 percent discount rate.

Schedule of Plan Contributions for the Fiscal Years Ended June 30[1]

Employer Fiscal Year End	**2017**	**2016**	**2015**	**2014**
Actuarially Determined Contribution[2]	$40,608,891	$36,000,897	$30,798,271	$27,934,662
Contributions in Relation to the Actuarially Determined Contribution[2]	(40,608,891)	(36,000,897)	(30,798,271)	(27,934,662)
Contribution Deficiency (Excess)	$0	$0	$0	$0
Covered Payroll[3]	$126,437,920	$120,120,082	$112,067,431	$107,176,397
Contributions as a Percentage of Covered Payroll[3]	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 3.00 percent payroll assumption.

Notes to Schedule of Plan Contributions:

The actuarial methods and assumptions used to set the actuarially determined contributions for Fiscal Year 2016-17 were derived from the June 30, 2014 funding valuation report.

Actuarial Cost Method	Entry Age Normal
Amortization Method/Period	For details, see June 30, 2014 Funding Valuation Report.
Asset Valuation Method	Market Value of Assets. For details, see June 30, 2014 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)**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**Thereafter**
2014	$0	0	$0	$0	$0	$0	$0	$0	$0
2015	(28,604,249)	3.3	(5,397,028)	(5,397,028)	(5,397,028)	(1,619,109)	0	0	0
2016	0	0	0	0	0	0	0	0	0
2017	107,046,066	5.3	20,197,371	20,197,371	20,197,371	20,197,371	20,197,371	6,059,211	0
Net Increase (Decrease) in Pension Expense			**$14,800,343**	**$14,800,343**	**$14,800,343**	**$18,578,262**	**$20,197,371**	**$6,059,211**	**$0**

Deferred Outflows of Resources and Deferred Inflows of Resources arising from Changes of Assumptions

				Balances at June 30, 2017	
Measurement Date	**Increase in Total Pension Liability (a)**	**Decrease in Total Pension Liability (b)**	**Amounts Recognized in Pension Expense through June 30, 2017 (c)**	**Deferred Outflows of Resources (a) – (c)**	**Deferred Inflows of Resources (b) – (c)**
2014	$0	$0	$0	$0	$0
2015	0	(28,604,249)	(16,191,084)	0	(12,413,165)
2016	0	0	0	0	0
2017	107,046,066	0	20,197,371	86,848,695	0
				$86,848,695	**$(12,413,165)**

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)**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**Thereafter**
2014	$0	0	$0	$0	$0	$0	$0	$0	$0
2015	(592,555)	3.3	(111,803)	(111,803)	(111,803)	(33,540)	0	0	0
2016	14,397,639	4.2	2,768,777	2,768,777	2,768,777	2,768,777	553,754	0	0
2017	(15,086,475)	5.3	(2,846,505)	(2,846,505)	(2,846,505)	(2,846,505)	(2,846,505)	(853,950)	0
Net Increase (Decrease) in Pension Expense			**$(189,531)**	**$(189,531)**	**$(189,531)**	**$(111,268)**	**$(2,292,751)**	**$(853,950)**	**$0**

Deferred Outflows of Resources and Deferred Inflows of Resources arising from Differences between Expected and Actual Experience

				Balances at June 30, 2017	
Measurement Date	**Experience Losses (a)**	**Experience Gains (b)**	**Amounts Recognized in Pension Expense through June 30, 2017 (c)**	**Deferred Outflows of Resources (a) – (c)**	**Deferred Inflows of Resources (b) – (c)**
2014	$0	$0	$0	$0	$0
2015	0	(592,555)	(335,409)	0	(257,146)
2016	14,397,639	0	5,537,554	8,860,085	0
2017	0	(15,086,475)	(2,846,505)	0	(12,239,970)
				$8,860,085	**$(12,497,116)**

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)**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**Thereafter**
2014	$(98,188,251)	2.0	$(19,637,650)	$(19,637,651)	$0	$0	$0	$0	$0
2015	61,061,962	3.0	12,212,392	12,212,392	12,212,394	0	0	0	0
2016	81,619,456	4.0	16,323,891	16,323,891	16,323,891	16,323,892	0	0	0
2017	(45,755,815)	5.0	(9,151,163)	(9,151,163)	(9,151,163)	(9,151,163)	(9,151,163)	0	0
Net Increase (Decrease) in Pension Expense			**$(252,530)**	**$(252,531)**	**$19,385,122**	**$7,172,729**	**$(9,151,163)**	**$0**	**$0**

Deferred Outflows of Resources and Deferred Inflows of Resources arising from Differences between Projected and Actual Earnings on Pension Plan Investments

				Balances at June 30, 2017	
Measurement Date	**Investment Earnings less than Projected (a)**	**Investment Earnings greater than Projected (b)**	**Amounts Recognized in Pension Expense through June 30, 2017 (c)**	**Deferred Outflows of Resources (d) = (a) – (c)**	**Deferred Inflows of Resources (e) = (b) – (c)**
2014	$0	$(98,188,251)	$(78,550,600)	$0	$(19,637,651)
2015	61,061,962	0	36,637,176	24,424,786	0
2016	81,619,456	0	32,647,782	48,971,674	0
2017	0	(45,755,815)	(9,151,163)	0	(36,604,652)
				$73,396,460	**$(56,242,303)**

Net Deferred Outflows/(Inflows) of Resources (d) + (e)
$17,154,157

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						
	2017	**2018**	**2019**	**2020**	**2021**	**2022**	**Thereafter**
Changes of Assumptions	$14,800,343	$14,800,343	$14,800,343	$18,578,262	$20,197,371	$6,059,211	$0
Differences between Expected and Actual Experience	(189,531)	(189,531)	(189,531)	(111,268)	(2,292,751)	(853,950)	0
Net Differences between Projected and Actual Earnings on Pension Plan Investments	(252,530)	(252,531)	19,385,122	7,172,729	(9,151,163)	0	0
Grand Total	**$14,358,282**	**$14,358,281**	**$33,995,934**	**$25,639,723**	**$8,753,457**	**$5,205,261**	**$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	$1,650,594,342	100%	7.15%	$118,017,495
Changes of Benefit Terms	0	100%	7.15%	0
Changes of Assumptions	107,046,066	100%	7.15%	7,653,794
Difference between Expected and Actual Experience	(15,086,475)	100%	7.15%	(1,078,683)
Service Cost	37,372,520	50%	7.15%	1,336,068
Benefit Payments, including Refunds of Employee Contributions	(78,231,814)	50%	7.15%	(2,796,787)
Total Interest on Total Pension Liability				**$123,131,887**

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]	$1,126,694,902	100%	7.15%	$80,558,685
Net Plan to Plan Resource Movement	(73,647)	50%	7.15%	(2,633)
Employer Contributions	40,608,891	50%	7.15%	1,451,768
Employee Contributions	18,980,493	50%	7.15%	678,553
Benefit Payments, including Refunds of Employee Contributions	(78,231,814)	50%	7.15%	(2,796,787)
Administrative Expense	(1,665,625)	50%	7.15%	(59,546)
Other Miscellaneous Income	0	50%	7.15%	0
Total Projected Earnings				**$79,830,040**

[1] Contribution receivables for employee service buybacks, totaling $1,446,860 as of June 30, 2016, were excluded for purposes of calculating projected earnings on pension plan investments.

City of SACRAMENTO

BARTEL ASSOCIATES, LLC

City of Sacramento

Sacramento City Employees' Retirement System

June 30, 2018
GASBS 67 & 68 Reporting

November 21, 2018

BARTEL ASSOCIATES, LLC

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,

Mary Elizabeth Redding, FSA, MAAA, EA
Vice President

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

Katherine Moore, ASA, MAAA
Associate Actuary

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SECTION 1
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)	286,609	288,509
■ 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 unchanged[4]. 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.

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

Schedule of Changes in Net Pension Liability & Related Ratios[5]
(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	(31,583)
Net change in Total Pension Liability	(12,209)
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	0
Net change in Fiduciary Net Position	(1,900)
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 Contribution[6]
(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	■ 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	■ 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.

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]	0	0	0
■ 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.

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

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.

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	1,027
■ 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	0
■ 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	0
■ 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	288,509	286,609	(1,900)
■ 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	N/A	8,645	8,645
■ Net impact on balance sheet	46,532	48,868	2,336
Check:			
■ Pension expense for year			$2,336

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.

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.

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.

City of SACRAMENTO

BARTEL ASSOCIATES, LLC

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
■ Eligibility	■ Retire directly from the City: • Age 50 & 10 years City service, or • 30 years City service, or • Industrial disability, or • Death in line of duty	
■ Benefit for Hires before Plan Change Date Medical, Dental & Vision	■ 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 ■ Service % 10 50% 15 75% 20+ 100% ID&D 100%	■ Retiree only - $300/mo ■ Retiree + Dependents - $365/mo ■ Service % 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
■ Benefit for Hires after Plan Change Date[1] Medical, Dental & Vision	■ Pre-Medicare - $774/mo ■ Post-Medicare - $387/mo ■ Service % 10 50% 15 75% 20+ 100% ID&D 100%	■ No City cash contribution but allowed to participate in City health plans
■ Pre 1/1/91 Deferred Retirement	■ None	■ Eligibility: Age 50 & 10 years ■ Benefit: Pre-plan change benefit ■ Service % 10 50% 20+ 100%
■ Surviving Spouse Benefit	■ 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.

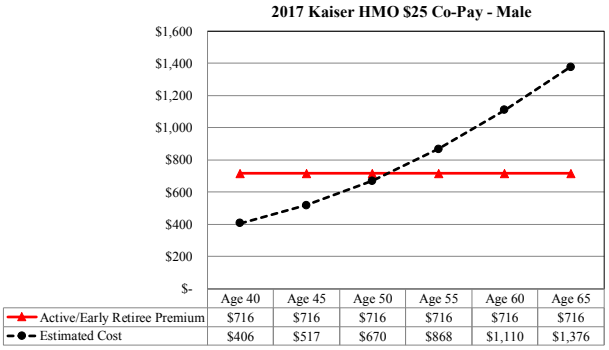
BENEFIT SUMMARY

	Fire	Police & Miscellaneous
■ Other OPEB	■ No City contribution for life insurance or Medicare Part B premiums	
■ Fire Department Unit Trust	■ 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)		

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

BENEFIT SUMMARY

	Fire	Police & Miscellaneous
■ Implied Subsidy	■ Non-Medicare retirees pay blended rates instead of actual cost ■ Active employee premiums subsidize non-Medicare retiree cost	



- ■ GASB OPEB includes active "implied subsidy" with retiree cost
- ■ Medical:
  - Value to age 65 for Medicare eligible retirees
  - Value for life for non-Medicare eligible retirees
- ■ Dental & vision: no implied subsidy valued

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

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

ACTUARIAL ASSUMPTIONS HIGHLIGHTS

	June 30, 2015 Valuation	June 30, 2017 Valuation
■ Valuation Date	■ June 30, 2015 ■ Fiscal Years 2016/17 & 2017/18	■ June 30, 2017 ■ Fiscal Years 2018/19 & 2019/20
■ Discount Rate	■ 4.50% – Pre-fund with one time resources ■ CERBT asset allocation strategy #1	■ 3.95% ■ Based on closed group crossover analysis following GASBS 75 methodology: • 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	■ 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	■ 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
■ Participation at Retirement	■ Based on current retiree participation, varies by % of cash benefit earned at retirement:	■ Based on retirements during fiscal years 2015 to 2017, varies by % of cash benefit earned at retirement:

% of Benefit Earned	Participation Assumption
0%	10%
50%	40%
75%	55%
100%	75%

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%

M = Medical, D = Dental, V = Vision

ACTUARIAL ASSUMPTIONS HIGHLIGHTS

■ Medical Trend

June 30, 2015 Valuation

Year	Increase from Prior Year: Non-Medicare	Increase from Prior Year: Medicare
2015	Actual 2015 Premiums	
2016	Actual 2016 Premiums	
2017	7.0%	7.2%
2018	6.5%	6.7%
2019	6.0%	6.1%
2020	5.5%	5.6%
2021+	5.0%	5.0%

June 30, 2017 Valuation

Year	Increase from Prior Year: Non-Medicare	Increase from Prior Year: Medicare
2017	Actual 2017 Premiums	
2018	Actual 2018 Premiums	
2019	7.50%	6.50%
2020	7.50%	6.50%
2021	7.25%	6.30%
2022	7.00%	6.10%
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	■ Fire hired <1/14/15: • 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	■ Fire hired <1/14/15: • 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	■ 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: • 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: • 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	

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	825	22	847	1,947	94	2,041
■ 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.

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]	1,730	105	1,835
■ 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%.

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]	702	21	723	1,375	64	1,439
■ **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 AVA**[9]	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.

Actuarial Value of Plan Assets

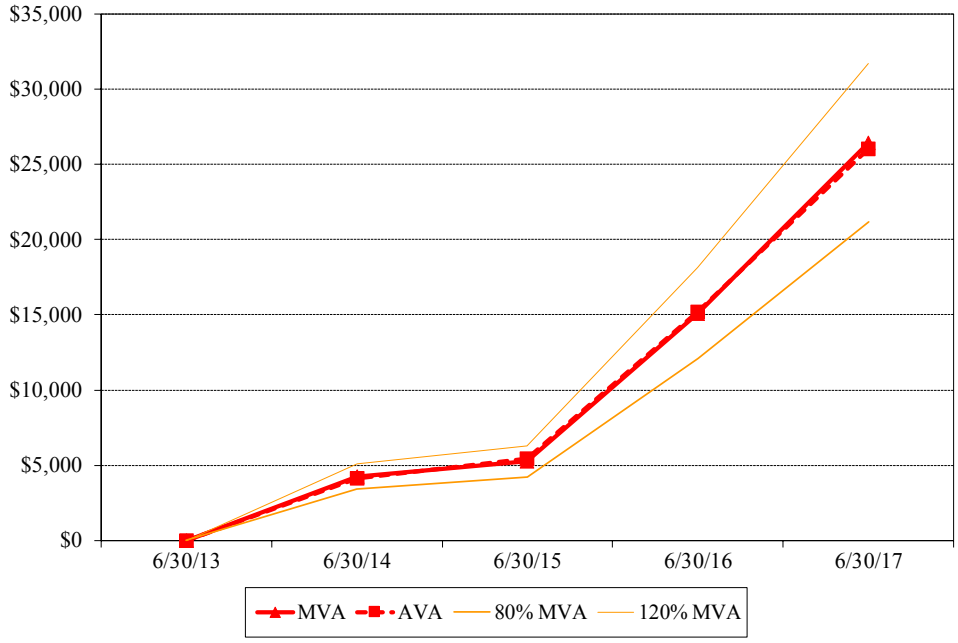
(Amounts in 000's)

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]	1,705	103	1,808
■ **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 AVA**[11]	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%

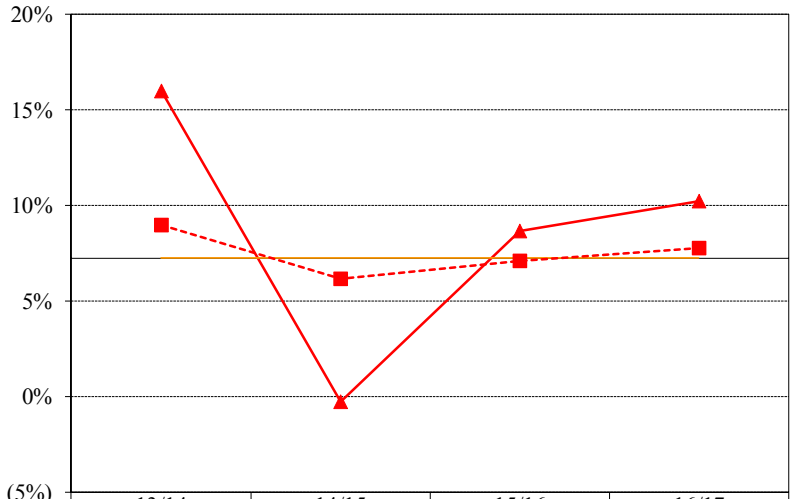
[10] Expected investment return of 6.75%.
[11] Expected AVA plus 20% of the difference between the MVA and expected AVA.

Historical and Projected Value of Plan Assets

(Amounts in $000's)



Annualized Asset Returns



	13/14	14/15	15/16	16/17
MVA	16.0%	-0.3%	8.7%	10.2%
Expected Return	7.25%	7.25%	7.25%	7.25%
AVA	9.0%	6.2%	7.1%	7.8%

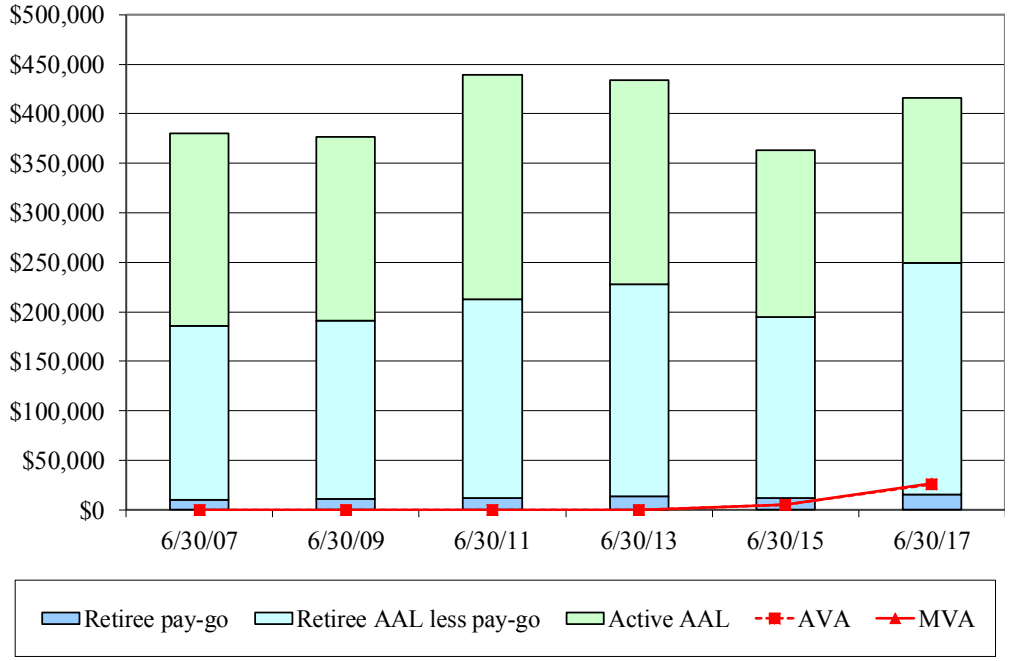
Actuarial Obligations

(Amounts in 000's)

	6/30/15 Valuation		6/30/17 Valuation	
Discount Rate	**4.50%**		**3.95%**	
	6/30/15	**Projected to 6/30/16**	**6/30/17**	**Projected to 6/30/18**
■ **Present Value of Benefits**				
• Actives	$296,447		$290,592	
• Retirees	194,312		248,926	
• Total	490,759		539,518	
■ **Actuarial Accrued Liability**				
• Actives	168,512		167,031	
• Retirees	194,312		248,926	
• Total	362,824	$378,534	415,957	$428,858
■ **Actuarial Value of Assets**	(5,461)	(15,116)	(26,041)	(29,432)
■ **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

Historical Actuarial Accrued Liability

(Amounts in 000's)



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

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Actuarially Determined Contribution (ADC)

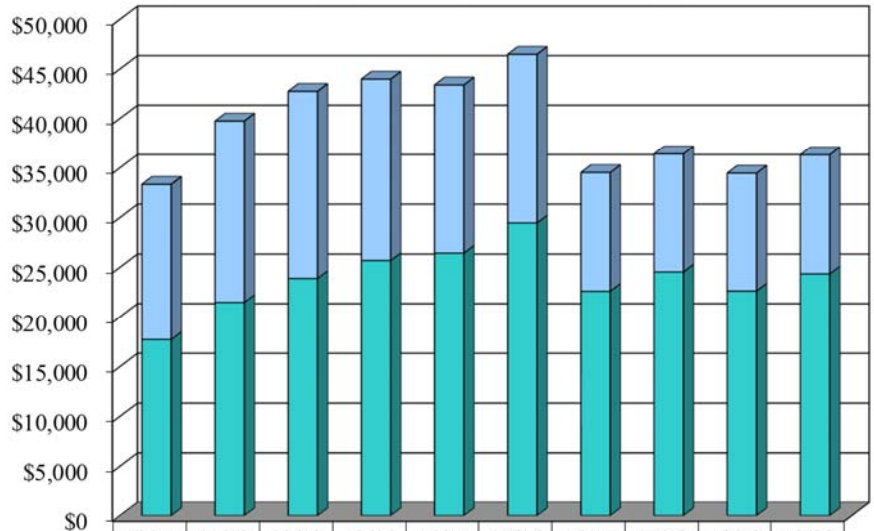
(Amounts in 000's)

	6/30/15 Valuation		6/30/17 Valuation	
	2016/17	2017/18	2018/19	2019/20
■ **ADC - $**				
• Normal Cost	$11,921	$11,860	$ 11,834	$ 11,966
• UAAL Amortization	22,594	24,533	22,620	24,344
• ADC (End of Year)	34,515	36,393	34,454	36,310
■ **Projected Payroll**	279,474	288,557	303,345	312,446
■ **ADC - % Total Payroll**				
• Normal Cost	4.3%	4.1%	3.9%	3.8%
• UAAL Amortization	8.1%	8.5%	7.5%	7.8%
• ADC	12.4%	12.6%	11.4%	11.6%

RSI 2.2

Historical Actuarially Determined Contributions

(Amounts in 000's)



	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Normal Cost	15,606	18,272	18,866	18,284	16,956	17,024	11,921	11,860	11,834	11,966
Amortization	17,729	21,468	23,878	25,690	26,427	29,456	22,594	24,533	22,620	24,344
ARC/ADC	33,335	39,740	42,744	43,974	43,383	46,480	34,515	36,393	34,454	36,310

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	(9,971)	(9,011)	(11,486)	(15,343)
• 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	(4,000)	(1,000)	(9,037)	(9,313)
• Total Contribution	(17,473)	(14,524)	(21,400)	(21,878)
■ **NOO End of Year**	154,197	180,984	202,722	209,138
■ **NOO Amort. Factor**	13.2122	17.1121	15.7575	13.2127

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.

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	167,448	81,478	248,926
• Total	347,376	192,142	539,518
■ **Actuarial Accrued Liability**			
• Actives	104,240	62,791	167,031
• Retirees	167,448	81,478	248,926
• Total	271,688	144,269	415,957
■ **Actuarial Value of Assets**[13]	(17,009)	(9,032)	(26,041)
■ **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.

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	14,712	7,908	22,620
• 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	4.9%	2.6%	7.5%
• Total	7.4%	4.0%	11.4%

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	93,747	47,275	107,904	248,926
• Total	186,627	100,422	252,469	539,518
■ **Actuarial Accrued Liability**				
• Actives	63,100	28,163	75,768	167,031
• Retirees	93,747	47,275	107,904	248,926
• Total	156,847	75,438	183,672	415,957
■ **Actuarial Value of Assets**[14]	(9,354)	(4,499)	(12,188)	(26,041)
■ **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.

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	8,434	4,129	10,057	22,620
• 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	5.0%	5.7%	16.1%	7.5%
• Total	7.0%	8.8%	26.0%	11.4%

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	9,077	4,444	10,823	24,344
• 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	5.2%	6.0%	16.8%	7.8%
• Total	7.2%	9.0%	26.5%	11.6%

Schedule of Funding Progress

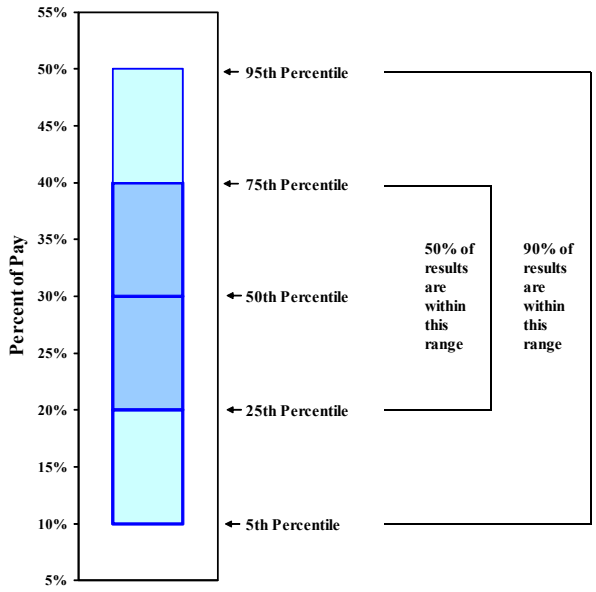
(Amounts in 000's)

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.

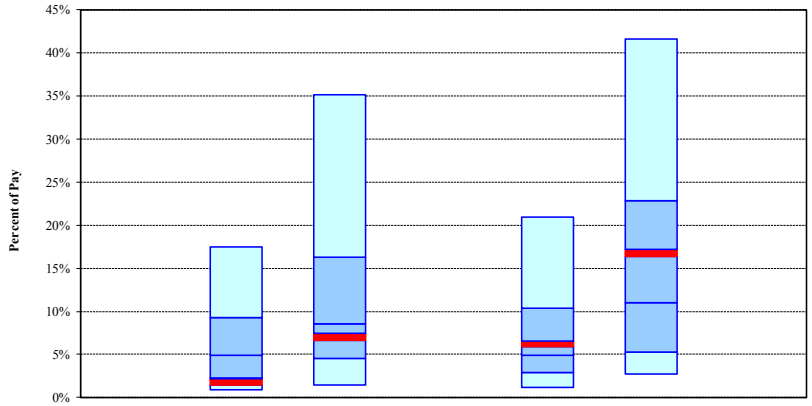
BARTEL ASSOCIATES OPEB DATABASE

Bartel Associates OPEB Database
Sample Percentile Graph



BARTEL ASSOCIATES OPEB DATABASE

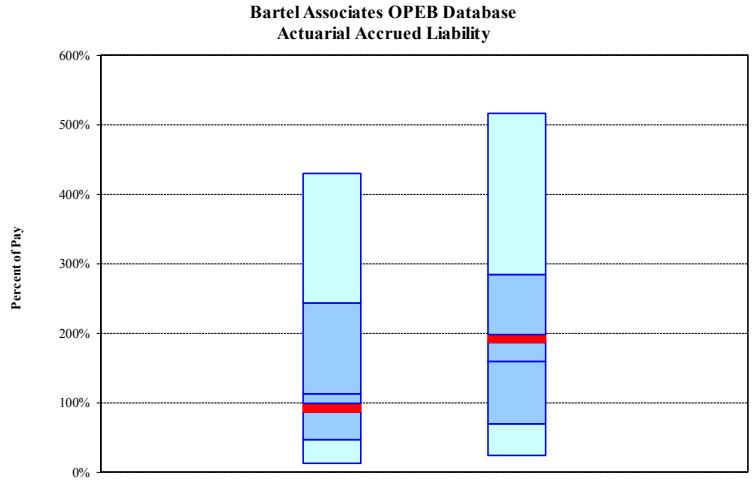
Bartel Associates OPEB Database
Normal Cost & Annual Required Contribution



	Miscellaneous		Safety	
	NC	ARC	NC	ARC
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



	Miscellaneous	Safety
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, FSA, EA, MAAA, FCA
Vice President
Bartel Associates, LLC
March 9, 2018

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

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Actuarial Assumptions	E-32
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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

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

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

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

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

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

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

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

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%

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

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

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

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

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

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

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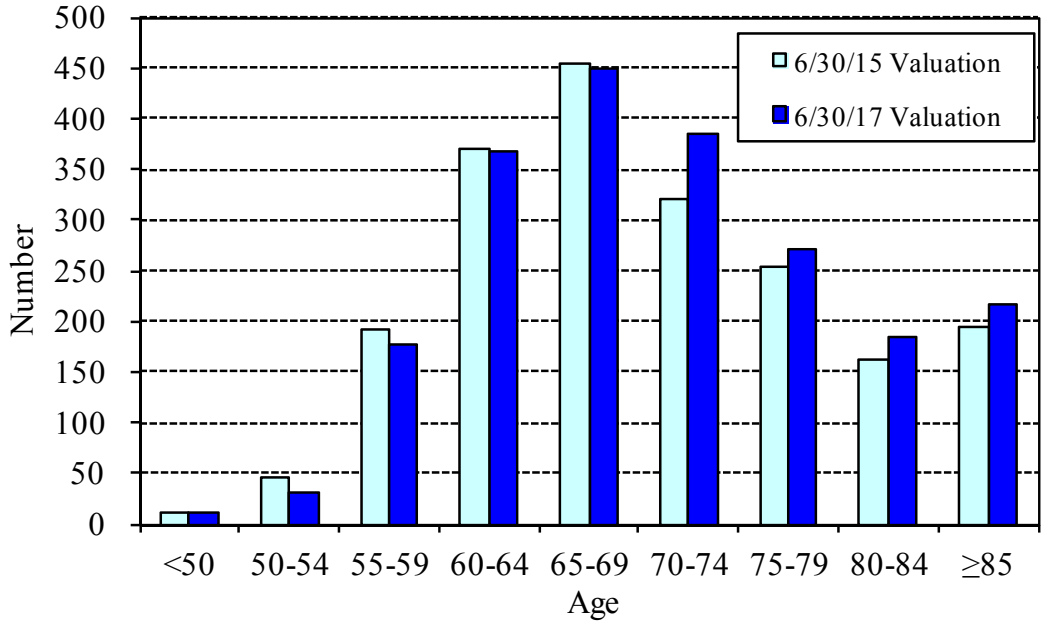
Retiree Medical Plan Coverage by Age

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

Retiree Age Distribution

Miscellaneous



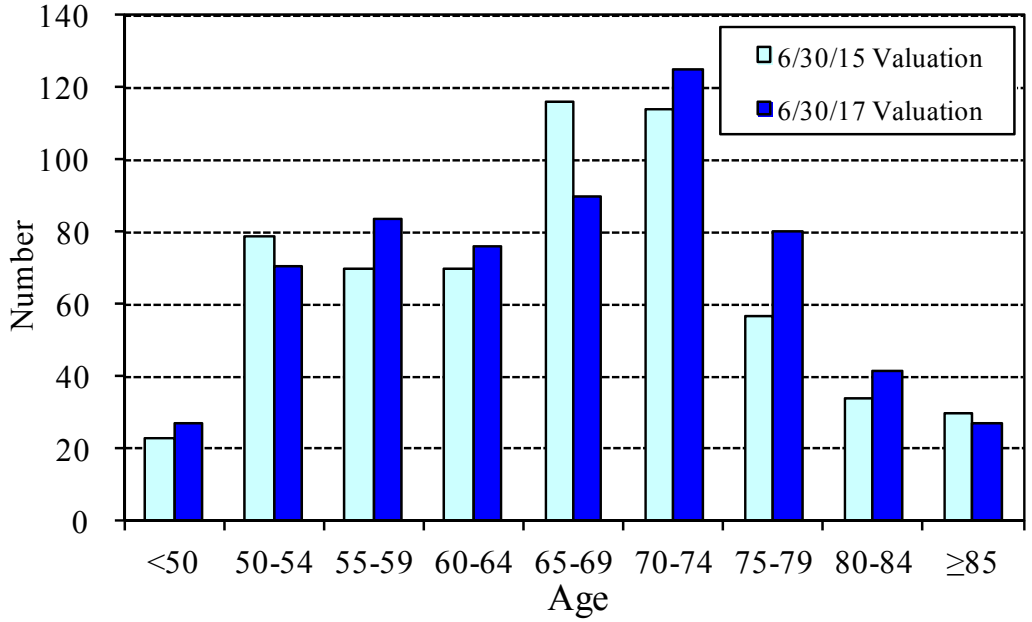
Retiree Medical Plan Coverage by Age

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

Retiree Age Distribution

Police



Retiree Medical Plan Coverage by Age

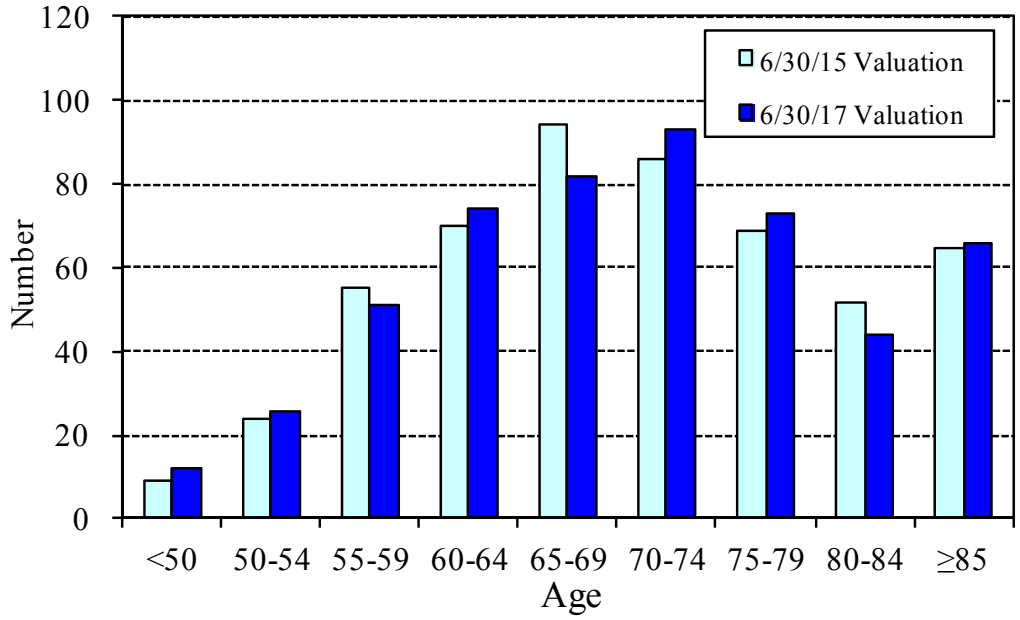
June 30, 2017

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

Retiree Age Distribution

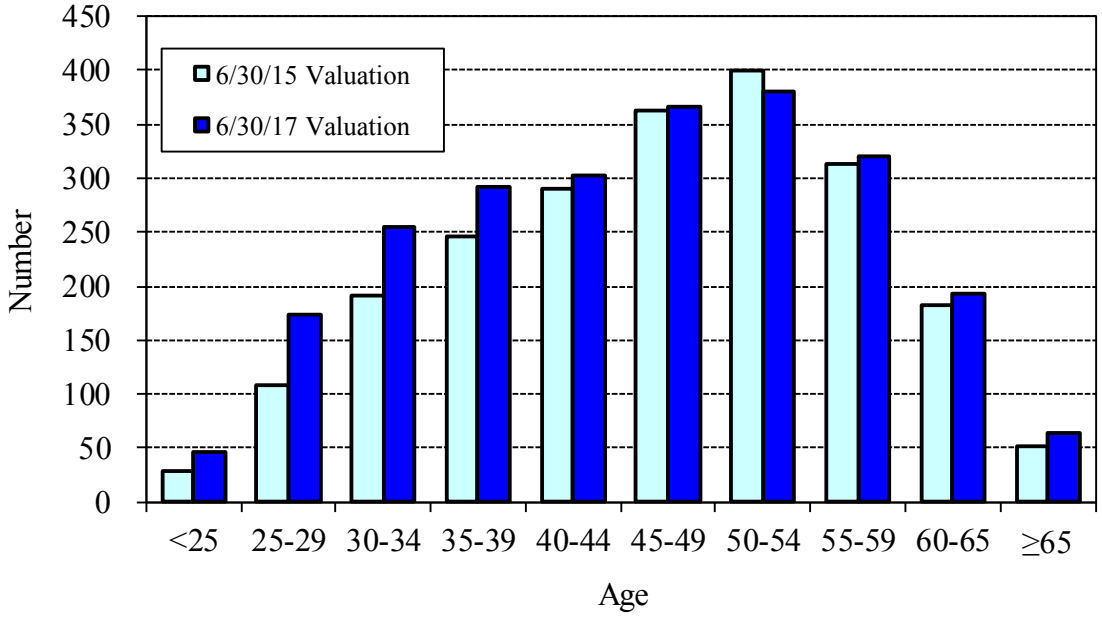
Fire



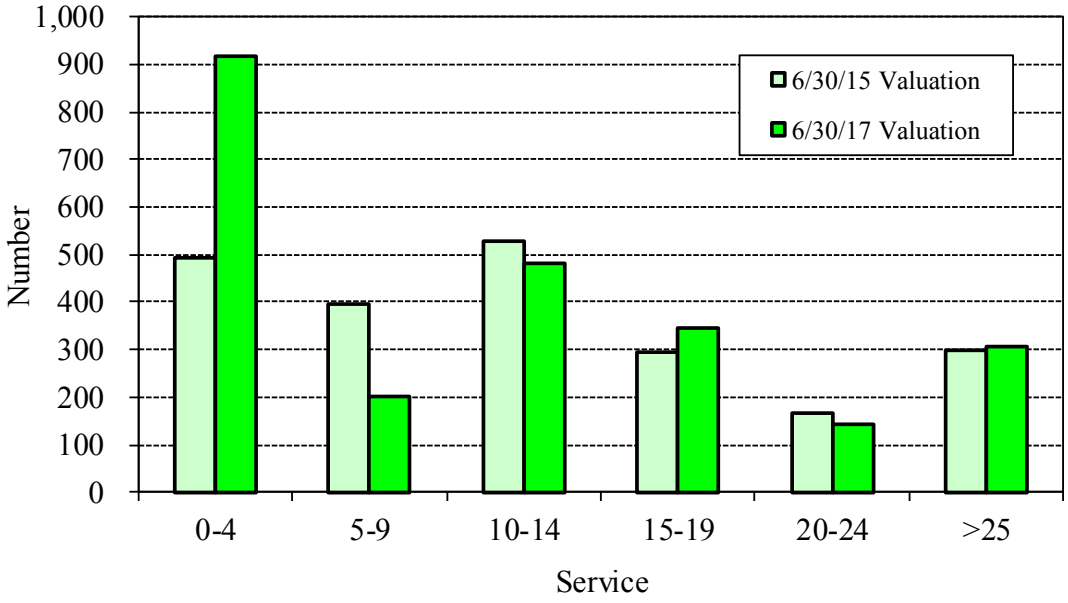
Actives by Age and Service
June 30, 2017
Miscellaneous

Age	City Service							
	< 1	1-4	5-9	10-14	15-19	20-24	≥ 25	Total
< 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

Active Age Distribution
Miscellaneous



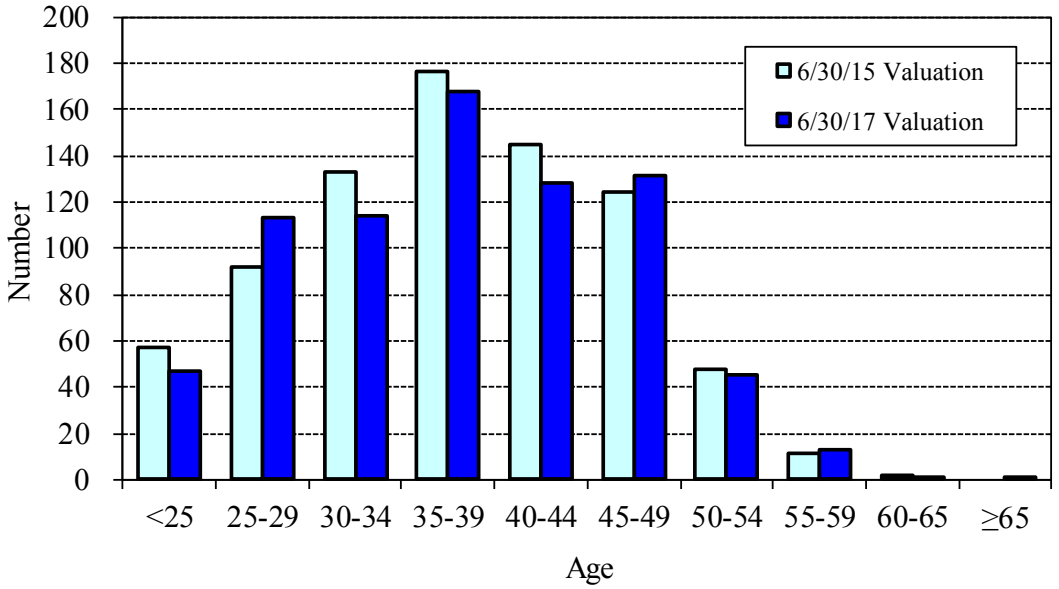
Active Service Distribution
Miscellaneous



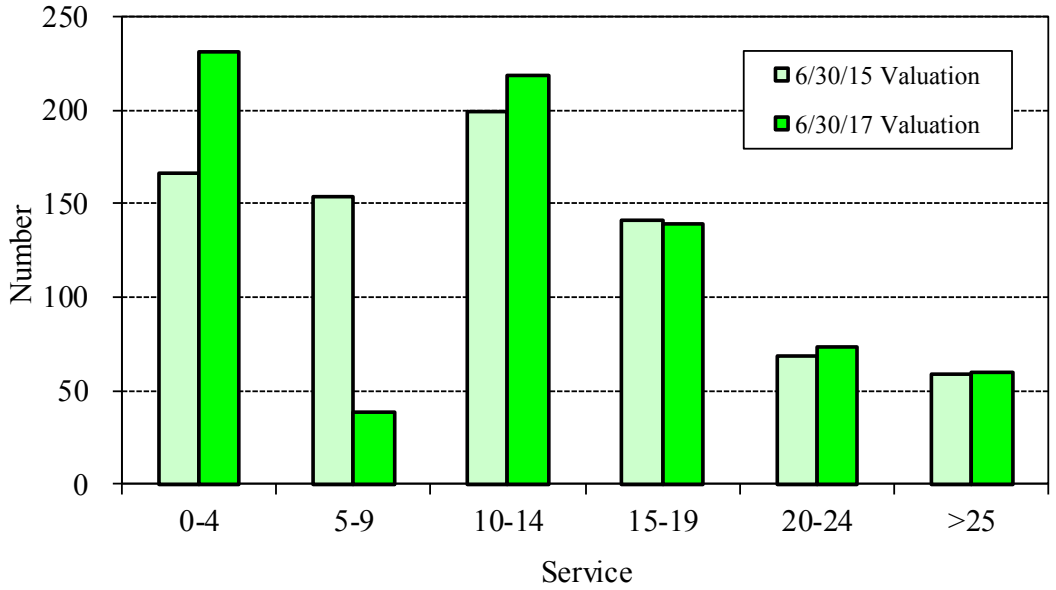
Actives by Age and Service
June 30, 2017
Police

Age	City Service							
	< 1	1-4	5-9	10-14	15-19	20-24	≥ 25	Total
< 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

Active Age Distribution
Police



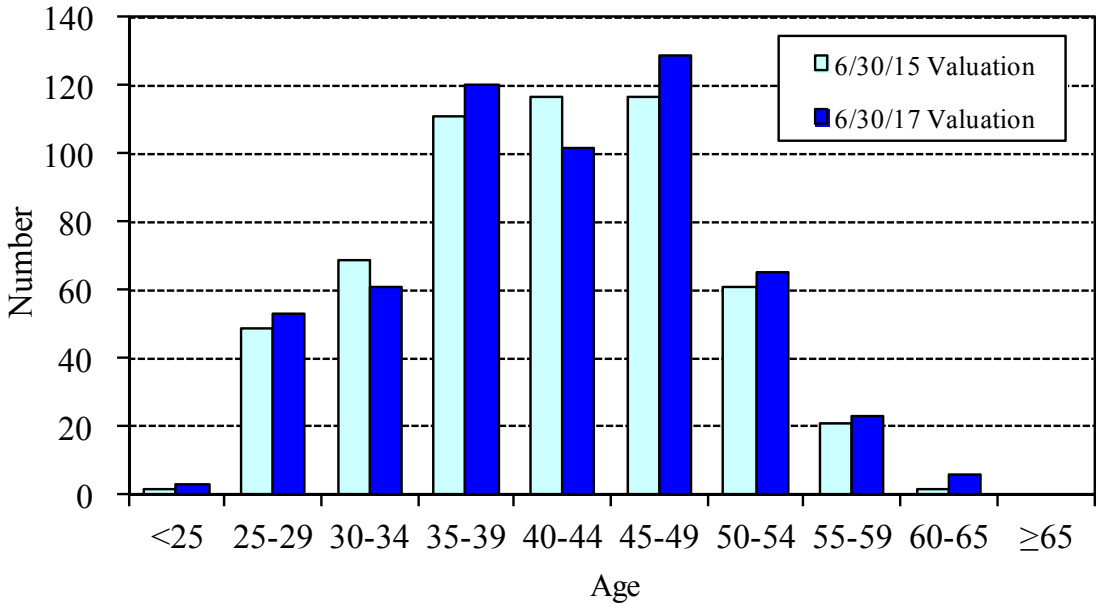
Active Service Distribution
Police



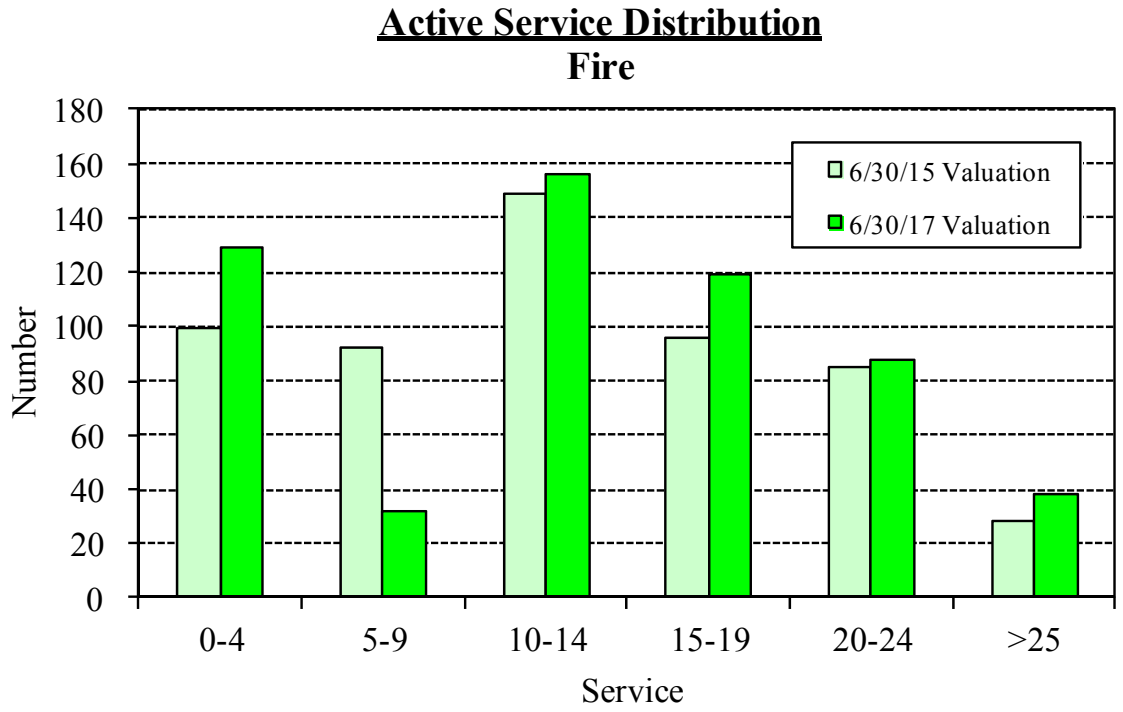
Actives by Age and Service
June 30, 2017
Fire

Age	City Service							
	< 1	1-4	5-9	10-14	15-19	20-24	≥ 25	Total
< 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

Active Age Distribution
Fire



DATA SUMMARY



ACTUARIAL ASSUMPTIONS

	June 30, 2015 Valuation	June 30, 2017 Valuation
■ Valuation Date	■ June 30, 2015 ■ Fiscal Years 2016/17 & 2017/18	■ June 30, 2017 ■ Fiscal Years 2018/19 & 2019/20
■ Discount Rate	■ 4.50% – Pre-fund one time resources ■ CERBT asset allocation strategy #1	■ 3.95% ■ Based on closed group crossover analysis following GASBS 75 methodology: • 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	■ 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	■ 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	■ CalPERS 1997-2011 Experience Study ■ SCERS – 6/30/13 Valuation Assumptions	■ CalPERS 1997-2011 Experience Study ■ SCERS – 6/30/17 Valuation Assumptions
■ CalPERS Service	■ City service plus ½ service between age 30 and City hire date	■ Same

	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

	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

ACTUARIAL ASSUMPTIONS

	June 30, 2015 Valuation	June 30, 2017 Valuation
■ Medical Trend	Increase from Prior Year Year / Non-Medicare / Medicare 2015: Actual 2015 Premiums 2016: Actual 2016 Premiums 2017: 7.0% / 7.2% 2018: 6.5% / 6.7% 2019: 6.0% / 6.1% 2020: 5.5% / 5.6% 2021+: 5.0% / 5.0%	Increase from Prior Year Year / Non-Medicare / Medicare 2017: Actual 2017 Premiums 2018: Actual 2018 Premiums 2019: 7.50% / 6.50% 2020: 7.50% / 6.50% 2021: 7.25% / 6.30% 2022: 7.00% / 6.10% 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

	June 30, 2015 Valuation	June 30, 2017 Valuation
■ Dental & Vision Trend	■ 3.00%	■ 2.75%
■ Cap Increase Rates	■ Fire hired <1/14/15: • 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	■ Fire hired <1/14/15: • 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
■ Participation at Retirement	■ Based on current retiree participation, varies by % of cash benefit earned at retirement:	■ Based on retirements during fiscal years 2015 to 2017, varies by % of cash benefit earned at retirement:
■ Pre 1/1/91 Inactive Vested Ret. Age	■ SCERS: • Sect 399 – Age 62 • Sect 175 – Age 65	■ Same

% of Benefit Earned	Participation Assumption
0%	10%
50%	40%
75%	55%
100%	75%

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%

M = Medical, D = Dental, V = Vision

ACTUARIAL ASSUMPTIONS

■ Estimated Monthly Age-Based Claims Cost per Retiree

June 30, 2015 Valuation

	FY 2015/16		
Medical Plan	Age	M	F
Kaiser HMO	50	$610	$794
	55	789	809
	60	1,002	863
Sutter Health	50	642	835
	55	830	851
	60	1,055	909
Western Health	50	616	801
	55	796	816
	60	1,011	871

June 30, 2017 Valuation

	FY 2017/18		
Medical Plan	Age	M	F
Kaiser HMO	50	$676	$738
	55	876	883
	60	1,120	1,053
Sutter Health	50	695	758
	55	901	907
	60	1,152	1,082
Western Health	50	652	711
	55	844	850
	60	1,079	1,014

■ Includes updated age-related claims cost factors

ACTUARIAL ASSUMPTIONS

	June 30, 2015 Valuation	June 30, 2017 Valuation
■ Medical Plan at Retirement	■ Currently covered – Same as active elections: • Pre-Medicare – same as current active elections with Account Based Plans => Standard Plans • Post-Medicare: ➢ Kaiser => Kaiser SA ➢ Sutter Health and Western Health => HN Seniority+ ■ Currently waived – Kaiser HMO Premium Plan	■ Same
■ Waived Retiree Re-Election	■ Retirees < 65 – 30% re-elect at age 65 ■ Retirees ≥ 65 – 0% re-elect	■ Same

ACTUARIAL ASSUMPTIONS

	June 30, 2015 Valuation	June 30, 2017 Valuation
■ Medicare Eligible Rate	■ Hired before 4/1/86: • Misc – 90% • Safety – 80% ■ Hired on or after 4/1/86: 100% ■ Retirees under age 65: • Misc – 95% • Safety – 90%	■ Same
■ Marital Status at Retirement	■ Actives: • Currently covered – current marital status • Not currently covered – 85% married ■ Retirees – current marital status	■ Same

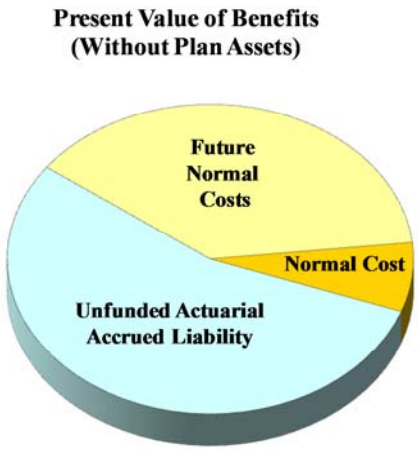
ACTUARIAL ASSUMPTIONS

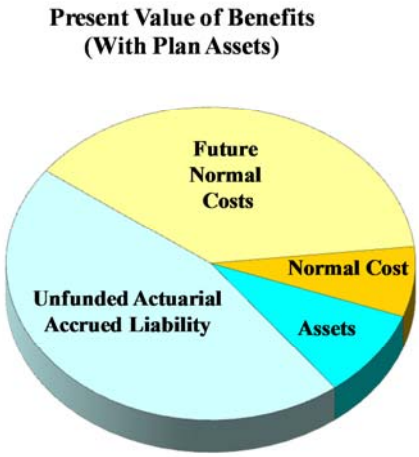
	June 30, 2015 Valuation	June 30, 2017 Valuation
■ Spouse Age	■ Actives – Males 3 years older than females ■ Retirees – Males 3 years older than females if spouse birth date not available	■ Same
■ Surviving Spouse Participation	■ 100%	■ Same
■ Dependents at Retirement	■ Pre-65: • Actives ➢ Misc – 10% ➢ Safety – 20% • Retirees – same as current coverage ■ Post-65 – 0%	■ Same

DEFINITIONS

■ OPEB Actuarial Valuation	■ 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
■ PayGo Cost	■ 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

Present Value of Benefits





■ 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

BARTEL ASSOCIATES, LLC

Retiree Healthcare Plan

June 30, 2018 GASBS 75 Information
As of Measurement Date June 30, 2017
Based on the June 30, 2017 Actuarial Valuation

Mary Beth Redding, Vice President & Actuary
Catherine Wandro, Assistant Vice President & Actuary

Bartel Associates, LLC

October 31, 2018

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Required Supplementary Information	13
Actuarial Certification	18
Supporting Calculations	19
Crossover Test	29

Applicable Dates and Periods

	2017/18 Employer Fiscal Year
■ Reporting date	June 30, 2018
■ Measurement date	June 30, 2017
■ Measurement period	July 1, 2016 to June 30, 2017
■ Actuarial valuation date**	June 30, 2017
■ Employer's fiscal year	July 1, 2017 to June 30, 2018

** For GASBS 75 implementation, update procedures were used to roll backward the total OPEB liability to the previous measurement date

Plan Information

Fiscal Year End	June 30, 2018
■ Plan Type	Agent Multiple Employer
■ OPEB Trust	Yes
■ Special Funding Situation	No
■ Nonemployer Contributing Entity	No

Long-Term Expected Rate of Return

	Target Allocation CERBT - Strategy 1	Long Term Expected Real Rate of Return
■ Asset Class		
● Global Equity	57%	4.82%
● Fixed income	27%	1.47%
● TIPS	5%	1.29%
● Commodities	3%	0.84%
● REITs	8%	3.76%
■ Expected Annual Real Return		4.08%
■ Assumed Long-Term Rate of Inflation		2.75%
■ Assumed Investment Expenses		(0.05%)
■ Long-Term Expected Rate of Return Net of Investment Expenses		6.78%
■ Rounded to Nearest 0.25%		6.75%

The target asset allocation was provided by CERBT.

The long term expected real rates of return are Bartel Associates estimates and are presented as geometric means developed over a 20-year period.

Employees Covered by Benefit Terms

At June 30, 2017, the measurement date, the following numbers of employees were covered by the benefit terms:

	Number of Covered Employees
■ Inactives currently receiving benefits	2,826
■ Inactives entitled to but not yet receiving benefits*	420
■ Active employees	3,716
■ Total	6,962

* Includes 410 waived retirees and 10 pre 1/1/91 inactive vested

Net OPEB Liability/(Asset)

(amounts in $000's)

	Fiscal Year Ending	
	6/30/18	6/30/17
■ Measurement date	6/30/17	6/30/16
■ Total OPEB liability (TOL)	$ 415,957	$ 425,766
■ Fiduciary net position (FNP)	(26,445)	(15,084)
■ Net OPEB liability (NOL)	$ 389,512	$ 410,682

Change in Net OPEB Liability/(Asset)

(amounts in $000's)

	Total OPEB Liability	Fiduciary Net Position	Net OPEB Liability
■ Balance at FYE 6/30/17*	$ 425,766	$ 15,084	$ 410,682
■ Changes for the year			
● Service cost	11,872	-	11,872
● Interest	15,313	-	15,313
● Changes of benefit terms	-	-	-
● Difference between expected and actual experience	-	-	-
● Changes of assumptions	(24,429)	-	(24,429)
● Contributions - employer**	-	21,605	(21,605)
● Contributions - employee	-	297	(297)
● Net investment income	-	2,034	(2,034)
● Benefit payments including refunds	(12,565)	(12,565)	-
● Administrative expense	-	(10)	10
■ Net changes	(9,809)	11,361	(21,170)
■ Balance at FYE 6/30/18***	$ 415,957	$ 26,445	$ 389,512

* Previous measurement date 6/30/16 *** Measurement date 6/30/17

** Contributions to trust of $9,040 plus $10,011 cash benefit payments and $2,554 implied subsidy payments.

Sensitivity of Net OPEB Liability to Changes in Assumptions

(amounts in $000's)

	Discount Rate		
	1% Decrease (2.95%)	Current Rate (3.95%)	1% Increase (4.95%)
■ Net OPEB liability	$ 454,908	$ 389,512	$ 336,829

	Trend Rate		
	1% Decrease (6.5%/5.5% decreasing to 3.00%)	Current Rate (7.5%/6.5% decreasing to 4.00%)	1% Increase (8.5%/7.5% decreasing to 5.00%)
■ Net OPEB liability	$ 331,170	$ 389,512	$ 463,363

OPEB Expense for Fiscal Year*

(amounts in $000's)

	Fiscal Year 2017/18 Meas. Period 2016/17
■ OPEB expense	$ 21,420

* See page 24 for OPEB expense detail, which is not a required disclosure.

Balances of Deferred Outflows/Inflows of Resources

(amounts in $000's)

	FYE: June 30, 2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources
■ Differences between expected and actual experience	$ -	$ -
■ Changes of assumptions	-	20,424
■ Net difference between projected and actual earnings on plan investments	-	561
■ Employer contributions made* subsequent to the measurement date	21,072	N/A
■ Total	$ 21,072	$ 20,985

* City contributions to the trust of $8,169 plus $10,123 cash benefit payments and $2,780 implied subsidy benefits paid by the City outside the trust.

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

(amounts in $000's)

Fiscal Year Ending June 30	Deferred Outflows/(Inflows) of Resources
■ 2019	$ (4,145)
■ 2020	(4,145)
■ 2021	(4,145)
■ 2022	(4,146)
■ 2023	(4,005)
■ 2024	(399)
■ 2025	-
■ Thereafter	-

Significant Actuarial Assumptions
Used in Calculating the Total OPEB Liability

Actuarial Assumption	June 30, 2017 Measurement Date
■ Discount Rate	■ Discount rate based on Crossover Test ■ 3.95% at June 30, 2017 ■ 3.55% at June 30, 2016
■ Long-Term Expected Rate of Return on Investments	■ 6.75%, net of investment expenses
■ Municipal Bond Rate	■ 3.13% as of June 30, 2017 ■ 2.71% as of June 30, 2016 ■ Standard & Poors 20 Year High Grade Rate Index
■ General Inflation	■ 2.75% per annum
■ Crossover Test Assumptions	■ Assumed $1.5 million annual contribution ■ Administrative expenses = .05% of pay ■ The crossover date is 6/30/37 ■ Single equivalent discount rate at 6/30/17 of 3.94%, rounded to 3.95%

Significant Actuarial Assumptions
Used in Calculating the Total OPEB Liability

Actuarial Assumption	June 30, 2017 Measurement Date
■ Mortality, Disability, Termination, Retirement	■ CalPERS 1997-2011 Experience Study ■ SCERS 6/30/17 Valuation Assumptions (limited applicability)
■ Mortality Improvement	■ Mortality projected fully generational with Society of Actuaries mortality improvement Scale MP-16
■ Medical Trend	■ Pre-Medicare – 7.5% for 2019, decreasing to 4.0% for 2076 and later ■ Medicare – 6.5% for 2019, decreasing to 4.0% for 2076 and later
■ Healthcare Participation for Future Retirees	■ 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

Schedule of Changes in Net OPEB Liability and Related Ratios

(amounts in $000's)

■ Fiscal Year:	2018
■ Measurement Period:	2016/2017
■ Changes in total OPEB liability	
● Service cost	$ 11,872
● Interest	15,313
● Difference between expected and actual experience	-
● Changes of assumptions	(24,429)
● Changes of benefit terms	-
● Benefit payments including refunds	(12,565)
■ Net changes	(9,809)
■ Total OPEB liability (beginnning)	425,766
■ Total OPEB liability (ending)	$ 415,957

Schedule of Changes in Net OPEB Liability and Related Ratios

(amounts in $000's)

■ Fiscal Year:	2018
■ Measurement Period:	2016/2017
■ Changes in plan fiduciary net position	
● Contributions - employer	$ 21,605
● Contributions - employee	297
● Net investment income	2,034
● Benefit payments including refunds	(12,565)
● Administrative expense	(10)
■ Net changes	11,361
■ Plan fiduciary net position (beginnning)	15,084
■ Plan fiduciary net position (ending)	$ 26,445

Schedule of Changes in Net OPEB Liability and Related Ratios

(amounts in $000's)

■ Fiscal Year:	2018
■ Measurement Period:	2016/17
■ Net OPEB liability/(asset) (end of year)	$ 389,512
■ Plan fiduciary net position as a percentage of the total OPEB liability	6.4%
■ Covered payroll*	$ 237,926
■ Net OPEB liability as a percentage of covered payroll	164%

*For the 12 month period ending on June 30, 2017 (measurement date).

Schedule of Employer Contributions

(amounts in $000's)

	Fiscal Year 2017/18
■ Actuarially determined contribution (ADC)*	$ 36,085
■ Contributions in relation to the actuarially determined contribution	21,072
■ Contribution deficiency/(excess)	15,013
■ Covered payroll**	236,885
■ Contributions as a percentage of covered payroll	9%

* Employer ADC equals total ADC of $36,393 less $308 employee contributions.

** For the 12 month period ending on June 30, 2018 (fiscal year end).

Notes to Schedule of Employer Contribution Methods and Assumptions for Actuarially Determined Contribution for the 2017/18 Fiscal Year

■ Valuation Date	■ June 30, 2015
■ Actuarial Cost Method	■ Entry age, level percentage of payroll
■ Amortization Method	■ Level percent of payroll over closed 18 year period
■ Asset Valuation Method	■ Investment gains/losses spread over 5-year rolling period with 20% market value corridor
■ Discount Rate	■ 4.50%
■ General Inflation	■ 3.00%
■ Mortality, Disability, Termination, Retirement	■ CalPERS 1997-2011 Experience Study ■ SCERS 6/30/13 Valuation Assumptions
■ Medical Trend	■ Pre-Medicare – 7.0% for 2017, decreasing to 5.0% for 2021 and later ■ Medicare – 7.2% for 2017, decreasing to 5.0% for 2021 and later
■ Other Assumptions	■ See the June 30, 2015 actuarial valuation report dated 1/25/16

Actuarial Certification

This report presents the City of Sacramento Retiree Healthcare Plan 2017/18 disclosure under Governmental Accounting Standards Board Statement No. 75 (GASBS 75).

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

The valuation is based on Plan provisions and participant data provided by the City, as summarized in our full actuarial valuation report, which we relied on and did not audit. We reviewed the participant data for reasonableness. As permitted under GASBS 75, the total OPEB liability has been calculated from the June 30, 2017 actuarial valuation. Additional information on participants included in the valuation and actuarial assumptions can be found in the June 30, 2017 actuarial valuation 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 75. As members of the American Academy of Actuaries meeting the Academy Qualification Standards, we certify the actuarial results and opinions herein.

Respectfully submitted,

Mary Elizabeth Redding, FSA, EA, MAAA, FCA
Vice President
Bartel Associates, LLC
October 31, 2018

Catherine A. Wandro, ASA, MAAA, FCA
Assistant Vice President
Bartel Associates, LLC
October 31, 2018

Recognition of Deferred Outflows/Inflows at June 30, 2018

Differences between Expected and Actual Experience

(amounts in $000's)

Fiscal Year:	2017/18	Total
■ **Measurement Period**	**2016/17**	
■ Initial amount	$ -	
■ Initial recognition period	6.1 years	
■ Amount recognized in OPEB Expense for Fiscal Year		
● 2017/18 (Current year)	-	-
● 2018/19	-	-
● 2019/20	-	-
● 2020/21	-	-
● 2021/22	-	-
● 2022/23	-	-
● Thereafter	-	-
● Total	-	-
■ Deferred Outflows at FYE	-	-
■ Deferred Inflows at FYE	-	-

Recognition of Deferred Outflows/Inflows at June 30, 2018

Changes of Assumptions

(amounts in $000's)

Fiscal Year:	2017/18	Total
■ **Measurement Period**	**2016/17**	
■ Initial amount	$ -	
■ Initial recognition period	6.1 years	
■ Amount recognized in OPEB Expense for Fiscal Year		
● 2017/18 (Current year)	(4,005)	(4,005)
● 2018/19	(4,005)	(4,005)
● 2019/20	(4,005)	(4,005)
● 2020/21	(4,005)	(4,005)
● 2021/22	(4,005)	(4,005)
● 2022/23	(4,005)	(4,005)
● 2023/24	(399)	(399)
● Thereafter	-	-
● Total	(24,429)	(24,429)
■ Deferred Outflows at FYE	-	-
■ Deferred Inflows at FYE	(20,424)	(20,424)

Recognition of Deferred Outflows/Inflows at June 30, 2018

Projected Versus Actual Earnings on Investments

(amounts in $000's)

Fiscal Year:	2017/18	Total
■ **Measurement Period**	**2016/17**	
■ Initial amount *	$ (701)	
■ Initial recognition period	5 years	
■ Amount recognized in OPEB Expense for Fiscal Year		
● 2017/18 (Current year)	(140)	(140)
● 2018/19	(140)	(140)
● 2019/20	(140)	(140)
● 2020/21	(140)	(140)
● 2021/22	(141)	(141)
● Thereafter	-	-
● Total	(701)	(701)
■ Deferred Outflows at FYE	-	-
■ Deferred Inflows at FYE	(561)	(561)

* Calculation of inital amount for 2016/17 measurement period:
Projected earnings on investments of $1,333 (page 26), less
Actual earnings on investments of $2,034 (net investment income, page 6)

Recognition of Deferred Outflows/Inflows in Future OPEB Expense

(amounts in $000's)

Source:	Differences between Expected and Actual Experience	Changes of Assumptions	Projected Versus Actual Earnings on Investments	Total
● 2018/19	$ -	$ (4,005)	$ (140)	$ (4,145)
● 2019/20	-	(4,005)	(140)	(4,145)
● 2020/21	-	(4,005)	(140)	(4,145)
● 2021/22	-	(4,005)	(141)	(4,146)
● 2022/23	-	(4,005)	-	(4,005)
● 2023/24	-	(399)	-	(399)
● Thereafter	-	-	-	-

Calculation of Average Expected Remaining Service Lifetime

(amounts in $000's)

As of:	6/30/2017
■ Number of expected future years of service	40,103
■ Number of actives and inactives for AERSL Calculation*:	
● Eligible Active employees	3,672
● Pre 1/1/91 Inactive Vested	10
● Retirees	2,923
● Total	6,605
■ Average expected remaining service lifetime	6.1

* Includes only participants where a non-zero benefit is assumed payable in the valuation.

Components of OPEB Expense

(amounts in $000's)

	Fiscal Year 2017/18
■ Service cost	$ 11,872
■ Interest on total OPEB liability	15,313
■ Projected earning on investments	(1,333)
■ Employee contributions	(297)
■ Administrative expense	10
■ Change in benefits terms	-
■ Recognition of deferred outflows/inflows	
● Expected and actual experience	-
● Changes of assumptions	(4,005)
● Projected vs actual earnings on investments	(140)
■ OPEB expense	$ 21,420

Components of OPEB Expense
Calculation of Interest on Total OPEB Liability
Fiscal Year 2017/18 with Measurement Period 2016/17

(amounts in $000's)

	Dollar Amount	Expected Return	Portion of Year	Interest
■ Total OPEB liability (beginning of year)	$ 425,766	3.55%	100%	$ 15,115
■ Experience difference	-	3.55%	100%	-
■ Change in benefit terms	-	3.55%	100%	-
■ Changes of assumptions*	(24,429)	3.55%	0%	-
■ Service cost	11,872	3.55%	100%	421
■ Benefit payments	(12,565)	3.55%	50%	(223)
■ Total interest				$ 15,313

* Effective as of the end of measurement period

Components of OPEB Expense
Calculation of Projected Earnings on Investments
Fiscal Year 2017/18 with Measurement Period 2016/17

(amounts in $000's)

	Dollar Amount	Expected Return	Portion of Year	Projected Earnings
■ Fiduciary net position (beginning of year)	$ 15,084	6.75%	100%	$ 1,018
■ Employer contributions	21,605	6.75%	50%	729
■ Employee contributions	297	6.75%	50%	10
■ Benefit payments	(12,565)	6.75%	50%	(424)
■ Administrative expense	(10)	6.75%	50%	-
■ Projected earnings				$ 1,333

Balance Equation

(amounts in $000's)

	Fiscal Year Ending	
	6/30/17	**6/30/18**
■ Measurement date	**6/30/16**	**6/30/17**
■ Total OPEB liability	$ 425,766	$ 415,957
■ Fiduciary net position	15,084	26,445
■ Net OPEB liability	410,682	389,512
■ Deferred inflows of resources	-	20,985
■ Deferred outflows of resources	-	-
■ Net impact	$ 410,682	$ 410,497

Check:

■ Net impact 6/30/17	$ 410,682
● OPEB expense	21,420
● Employer contributions in meas. period	(21,605)
■ Net impact 6/30/18	$ 410,497

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Discount Rate Crossover Test – Projection of Contributions

(amounts in $000's)

Year	Current EE Payroll	ER Contrib. for Current EE	EE Contrib. for Current EE	Contrib. from Payroll of Future EE	Total Contrib.
1	$294,510	$15,926	$303	$0	$16,230
2	289,359	16,309	291	0	16,600
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
11	218,198	22,667	171	0	22,837
12	207,290	23,264	158	0	23,422
13	196,063	23,975	145	0	24,120
14	184,503	24,717	132	0	24,849
15	172,681	25,307	119	0	25,426
16	160,826	25,962	107	0	26,069
17	149,207	26,182	95	0	26,277
18	137,861	26,300	85	0	26,385
19	126,912	26,401	75	0	26,476
20	116,396	26,185	67	0	26,251

Discount Rate Crossover Test – Projection of Contributions

(amounts in $000's)

Year	Current EE Payroll	ER Contrib. for Current EE	EE Contrib. for Current EE	Contrib. from Payroll of Future EE	Total Contrib.
21	$106,061	$26,139	$59	0	$26,197
22	96,315	25,870	52	0	25,921
23	87,270	25,548	45	0	25,593
24	78,528	25,263	39	0	25,302
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
30	32,057	18,271	11	0	18,282
*	*	*	*	*	*
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
90	0	0	0	0	0

Discount Rate Crossover Test – Projection of Fiduciary Net Position

(amounts in $000's)

Year	Projected Beginning FNP	Proj. Contrib. for Current EE	Projected Benefit Payments	Projected Admin Expenses	Projected Investment Earnings	Projected Ending FNP
1	$26,445	$16,230	$14,730	$13	$1,288	$29,219
2	29,219	16,600	15,343	15	1,454	31,916
3	31,916	17,183	16,184	16	1,608	34,507
4	34,507	17,937	17,214	17	1,748	36,960
5	36,960	18,542	18,108	18	1,884	39,260
6	39,260	19,133	19,005	20	2,009	41,377
7	41,377	19,939	20,143	21	2,113	43,265
8	43,265	20,700	21,261	22	2,203	44,885
9	44,885	21,391	22,340	22	2,276	46,190
10	46,190	22,143	23,498	23	2,325	47,137
11	47,137	22,837	24,619	24	2,351	47,683
12	47,683	23,422	25,644	24	2,353	47,790
13	47,790	24,120	26,799	24	2,321	47,409
14	47,409	24,849	28,002	24	2,255	46,486
15	46,486	25,426	29,067	23	2,157	44,979
16	44,979	26,069	30,202	22	2,017	42,840
17	42,840	26,277	30,904	21	1,849	40,039
18	40,039	26,385	31,508	20	1,639	36,535
19	36,535	26,476	32,094	18	1,383	32,282
20	32,282	26,251	32,364	16	1,087	27,240

Discount Rate Crossover Test – Projection of Fiduciary Net Position

(amounts in $000's)

Year	Projected Beginning FNP	Proj. Contrib. for Current EE	Projected Benefit Payments	Projected Admin Expenses	Projected Investment Earnings	Projected Ending FNP
21	$27,240	$26,197	$32,809	$14	$731	$21,346
22	21,346	25,921	33,032	11	326	14,550
23	14,550	25,593	33,199	7	0	6,937
24	6,937	25,302	33,411	3	0	0
25	0	24,735	33,348	0	0	0
26	0	23,785	32,910	0	0	0
27	0	22,848	32,492	0	0	0
28	0	21,165	31,329	0	0	0
29	0	19,789	30,478	0	0	0
30	0	18,282	29,495	0	0	0
*	*	*	*	*	*	*
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
90	0	0	1	0	0	0

Discount Rate Crossover Test – Present Value of Projected Benefits

(amounts in $000's)

Year	Projected Beginning FNP	Projected Benefit Payments	"Funded" Benefit Payments	"Unfunded" Benefit Payments	PV of "Funded" BP Using 6.75% DR	PV of "Unfunded" BP Using 3.13% DR	PV of BP Using 3.94% DR
1	$26,445	$14,730	$14,730	$0	$14,256	$0	$14,448
2	29,219	15,343	15,343	0	13,911	0	14,479
3	31,916	16,184	16,184	0	13,746	0	14,693
4	34,507	17,214	17,214	0	13,696	0	15,036
5	36,960	18,108	18,108	0	13,496	0	15,217
6	39,260	19,005	19,005	0	13,269	0	15,365
7	41,377	20,143	20,143	0	13,175	0	15,668
8	43,265	21,261	21,261	0	13,026	0	15,910
9	44,885	22,340	22,340	0	12,822	0	16,084
10	46,190	23,498	23,498	0	12,634	0	16,276
11	47,137	24,619	24,619	0	12,400	0	16,406
12	47,683	25,644	25,644	0	12,099	0	16,441
13	47,790	26,799	26,799	0	11,845	0	16,530
14	47,409	28,002	28,002	0	11,594	0	16,617
15	46,486	29,067	29,067	0	11,274	0	16,595
16	44,979	30,202	30,202	0	10,973	0	16,589
17	42,840	30,904	30,904	0	10,518	0	16,331
18	40,039	31,508	31,508	0	10,046	0	16,019
19	36,535	32,094	32,094	0	9,586	0	15,698
20	32,282	32,364	0	32,364	0	17,744	15,230

Discount Rate Crossover Test – Present Value of Projected Benefits

(amounts in $000's)

Year	Projected Beginning FNP	Projected Benefit Payments	"Funded" Benefit Payments	"Unfunded" Benefit Payments	PV of "Funded" BP Using 6.75% DR	PV of "Unfunded" BP Using 3.13% DR	PV of BP Using 3.94% DR
21	$27,240	$32,809	$0	$32,809	$0	$17,442	$14,854
22	21,346	33,032	0	33,032	0	17,028	14,388
23	14,550	33,199	0	33,199	0	16,594	13,912
24	6,937	33,411	0	33,411	0	16,193	13,470
25	0	33,348	0	33,348	0	15,673	12,935
26	0	32,910	0	32,910	0	14,997	12,281
27	0	32,492	0	32,492	0	14,357	11,665
28	0	31,329	0	31,329	0	13,423	10,821
29	0	30,478	0	30,478	0	12,662	10,128
30	0	29,495	0	29,495	0	11,882	9,430
*	*	*	*	*	*	*	*
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
90	0	1	0	1	0	0	0
Total					234,366	306,091	540,457

MSRB
Municipal Securities Rulemaking Board

Submission ID:ES966430
03/21/2019 15:40:15

CONTINUING DISCLOSURE (SUBMISSION STATUS: PUBLISHED)

FINANCIAL/OPERATING FILING (CUSIP-9 BASED)

Rule 15c2-12 Disclosure

Annual Financial Information and Operating Data: FY18 Annual Continuing Disclosure Report - 2015 Lease Revenue Bonds (G1C) (Federally Taxable), for the year ended 06/30/2018

Documents

Financial Operating Filing

FY18 - Annual Continuing Disclosure Report - 2015 Lease Revenue (G1C) Taxable.pdf posted 03/21/2019

The following issuers are associated with this continuing disclosure submission:

CUSIP-6	State	Issuer Name
78605Q	CA	SACRAMENTO CALIF PUB FING AUTH LEASE REV

The following 6 securities have been published with this continuing disclosure submission:

CUSIP-9	Maturity Date
78605QAD9	04/01/2019
78605QAE7	04/01/2020
78605QAF4	04/01/2021
78605QAG2	04/01/2022
78605QAH0	04/01/2023
78605QAJ6	04/01/2050

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