



Municipal Market Disclosure Information Cover Sheet

This Filing Applies to:

1. Sacramento City Financing Authority, Refunding Revenue Bonds (Master Lease Program Facilities), 2015, \$183,380,000, Dated: October 14, 2015
785849WC0, 785849WY2, 785849WD8, 785849WE6, 785849WF3, 785849WG1, 785849WH9, 785849WJ5, 785849WZ9, 785849WK2, 785849WL0, 785849WM8, 785849WN6, 785849WP1, 785849WQ9, 785849WR7, 785849WS5, 785849WT3

TYPE OF FILING:

If information is also available on the Internet, give URL: www.dacbond.com

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

- Annual Financial Information & Operating Data (Rule 15c2-12)
2019 Operating Data - 2015 Refunding Revenue Bonds - Supplemental
- Audited Financial Statements or CAFR (Rule 15c2-12)
- Failure to provide as required

Additional / Voluntary Disclosure

- Quarterly / Monthly Financial Information
- Change in Fiscal Year / Timing of Annual Disclosure
- Change in Accounting Standard
- Interim / Additional Financial Information / Operating Data
- Budget
- Investment / Debt / Financial Policy

- Information Provided to Rating Agency, Credit / Liquidity Provider or Other Third Party
- Consultant Reports
- Other Financial / Operating Data

Event Filing

Rule 15c2-12 Disclosure

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

Additional / Voluntary Disclosure

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

Asset-Backed Securities Filing

Additional / Voluntary Disclosure

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

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Relationship to Issuer: Dissemination Agent

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Name: Brian Wong

Title: Debt Manager

Entity: Sacramento, CA, City of

Digital Assurance Certification

Filing Certificate

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

Transmission Details: P31083478

Date & Time Stamp: 03/30/2021

Document Name or Event Type: Annual Financial Information & Operating Data (Rule 15c2-12)

Document Description: 2019 Operating Data - 2015 Refunding Revenue Bonds - Supplemental

DAC Bond Coversheet: Yes

Transmitted to: MSRB-EMMA

Total CUSIPs associated with this Filing: 18

Filing made on Series: 2015

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

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

1. Issue: Sacramento City Financing Authority, Refunding Revenue Bonds (Master Lease Program Facilities), 2015, \$183,380,000, Dated: October 14, 2015

CUSIP: 785849WC0, 785849WY2, 785849WD8, 785849WE6, 785849WF3, 785849WG1, 785849WH9, 785849WJ5, 785849WZ9, 785849WK2, 785849WL0, 785849WM8, 785849WN6, 785849WP1, 785849WQ9, 785849WR7, 785849WS5, 785849WT3

No missing CUSIPs for this bond issue

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

| | |
|----------------------|--|
| Issue | Sacramento City Financing Authority 2015 Refunding Revenue Bonds (Master Lease Program Facilities) |
| Par | \$ 183,380,000 |
| Issued | October 14, 2015 |
| CUSIP Numbers | 785849WC0 785849WY2 785849WD8 785849WE6 785849WF3 785849WG1 785849WH9 785849WJ5 785849WZ9 785849WK2 785849WL0 785849WM8 785849WN6 785849WP1 785849WQ9 785849WR7 785849WS5 785849WT3 |

This filing supplements the following continuing disclosure filing:

FY19 – Annual Continuing Disclosure Report – 2015 Refunding Revenue Bonds – EMMA Submission ID ES1044180

Content of Annual Report

The City's Annual Report for FY2018-19 with respect to the above referenced bonds are supplemented to contain or incorporate by reference the following:

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

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

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

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

- (e) Any or all of the items listed in Section 4(a) or 4(b) above may be included by specific reference to other documents (including official statements of debt issues of the City or related public entities) that have been submitted to EMMA or the Securities and Exchange Commission. If the document included by reference is a final official statement, it must be available through EMMA.**

Voluntary Disclosures

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

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



GASB 68 Accounting Report

(CalPERS ID: 7903930500)

Rate Plan Identifier: 1209

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

Measurement Date of June 30, 2018

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|--|-----|
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|--|-----|

Actuarial Certification

This report provides disclosure and reporting information as required under Governmental Accounting Standards Board Statement 68 (GASB 68) for the Miscellaneous Plan of the City of Sacramento (the "Plan"), an Agent Multiple-Employer Defined Benefit Pension Plan participating in the California Public Employees' Retirement System (CalPERS), for the measurement period ended June 30, 2018.

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

This accounting report relies on liabilities and related validation work performed by the CalPERS Actuarial Office as part of the June 30, 2017 annual funding valuation for the Plan. The census data and benefit provisions underlying the liabilities were prepared as of June 30, 2017 and certified as part of the annual funding valuation by the CalPERS Actuarial Office. The June 30, 2017 liabilities, which were rolled forward to June 30, 2018 and used for this accounting report, are based on actuarial assumptions adopted by the CalPERS Board of Administration and consistent with the requirements of GASB 68. The assumptions and methods are internally consistent and reasonable for this Plan. The asset information used in this accounting report is provided by the CalPERS Financial Office.

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

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



MAY SHUANG YU, ASA, MAAA
Senior Pension Actuary, CalPERS
CalPERS Actuarial Office

Introduction

This is the GASB 68 accounting report for the measurement date June 30, 2018. Notes to the Agent Multiple-Employer Defined Benefit Pension Plan GASB 68 accounting reports are in a separate document, which may be accessed on the CalPERS website at www.calpers.ca.gov.

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

| | |
|--------------------|--------------------------------|
| Valuation Date | June 30, 2017 |
| Measurement Date | June 30, 2018 |
| Measurement Period | June 30, 2017 to June 30, 2018 |

Pension Plan Fiduciary Net Position

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

Changes in the Net Pension Liability

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

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

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

| | Discount Rate -1% 6.15% | Current Discount Rate 7.15% | Discount Rate + 1% 8.15% |
|--------------------------------------|----------------------------|--------------------------------|-----------------------------|
| Plan's Net Pension Liability/(Asset) | \$542,527,902 | \$351,587,593 | \$194,713,685 |

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

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

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

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

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

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

Deferred Outflows and Deferred Inflows of Resources Related to Pensions

The following table presents deferred outflows and deferred inflows of resources related to pensions as of June 30, 2018. Note that no adjustments have been made for contributions subsequent to the measurement date. Appropriate treatment of any contributions made after the measurement date is the responsibility of the employer.

| | Deferred Outflows of Resources | Deferred Inflows of Resources |
|--|--------------------------------|-------------------------------|
| Changes of Assumptions | \$21,705,621 | \$(5,174,869) |
| Differences between Expected and Actual Experience | 4,526,622 | (239,423) |
| Net Difference between Projected and Actual Earnings on Pension Plan Investments | 1,780,020 | 0 |
| Total | \$28,012,263 | \$(5,414,292) |

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

| Measurement Periods Ended June 30: | Deferred Outflows/(Inflows) of Resources |
|------------------------------------|--|
| 2019 | \$32,102,345 |
| 2020 | 2,116,582 |
| 2021 | (9,135,097) |
| 2022 | (2,485,859) |
| 2023 | 0 |
| Thereafter | 0 |

Note: For employers with June 30 year-end, the fiscal year will be one year later than the measurement period. For example, the 2019 measurement period presented in the above table will be listed as year 2020 in the employer's fiscal year ending June 30, 2019 financial statements.

Expected Average Remaining Service Lifetime (EARSL)

The EARSL for the Plan for the measurement period ending June 30, 2018 is 2.9 years, which was obtained by dividing the total service years of 26,895 (the sum of remaining service lifetimes of the active employees) by 9,363 (the total number of participants: active, inactive, and retired). Inactive employees and retirees have remaining service lifetimes equal to 0. Total future service is based on the members' probability of decrementing due to an event other than receiving a cash refund.

Schedules of Required Supplementary Information

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

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

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

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

² Includes any beginning of year adjustment.

Schedules of Required Supplementary Information (continued)

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

Benefit Changes: The figures above do not include any liability impact that may have resulted from plan changes which occurred after the June 30, 2017 valuation date. This applies for voluntary benefit changes as well as any offers of Two Years Additional Service Credit (a.k.a. Golden Handshakes).

Changes of Assumptions: In 2018, demographic assumptions and inflation rate were changed in accordance to the CalPERS Experience Study and Review of Actuarial Assumptions December 2017. There were no changes in the discount rate. In 2017, the discount rate was reduced from 7.65 percent to 7.15 percent. In 2016, there were no changes. In 2015, amounts reported reflect an adjustment of the discount rate from 7.5 percent (net of administrative expense) to 7.65 percent (without a reduction for pension plan administrative expense.) In 2014, amounts reported were based on the 7.5 percent discount rate.

Schedule of Plan Contributions for the Fiscal Years Ended June 30¹

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

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

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

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

Schedules of Required Supplementary Information (continued)

Notes to Schedule of Plan Contributions:

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

| | |
|----------------------------|--|
| Actuarial Cost Method | Entry Age Normal |
| Amortization Method/Period | For details, see June 30, 2015 Funding Valuation Report. |
| Asset Valuation Method | Market Value of Assets. For details, see June 30, 2015 Funding Valuation Report. |
| Inflation | 2.75% |
| Salary Increases | Varies by Entry Age and Service |
| Payroll Growth | 3.00% |
| Investment Rate of Return | 7.50% Net of Pension Plan Investment and Administrative Expenses; includes Inflation. |
| Retirement Age | The probabilities of Retirement are based on the 2014 CalPERS Experience Study for the period from 1997 to 2011. |
| Mortality | The probabilities of mortality are based on the 2014 CalPERS Experience Study for the period from 1997 to 2011. Pre-retirement and Post-retirement mortality rates include 20 years of projected mortality improvement using Scale BB published by the Society of Actuaries. |

Other Information:

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

Appendices

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

Appendix A

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

- Schedule of Changes of Assumptions
- Deferred Outflows of Resources and Deferred Inflows of Resources arising from Changes of Assumptions
- Schedule of Differences between Expected and Actual Experience
- Deferred Outflows of Resources and Deferred Inflows of Resources arising from Differences between Expected and Actual Experience
- Schedule of Differences between Projected and Actual Earnings on Pension Plan Investments
- Deferred Outflows of Resources and Deferred Inflows of Resources arising from Differences between Projected and Actual Earnings on Pension Plan Investments
- Summary of Recognized Deferred Outflows of Resources and Deferred Inflows of Resources

Schedule of Changes of Assumptions

Increase (Decrease) in Pension Expense arising from the Recognition of the Effects of Changes of Assumptions

| Measurement Date | Changes of Assumptions | Remaining Recognition Period (Years) | Increase (Decrease) in Pension Expense arising from the Recognition of the Effects of Changes of Assumptions | | | | | | |
|---|------------------------|--------------------------------------|--|---------------------|----------------------|------------|------------|------------|------------|
| | | | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Thereafter |
| 2014 | \$0 | 0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2015 | (20,152,867) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2016 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2017 | 75,969,675 | 1.8 | 27,132,027 | 21,705,621 | 0 | 0 | 0 | 0 | 0 |
| 2018 | (7,898,485) | 2.9 | (2,723,616) | (2,723,616) | (2,451,253) | 0 | 0 | 0 | 0 |
| Net Increase (Decrease) in Pension Expense | | | \$24,408,411 | \$18,982,005 | \$(2,451,253) | \$0 | \$0 | \$0 | \$0 |

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

| Measurement Date | Increase in Total Pension Liability (a) | Decrease in Total Pension Liability (b) | Amounts Recognized in Pension Expense through June 30, 2018 (c) | Balances at June 30, 2018 | |
|------------------|---|---|---|--|---|
| | | | | Deferred Outflows of Resources (a) – (c) | Deferred Inflows of Resources (b) – (c) |
| 2014 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2015 | 0 | (20,152,867) | (20,152,867) | 0 | 0 |
| 2016 | 0 | 0 | 0 | 0 | 0 |
| 2017 | 75,969,675 | 0 | 54,264,054 | 21,705,621 | 0 |
| 2018 | 0 | (7,898,485) | (2,723,616) | 0 | (5,174,869) |
| | | | | \$21,705,621 | \$(5,174,869) |

Schedule of Differences between Expected and Actual Experience

Increase (Decrease) in Pension Expense arising from the Recognition of the Effects of Differences between Expected and Actual Experience

| Measurement Date | Differences between Expected and Actual Experience | Remaining Recognition Period (Years) | Increase (Decrease) in Pension Expense arising from the Recognition of the Effects of Differences between Expected and Actual Experience | | | | | | |
|---|--|--------------------------------------|--|--------------------|--------------------|------------|------------|------------|------------|
| | | | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Thereafter |
| 2014 | \$0 | 0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2015 | (8,865,289) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2016 | (333,340) | 1.0 | (111,114) | 0 | 0 | 0 | 0 | 0 | 0 |
| 2017 | (837,981) | 1.8 | (299,279) | (239,423) | 0 | 0 | 0 | 0 | 0 |
| 2018 | 6,909,054 | 2.9 | 2,382,432 | 2,382,432 | 2,144,190 | 0 | 0 | 0 | 0 |
| Net Increase (Decrease) in Pension Expense | | | \$1,972,039 | \$2,143,009 | \$2,144,190 | \$0 | \$0 | \$0 | \$0 |

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

| Measurement Date | Experience Losses (a) | Experience Gains (b) | Amounts Recognized in Pension Expense through June 30, 2018 (c) | Balances at June 30, 2018 | |
|------------------|-----------------------|----------------------|---|--|---|
| | | | | Deferred Outflows of Resources (a) – (c) | Deferred Inflows of Resources (b) – (c) |
| 2014 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2015 | 0 | (8,865,289) | (8,865,289) | 0 | 0 |
| 2016 | 0 | (333,340) | (333,340) | 0 | 0 |
| 2017 | 0 | (837,981) | (598,558) | 0 | (239,423) |
| 2018 | 6,909,054 | 0 | 2,382,432 | 4,526,622 | 0 |
| | | | | \$4,526,622 | \$(239,423) |

Schedule of Differences between Projected and Actual Earnings on Pension Plan Investments

**Increase (Decrease) in Pension Expense arising from the Recognition of the Differences
 between Projected and Actual Earnings on Pension Plan Investments**

| Measurement Date | Differences between Projected and Actual Earnings on Pension Plan Investments | Remaining Recognition Period (Years) | Increase (Decrease) in Pension Expense arising from the Recognition of the Differences between Projected and Actual Earnings on Pension Plan Investments | | | | | | |
|---|---|--------------------------------------|--|---------------------|--------------------|----------------------|----------------------|------------|------------|
| | | | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Thereafter |
| 2014 | \$(67,539,546) | 1.0 | \$(13,507,910) | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2015 | 42,768,440 | 2.0 | 8,553,688 | 8,553,688 | 0 | 0 | 0 | 0 | 0 |
| 2016 | 57,793,697 | 3.0 | 11,558,739 | 11,558,739 | 11,558,741 | 0 | 0 | 0 | 0 |
| 2017 | (33,246,191) | 4.0 | (6,649,238) | (6,649,238) | (6,649,238) | (6,649,239) | 0 | 0 | 0 |
| 2018 | (12,429,291) | 5.0 | (2,485,858) | (2,485,858) | (2,485,858) | (2,485,858) | (2,485,859) | 0 | 0 |
| Net Increase (Decrease) in Pension Expense | | | \$(2,530,579) | \$10,977,331 | \$2,423,645 | \$(9,135,097) | \$(2,485,859) | \$0 | \$0 |

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

| Measurement Date | Investment Earnings less than Projected (a) | Investment Earnings greater than Projected (b) | Amounts Recognized in Pension Expense through June 30, 2018 (c) | Balances at June 30, 2018 | |
|------------------|---|--|---|---|---|
| | | | | Deferred Outflows of Resources (d) = (a) – (c) | Deferred Inflows of Resources (e) = (b) – (c) |
| 2014 | \$0 | \$(67,539,546) | \$(67,539,546) | \$0 | \$0 |
| 2015 | 42,768,440 | 0 | 34,214,752 | 8,553,688 | 0 |
| 2016 | 57,793,697 | 0 | 34,676,217 | 23,117,480 | 0 |
| 2017 | 0 | (33,246,191) | (13,298,476) | 0 | (19,947,715) |
| 2018 | 0 | (12,429,291) | (2,485,858) | 0 | (9,943,433) |
| | | | | \$31,671,168 | \$(29,891,148) |
| | | | | Net Deferred Outflows/(Inflows) of Resources | |
| | | | | (d) + (e) | |
| | | | | \$1,780,020 | |

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

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

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

Appendix B

Interest and Total Projected Earnings

- Interest on Total Pension Liability and Total Projected Earnings

Interest on Total Pension Liability and Total Projected Earnings

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

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

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

² During Fiscal Year 2017-18, as a result of Governmental Accounting Standards Board Statement (GASB) No. 75, Accounting and Financial Reporting for Postemployment Benefit Plans Other than Pensions (GASB 75), CalPERS reported its proportionate share of activity related to postemployment benefits for participation in the State of California's agent OPEB plan. Accordingly, CalPERS recorded a one-time expense as a result of the adoption of GASB 75.

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



GASB 68 Accounting Report

(CalPERS ID: 7903930500)

Rate Plan Identifier: 1210

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

Measurement Date of June 30, 2018

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Actuarial Certification

This report provides disclosure and reporting information as required under Governmental Accounting Standards Board Statement 68 (GASB 68) for the Safety Plan of the City of Sacramento (the "Plan"), an Agent Multiple-Employer Defined Benefit Pension Plan participating in the California Public Employees' Retirement System (CalPERS), for the measurement period ended June 30, 2018.

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

This accounting report relies on liabilities and related validation work performed by the CalPERS Actuarial Office as part of the June 30, 2017 annual funding valuation for the Plan. The census data and benefit provisions underlying the liabilities were prepared as of June 30, 2017 and certified as part of the annual funding valuation by the CalPERS Actuarial Office. The June 30, 2017 liabilities, which were rolled forward to June 30, 2018 and used for this accounting report, are based on actuarial assumptions adopted by the CalPERS Board of Administration and consistent with the requirements of GASB 68. The assumptions and methods are internally consistent and reasonable for this Plan. The asset information used in this accounting report is provided by the CalPERS Financial Office.

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

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



MAY SHUANG YU, ASA, MAAA
Senior Pension Actuary, CalPERS
CalPERS Actuarial Office

Introduction

This is the GASB 68 accounting report for the measurement date June 30, 2018. Notes to the Agent Multiple-Employer Defined Benefit Pension Plan GASB 68 accounting reports are in a separate document, which may be accessed on the CalPERS website at www.calpers.ca.gov.

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

| | |
|--------------------|--------------------------------|
| Valuation Date | June 30, 2017 |
| Measurement Date | June 30, 2018 |
| Measurement Period | June 30, 2017 to June 30, 2018 |

Pension Plan Fiduciary Net Position

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

Changes in the Net Pension Liability

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

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

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

| | Discount Rate -1% 6.15% | Current Discount Rate 7.15% | Discount Rate + 1% 8.15% |
|--------------------------------------|----------------------------|--------------------------------|-----------------------------|
| Plan's Net Pension Liability/(Asset) | \$849,975,680 | \$582,271,224 | \$363,215,128 |

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

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

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

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

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

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

Deferred Outflows and Deferred Inflows of Resources Related to Pensions

The following table presents deferred outflows and deferred inflows of resources related to pensions as of June 30, 2018. Note that no adjustments have been made for contributions subsequent to the measurement date. Appropriate treatment of any contributions made after the measurement date is the responsibility of the employer.

| | Deferred Outflows of Resources | Deferred Inflows of Resources |
|--|--------------------------------|-------------------------------|
| Changes of Assumptions | \$66,651,324 | \$(21,004,676) |
| Differences between Expected and Actual Experience | 9,299,357 | (9,538,808) |
| Net Difference between Projected and Actual Earnings on Pension Plan Investments | 3,433,052 | 0 |
| Total | \$79,383,733 | \$(30,543,484) |

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

| Measurement Periods Ended June 30: | Deferred Outflows/(Inflows) of Resources |
|------------------------------------|--|
| 2019 | \$27,995,434 |
| 2020 | 19,639,223 |
| 2021 | 2,752,957 |
| 2022 | (795,239) |
| 2023 | (752,126) |
| Thereafter | 0 |

Note: For employers with June 30 year-end, the fiscal year will be one year later than the measurement period. For example, the 2019 measurement period presented in the above table will be listed as year 2020 in the employer's fiscal year ending June 30, 2019 financial statements.

Expected Average Remaining Service Lifetime (EARSL)

The EARSL for the Plan for the measurement period ending June 30, 2018 is 5.3 years, which was obtained by dividing the total service years of 15,183 (the sum of remaining service lifetimes of the active employees) by 2,887 (the total number of participants: active, inactive, and retired). Inactive employees and retirees have remaining service lifetimes equal to 0. Total future service is based on the members' probability of decrementing due to an event other than receiving a cash refund.

Schedules of Required Supplementary Information

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

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

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

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

² Includes any beginning of year adjustment.

Schedules of Required Supplementary Information (continued)

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

Benefit Changes: The figures above do not include any liability impact that may have resulted from plan changes which occurred after the June 30, 2017 valuation date. This applies for voluntary benefit changes as well as any offers of Two Years Additional Service Credit (a.k.a. Golden Handshakes).

Changes of Assumptions: In 2018, demographic assumptions and inflation rate were changed in accordance to the CalPERS Experience Study and Review of Actuarial Assumptions December 2017. There were no changes in the discount rate. In 2017, the discount rate was reduced from 7.65 percent to 7.15 percent. In 2016, there were no changes. In 2015, amounts reported reflect an adjustment of the discount rate from 7.5 percent (net of administrative expense) to 7.65 percent (without a reduction for pension plan administrative expense.) In 2014, amounts reported were based on the 7.5 percent discount rate.

Schedule of Plan Contributions for the Fiscal Years Ended June 30¹

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

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

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

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

Schedules of Required Supplementary Information (continued)

Notes to Schedule of Plan Contributions:

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

| | |
|----------------------------|--|
| Actuarial Cost Method | Entry Age Normal |
| Amortization Method/Period | For details, see June 30, 2015 Funding Valuation Report. |
| Asset Valuation Method | Market Value of Assets. For details, see June 30, 2015 Funding Valuation Report. |
| Inflation | 2.75% |
| Salary Increases | Varies by Entry Age and Service |
| Payroll Growth | 3.00% |
| Investment Rate of Return | 7.50% Net of Pension Plan Investment and Administrative Expenses; includes Inflation. |
| Retirement Age | The probabilities of Retirement are based on the 2014 CalPERS Experience Study for the period from 1997 to 2011. |
| Mortality | The probabilities of mortality are based on the 2014 CalPERS Experience Study for the period from 1997 to 2011. Pre-retirement and Post-retirement mortality rates include 20 years of projected mortality improvement using Scale BB published by the Society of Actuaries. |

Other Information:

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

Appendices

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

Appendix A

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

- Schedule of Changes of Assumptions
- Deferred Outflows of Resources and Deferred Inflows of Resources arising from Changes of Assumptions
- Schedule of Differences between Expected and Actual Experience
- Deferred Outflows of Resources and Deferred Inflows of Resources arising from Differences between Expected and Actual Experience
- Schedule of Differences between Projected and Actual Earnings on Pension Plan Investments
- Deferred Outflows of Resources and Deferred Inflows of Resources arising from Differences between Projected and Actual Earnings on Pension Plan Investments
- Summary of Recognized Deferred Outflows of Resources and Deferred Inflows of Resources

Schedule of Changes of Assumptions

**Increase (Decrease) in Pension Expense arising from the Recognition of the
 Effects of Changes of Assumptions**

| Measurement Date | Changes of Assumptions | Remaining Recognition Period (Years) | Increase (Decrease) in Pension Expense arising from the Recognition of the Effects of Changes of Assumptions | | | | | | |
|---|------------------------|--------------------------------------|--|---------------------|---------------------|---------------------|--------------------|--------------------|------------|
| | | | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Thereafter |
| 2014 | \$0 | 0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2015 | (28,604,249) | 2.3 | (5,397,028) | (5,397,028) | (1,619,109) | 0 | 0 | 0 | 0 |
| 2016 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2017 | 107,046,066 | 4.3 | 20,197,371 | 20,197,371 | 20,197,371 | 20,197,371 | 6,059,211 | 0 | 0 |
| 2018 | (17,241,688) | 5.3 | (3,253,149) | (3,253,149) | (3,253,149) | (3,253,149) | (3,253,149) | (975,943) | 0 |
| Net Increase (Decrease) in Pension Expense | | | \$11,547,194 | \$11,547,194 | \$15,325,113 | \$16,944,222 | \$2,806,062 | \$(975,943) | \$0 |

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

| Measurement Date | Increase in Total Pension Liability (a) | Decrease in Total Pension Liability (b) | Amounts Recognized in Pension Expense through June 30, 2018 (c) | Balances at June 30, 2018 | |
|------------------|---|---|---|--|---|
| | | | | Deferred Outflows of Resources (a) – (c) | Deferred Inflows of Resources (b) – (c) |
| 2014 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2015 | 0 | (28,604,249) | (21,588,112) | 0 | (7,016,137) |
| 2016 | 0 | 0 | 0 | 0 | 0 |
| 2017 | 107,046,066 | 0 | 40,394,742 | 66,651,324 | 0 |
| 2018 | 0 | (17,241,688) | (3,253,149) | 0 | (13,988,539) |
| | | | | \$66,651,324 | \$(21,004,676) |

Schedule of Differences between Expected and Actual Experience

Increase (Decrease) in Pension Expense arising from the Recognition of the Effects of Differences between Expected and Actual Experience

| Measurement Date | Differences between Expected and Actual Experience | Remaining Recognition Period (Years) | Increase (Decrease) in Pension Expense arising from the Recognition of the Effects of Differences between Expected and Actual Experience | | | | | | |
|---|--|--------------------------------------|--|------------------|------------------|----------------------|--------------------|------------------|------------|
| | | | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Thereafter |
| 2014 | \$0 | 0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2015 | (592,555) | 2.3 | (111,803) | (111,803) | (33,540) | 0 | 0 | 0 | 0 |
| 2016 | 14,397,639 | 3.2 | 2,768,777 | 2,768,777 | 2,768,777 | 553,754 | 0 | 0 | 0 |
| 2017 | (15,086,475) | 4.3 | (2,846,505) | (2,846,505) | (2,846,505) | (2,846,505) | (853,950) | 0 | 0 |
| 2018 | 3,954,107 | 5.3 | 746,058 | 746,058 | 746,058 | 746,058 | 746,058 | 223,817 | 0 |
| Net Increase (Decrease) in Pension Expense | | | \$556,527 | \$556,527 | \$634,790 | \$(1,546,693) | \$(107,892) | \$223,817 | \$0 |

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

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

Schedule of Differences between Projected and Actual Earnings on Pension Plan Investments

**Increase (Decrease) in Pension Expense arising from the Recognition of the Differences
 between Projected and Actual Earnings on Pension Plan Investments**

| Measurement Date | Differences between Projected and Actual Earnings on Pension Plan Investments | Remaining Recognition Period (Years) | Increase (Decrease) in Pension Expense arising from the Recognition of the Differences between Projected and Actual Earnings on Pension Plan Investments | | | | | | |
|---|---|--------------------------------------|--|---------------------|--------------------|-----------------------|----------------------|------------|------------|
| | | | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Thereafter |
| 2014 | \$(98,188,251) | 1.0 | \$(19,637,651) | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2015 | 61,061,962 | 2.0 | 12,212,392 | 12,212,394 | 0 | 0 | 0 | 0 | 0 |
| 2016 | 81,619,456 | 3.0 | 16,323,891 | 16,323,891 | 16,323,892 | 0 | 0 | 0 | 0 |
| 2017 | (45,755,815) | 4.0 | (9,151,163) | (9,151,163) | (9,151,163) | (9,151,163) | 0 | 0 | 0 |
| 2018 | (17,467,045) | 5.0 | (3,493,409) | (3,493,409) | (3,493,409) | (3,493,409) | (3,493,409) | 0 | 0 |
| Net Increase (Decrease) in Pension Expense | | | \$(3,745,940) | \$15,891,713 | \$3,679,320 | \$(12,644,572) | \$(3,493,409) | \$0 | \$0 |

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

| Measurement Date | Investment Earnings less than Projected (a) | Investment Earnings greater than Projected (b) | Amounts Recognized in Pension Expense through June 30, 2018 (c) | Balances at June 30, 2018 | |
|------------------|---|--|---|---|---|
| | | | | Deferred Outflows of Resources (d) = (a) – (c) | Deferred Inflows of Resources (e) = (b) – (c) |
| 2014 | \$0 | \$(98,188,251) | \$(98,188,251) | \$0 | \$0 |
| 2015 | 61,061,962 | 0 | 48,849,568 | 12,212,394 | 0 |
| 2016 | 81,619,456 | 0 | 48,971,673 | 32,647,783 | 0 |
| 2017 | 0 | (45,755,815) | (18,302,326) | 0 | (27,453,489) |
| 2018 | 0 | (17,467,045) | (3,493,409) | 0 | (13,973,636) |
| | | | | \$44,860,177 | \$(41,427,125) |
| | | | | Net Deferred Outflows/(Inflows) of Resources | |
| | | | | (d) + (e) | |
| | | | | \$3,433,052 | |

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

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

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

Appendix B

Interest and Total Projected Earnings

- Interest on Total Pension Liability and Total Projected Earnings

Interest on Total Pension Liability and Total Projected Earnings

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

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

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

² During Fiscal Year 2017-18, as a result of Governmental Accounting Standards Board Statement (GASB) No. 75, Accounting and Financial Reporting for Postemployment Benefit Plans Other than Pensions (GASB 75), CalPERS reported its proportionate share of activity related to postemployment benefits for participation in the State of California's agent OPEB plan. Accordingly, CalPERS recorded a one-time expense as a result of the adoption of GASB 75.

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



BARTEL
ASSOCIATES, LLC

City of Sacramento

Sacramento City Employees' Retirement System

June 30, 2018

GASBS 67 & 68 Reporting

November 21, 2018

GASBS 67 & 68 REPORTING

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

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

The report provides information intended for reporting under GASBS 67 and 68, but may not be appropriate for other purposes. Information provided in this report may be useful to the City for the System's financial management. Future results may differ significantly if the System's experience differs from our assumptions or if there are changes in plan design, actuarial methods, or actuarial assumptions. The project scope did not include an analysis of this potential variation.

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

To the best of our knowledge, this report is complete and accurate and has been conducted using generally accepted actuarial principles and practices. Additionally, in our opinion, actuarial methods and assumptions comply with GASBS 67 and 68. As members of the American Academy of Actuaries meeting the Academy Qualification Standards, we certify the actuarial results and opinions herein.

Respectfully submitted,



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) | <u>286,609</u> | <u>288,509</u> |
| ■ Net pension liability (NPL) | 38,060 | 48,369 |
| ■ Funded status (FNP/TPL) | 88.3% | 85.6% |

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

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

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

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

Discount rate

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

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

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

SECTION 2
GASBS 67 AND 68 NOTE DISCLOSURES

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

Date of actuarial valuation

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

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

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

SECTION 3
GASBS 67 AND 68 REQUIRED SUPPLEMENTARY INFORMATION

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

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

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

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

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

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

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

SECTION 3

GASBS 67 AND 68 REQUIRED SUPPLEMENTARY INFORMATION

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

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

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

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

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

SECTION 4
GASBS 68 ADDITIONAL NOTE DISCLOSURES

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

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

Pension Expense for Fiscal Year
(Amounts in 000's)

| | 2017/18 |
|-------------------|----------------|
| ■ Pension Expense | \$ 2,336 |

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

SECTION 4
GASBS 68 ADDITIONAL NOTE DISCLOSURES

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

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

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

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

SECTION 5

GASBS 68 SUPPORTING CALCULATIONS

Recognition of Deferred Outflows and Inflows of Resources

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

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

SECTION 5
GASBS 68 SUPPORTING CALCULATIONS

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

Projected Versus Actual Earnings on Investments

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

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

SECTION 5
GASBS 68 SUPPORTING CALCULATIONS

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

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

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

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

SECTION 5
GASBS 68 SUPPORTING CALCULATIONS

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

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

GASBS 68 Balance Equation
(Amounts in 000's)

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

SECTION 5
GASBS 68 SUPPORTING CALCULATIONS

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

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

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

SECTION 5
GASBS 68 SUPPORTING CALCULATIONS

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

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

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

SECTION 5
GASBS 68 SUPPORTING CALCULATIONS

Discount Rate “Crossover” Test

Present Values of Projected Benefit Payments – amounts in \$000’s

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

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





RETIREE HEALTHCARE PLAN

June 30, 2017 Actuarial Valuation
Final Results

Bartel Associates, LLC

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

March 9, 2018

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BENEFIT SUMMARY

| | Fire | Police & Miscellaneous |
|---|---|---|
| <ul style="list-style-type: none"> ■ Eligibility | <ul style="list-style-type: none"> ■ Retire directly from the City: <ul style="list-style-type: none"> ● Age 50 & 10 years City service, or ● 30 years City service, or ● Industrial disability, or ● Death in line of duty | |
| <ul style="list-style-type: none"> ■ Benefit for Hires before Plan Change Date <p>Medical, Dental & Vision</p> | <ul style="list-style-type: none"> ■ Retiree only - lowest cost \$25 co-pay medical plan premium plus additional 5.28% of cost plus lowest cost PPO dental plan premium, plus \$25 ■ 2017 = \$794.69/mo 2018 = \$834.73/mo ■ <u>Service</u> <u>%</u> <ul style="list-style-type: none"> 10 50% 15 75% 20+ 100% ID&D 100% | <ul style="list-style-type: none"> ■ Retiree only - \$300/mo ■ Retiree + Dependents - \$365/mo ■ <u>Service</u> <u>%</u> <ul style="list-style-type: none"> 10 50% 15 75% 20+ 100% ID&D 100% ■ Retirees after 2014 in WCE, Auto Marine & Specialty Painters, and Unrepresented – not allowed to participate in City health plans when Medicare-eligible |

BENEFIT SUMMARY

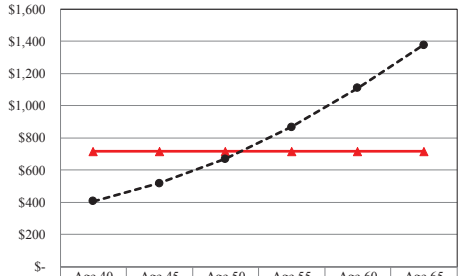
| | Fire | Police & Miscellaneous |
|--|--|--|
| <ul style="list-style-type: none"> ■ Benefit for Hires after Plan Change Date¹ <p>Medical, Dental & Vision</p> | <ul style="list-style-type: none"> ■ Pre-Medicare - \$774/mo ■ Post-Medicare - \$387/mo ■ <u>Service</u> <u>%</u> <ul style="list-style-type: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

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

BENEFIT SUMMARY

| | Fire | Police & Miscellaneous | | |
|---------------------------------|--|------------------------|------------------------|--------------|
| ■ Other OPEB | ■ No City contribution for life insurance or Medicare Part B premiums | | | |
| ■ Fire Department Unit Trust | <ul style="list-style-type: none"> ■ Effective 6/27/15 ■ Sub-account in City's CERBT account ■ Member Contribution: \$45/mo ■ City Contribution: \$45/mo | ■ n/a | | |
| ■ Pay-As-You-Go Costs (\$000's) | <u>Fiscal Year</u> | <u>Cash</u> | <u>Implied Subsidy</u> | <u>Total</u> |
| | ■ 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 | <ul style="list-style-type: none"> ■ Non-Medicare retirees pay blended rates instead of actual cost ■ Active employee premiums subsidize non-Medicare retiree cost | | | | | | | | | | | | | | | | | | | | | | | | |
| | <p>2017 Kaiser HMO \$25 Co-Pay - Male</p>  <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>Age 40</th> <th>Age 45</th> <th>Age 50</th> <th>Age 55</th> <th>Age 60</th> <th>Age 65</th> </tr> </thead> <tbody> <tr> <td>▲ Active/Early Retiree Premium</td> <td>\$716</td> <td>\$716</td> <td>\$716</td> <td>\$716</td> <td>\$716</td> <td>\$716</td> </tr> <tr> <td>● Estimated Cost</td> <td>\$406</td> <td>\$517</td> <td>\$670</td> <td>\$868</td> <td>\$1,110</td> <td>\$1,376</td> </tr> </tbody> </table> | | | | | Age 40 | Age 45 | Age 50 | Age 55 | Age 60 | Age 65 | ▲ Active/Early Retiree Premium | \$716 | \$716 | \$716 | \$716 | \$716 | \$716 | ● Estimated Cost | \$406 | \$517 | \$670 | \$868 | \$1,110 | \$1,376 |
| | Age 40 | Age 45 | Age 50 | Age 55 | Age 60 | Age 65 | | | | | | | | | | | | | | | | | | | |
| ▲ Active/Early Retiree Premium | \$716 | \$716 | \$716 | \$716 | \$716 | \$716 | | | | | | | | | | | | | | | | | | | |
| ● Estimated Cost | \$406 | \$517 | \$670 | \$868 | \$1,110 | \$1,376 | | | | | | | | | | | | | | | | | | | |
| | <ul style="list-style-type: none"> ■ GASB OPEB includes active “implied subsidy” with retiree cost ■ Medical: <ul style="list-style-type: none"> ● Value to age 65 for Medicare eligible retirees ● Value for life for non-Medicare eligible retirees ■ Dental & vision: no implied subsidy valued | | | | | | | | | | | | | | | | | | | | | | | | |

PARTICIPANT STATISTICS

Participant Statistics – June 30, 2017

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

PARTICIPANT STATISTICS

Participant Statistics – June 30, 2015

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

ACTUARIAL ASSUMPTIONS HIGHLIGHTS

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

ACTUARIAL ASSUMPTIONS HIGHLIGHTS

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

ACTUARIAL ASSUMPTIONS HIGHLIGHTS

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

ACTUARIAL ASSUMPTIONS HIGHLIGHTS

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

ACTUARIAL ASSUMPTIONS HIGHLIGHTS

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

ACTUARIAL ASSUMPTIONS HIGHLIGHTS

| | June 30, 2015 Valuation | June 30, 2017 Valuation |
|-------------------------|---|--------------------------------|
| ■ Basis for Assumptions | <ul style="list-style-type: none"> ■ No experience study performed for this Plan with the exception of the participation at retirement assumption, which is based on retirements during fiscal years 2015 to 2017. ■ CalPERS January 2014 experience study covering 1997 to 2011 experience was used ■ Mortality improvement based on Society of Actuaries tables ■ Inflation based on the Plan’s very long time horizon ■ Age-based claims are based on factors published by the Society of Actuaries ■ Medical trend based on Society of Actuaries Getzen Model | |

ACTUARIAL METHODS

| Method | June 30, 2015 Valuation | June 30, 2017 Valuation |
|-----------------------------|---|--------------------------------|
| ■ Cost Method | ■ Entry Age Normal | |
| ■ Funding Policy | ■ Continue budget appropriations as well as contribute one time resources into CERBT asset allocation strategy #1 | |
| ■ Actuarial Value of Assets | ■ Methodology: <ul style="list-style-type: none"> ● Investment gains/losses spread over 5-year rolling period ● Not less than 80% nor more than 120% of market value ■ Allocation to Misc/Police/Fire: <ul style="list-style-type: none"> ● Fire Department Unit Trust assets allocated to Fire group ● Remaining assets allocated to Misc/Police/Fire in proportion to actuarial accrued liability | |
| ■ Amortization Method | ■ Level percent of payroll | |

ACTUARIAL METHODS

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

ASSETS

Market Value of Plan Assets

(Amounts in 000's)

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

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

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

ASSETS

Market Value of Plan Assets

(Amounts in 000's)

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

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

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

⁶ Expected investment return of 6.75%.

ASSETS

Actuarial Value of Plan Assets

(Amounts in 000's)

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

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

⁸ Expected investment return of 7.25%.

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

ASSETS

Actuarial Value of Plan Assets

(Amounts in 000's)

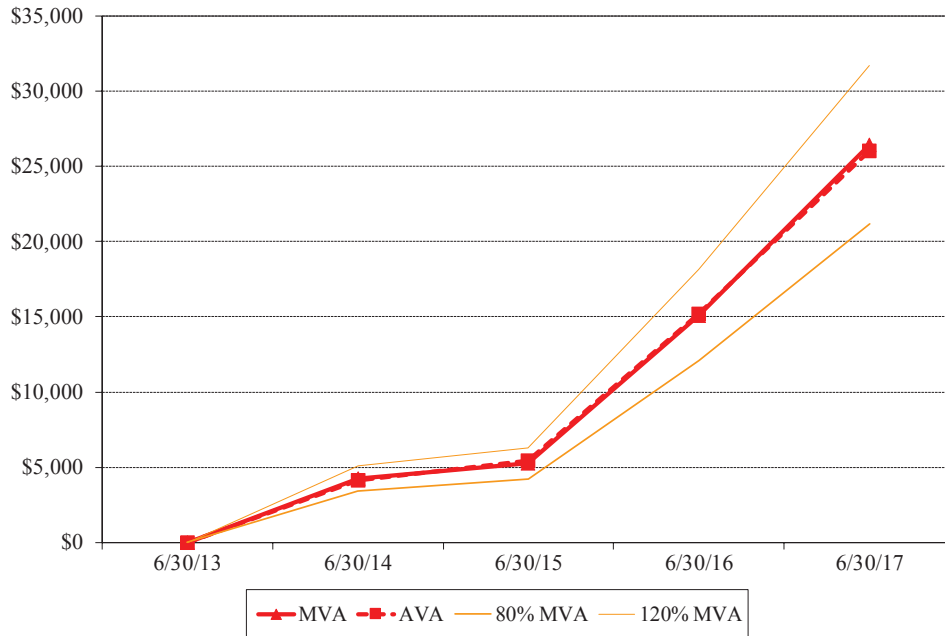
| Actuarial Value of Assets | Projected 2017/18 | | |
|--|-------------------|------------|--------------|
| | City | Fire | Total |
| ■ AVA (Beginning of Year) | \$24,807 | \$1,234 | \$26,041 |
| • Employer/Employee Contribution | 893 | 607 | 1,500 |
| • Benefit Payment | - | - | - |
| • Expected Investment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

¹⁰ Expected investment return of 6.75%.

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

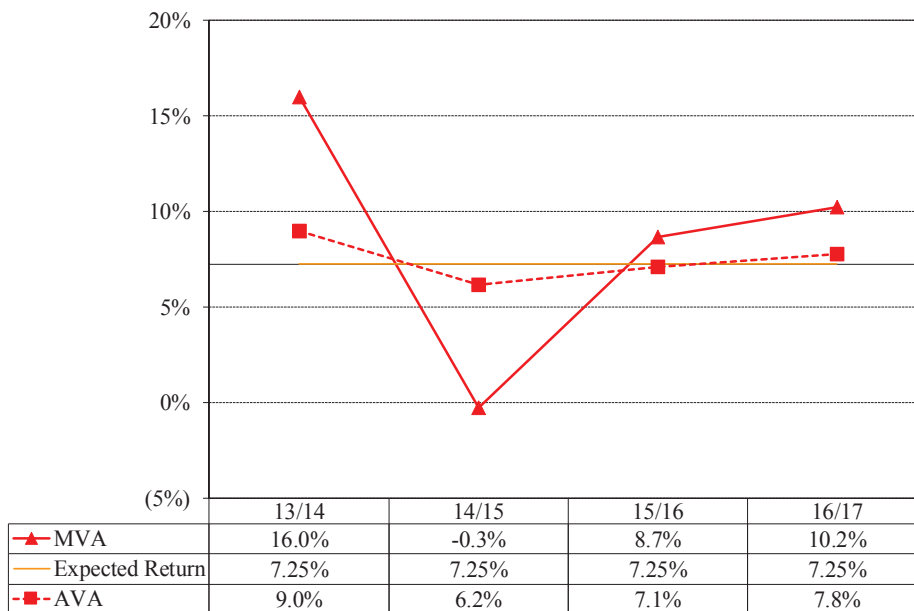
ASSETS

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



ASSETS

Annualized Asset Returns



RESULTS

Actuarial Obligations

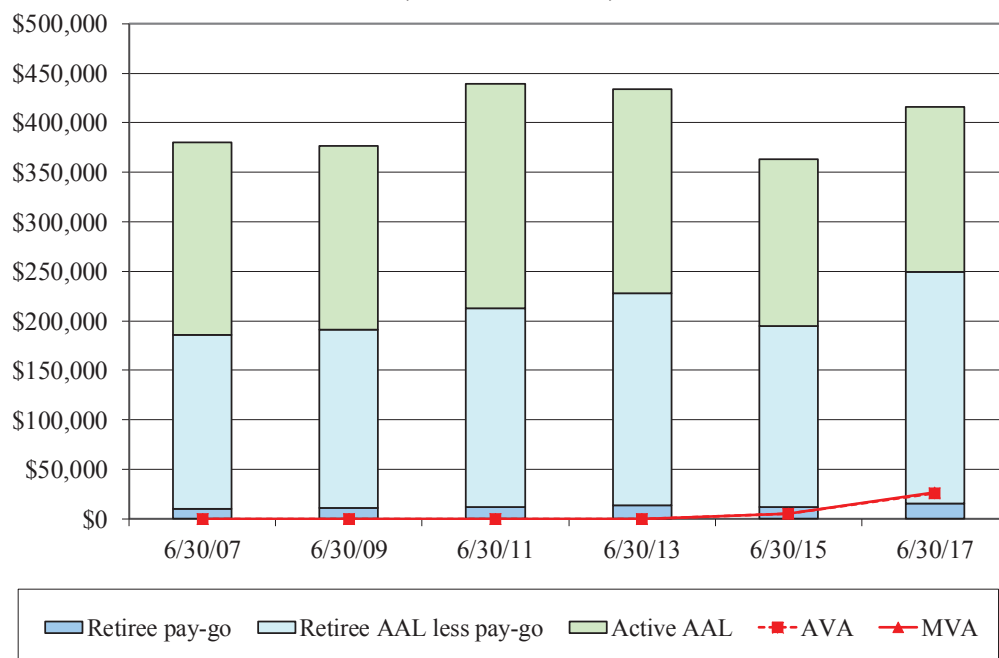
(Amounts in 000's)

| Discount Rate | 6/30/15 Valuation | | 6/30/17 Valuation | |
|--------------------------------------|-------------------|----------------------|-------------------|----------------------|
| | 4.50% | | 3.95% | |
| | 6/30/15 | Projected to 6/30/16 | 6/30/17 | Projected to 6/30/18 |
| ■ Present Value of Benefits | | | | |
| • Actives | \$296,447 | | \$290,592 | |
| • Retirees | <u>194,312</u> | | <u>248,926</u> | |
| • Total | 490,759 | | 539,518 | |
| ■ Actuarial Accrued Liability | | | | |
| • Actives | 168,512 | | 167,031 | |
| • Retirees | <u>194,312</u> | | <u>248,926</u> | |
| • Total | 362,824 | \$378,534 | 415,957 | \$428,858 |
| ■ Actuarial Value of Assets | <u>(5,461)</u> | <u>(15,116)</u> | <u>(26,041)</u> | <u>(29,432)</u> |
| ■ Unfunded AAL | 357,363 | 363,418 | 389,916 | 399,426 |
| ■ AVA Funded Ratio | 1.5% | | 6.3% | |
| ■ Normal Cost | | 11,921 | | 11,834 |
| ■ Pay-As-You-Go Cost | | 12,122 | | 15,343 |

RESULTS

Historical Actuarial Accrued Liability

(Amounts in 000's)



RESULTS

Estimated Actuarial Gain/Loss Analysis

(Amounts in 000's)

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

RESULTS

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RESULTS

Actuarially Determined Contribution (ADC)

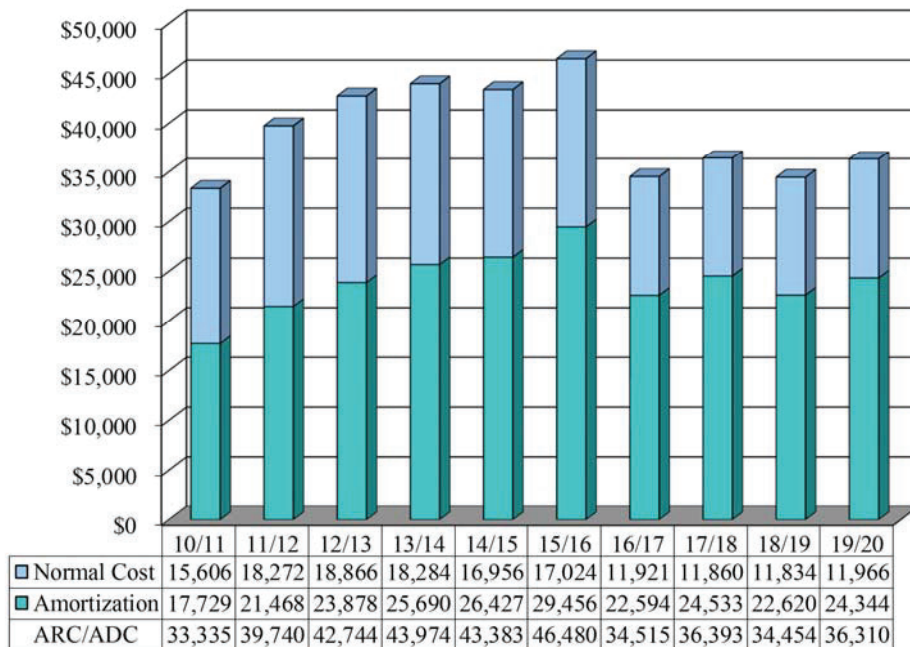
(Amounts in 000's)

| | 6/30/15 Valuation | | 6/30/17 Valuation | |
|--------------------------------|-------------------|---------------|-------------------|---------------|
| | 2016/17 | 2017/18 | 2018/19 | 2019/20 |
| ■ ADC - \$ | | | | |
| • Normal Cost | \$11,921 | \$11,860 | \$ 11,834 | \$ 11,966 |
| • UAAL Amortization | <u>22,594</u> | <u>24,533</u> | <u>22,620</u> | <u>24,344</u> |
| • 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 | <u>8.1%</u> | <u>8.5%</u> | <u>7.5%</u> | <u>7.8%</u> |
| • ADC | 12.4% | 12.6% | 11.4% | 11.6% |

RESULTS

Historical Actuarially Determined Contributions

(Amounts in 000's)



RESULTS

Estimated GASBS 45 Net OPEB Obligation (NOO)

(Amounts in 000's)

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

RESULTS

10-Year Projection Illustration

(Amounts in 000's)

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

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

RESULTS

Actuarial Obligations by Cash/Implied Subsidy

3.95% Discount Rate

June 30, 2017

(Amounts in 000's)

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

¹³ Assets allocated in proportion to liability.

RESULTS

Actuarially Determined Contribution (ADC) by Cash/Implied Subsidy

2018/19 Fiscal Year, 3.95% Discount Rate

(Amounts in 000's)

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

RESULTS

Actuarial Obligations by Group

3.95% Discount Rate

(Amounts in 000's)

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

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



March 9, 2018



RESULTS

Actuarially Determined Contribution (ADC) by Group

2018/19 Fiscal Year, 3.95% Discount Rate

(Amounts in 000's)

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



March 9, 2018



RESULTS

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

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

RESULTS

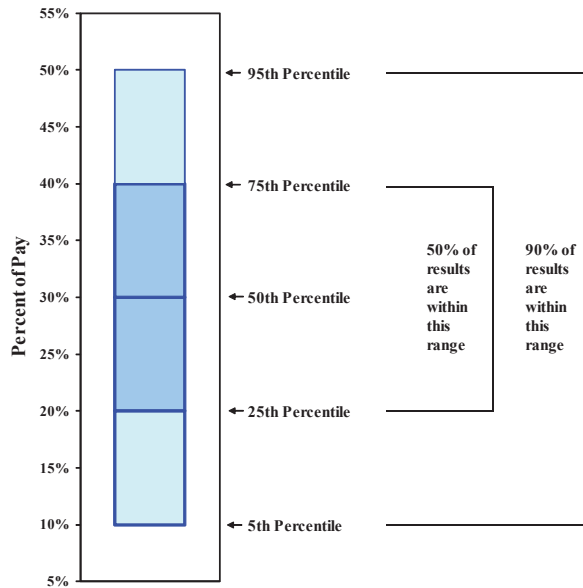
Schedule of Funding Progress
 (Amounts in 000's)

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

¹⁵ The valuations for 6/30/07 through the 6/30/11 are based on a 4.25% discount rate. The 6/30/13 & 6/30/15 valuations are based on a 4.50% discount rate. The 6/30/17 valuation is based on a 3.95% discount rate.

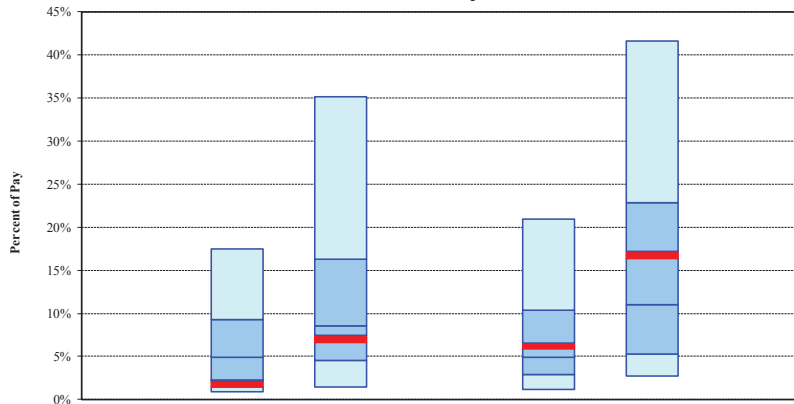
BARTEL ASSOCIATES OPEB DATABASE

**Bartel Associates OPEB Database
Sample Percentile Graph**



BARTEL ASSOCIATES OPEB DATABASE

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

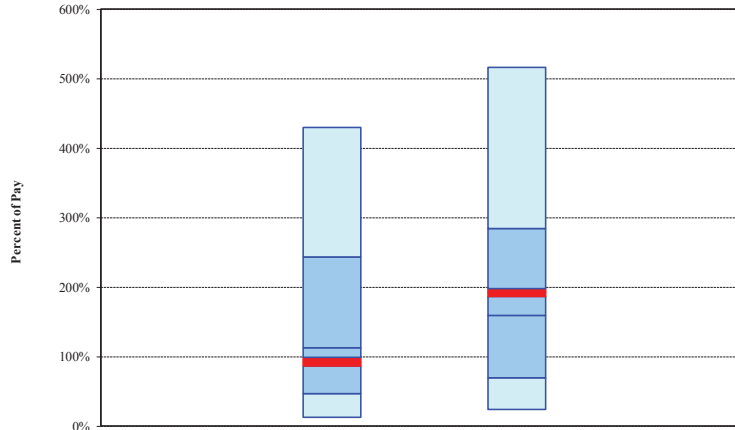


| | <u>Miscellaneous</u> | | <u>Safety</u> | |
|-----------------------|----------------------|-------------|---------------|--------------|
| | <u>NC</u> | <u>ARC</u> | <u>NC</u> | <u>ARC</u> |
| 95th Percentile | 17.5% | 35.1% | 20.9% | 41.6% |
| 75th Percentile | 9.3% | 16.3% | 10.3% | 22.8% |
| 50th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

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

BARTEL ASSOCIATES OPEB DATABASE

**Bartel Associates OPEB Database
Actuarial Accrued Liability**



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

Discount Rate = 3.95%

ACTUARIAL CERTIFICATION

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

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

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

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

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

Respectfully submitted,

Mary Beth Redding

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

Catherine A. Wandro

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

EXHIBITS

| Topic | Page |
|-----------------------|-------------|
| Premiums | E- 1 |
| Data Summary | E- 9 |
| Actuarial Assumptions | E-32 |
| Definitions | E-42 |

EXHIBITS

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PREMIUMS

2017 Monthly Medical Premiums
Actives

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

PREMIUMS

2017 Monthly Medical Premiums
Non Medicare Retirees

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

PREMIUMS

2017 Monthly Medical Premiums
Medicare Retirees

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

PREMIUMS

2017 Monthly Dental & Vision Premiums

Actives

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

Retirees

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

Actives and Retirees

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

PREMIUMS

2018 Monthly Medical Premiums
Actives

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

PREMIUMS

2018 Monthly Medical Premiums
Non Medicare Retirees

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

PREMIUMS

2018 Monthly Medical Premiums
Medicare Retirees

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

PREMIUMS

2018 Monthly Dental & Vision Premiums

Actives

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

Retirees

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

Actives and Retirees

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

DATA SUMMARY

Medical Plan Participation
Non-Waived Participants
June 30, 2017

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

DATA SUMMARY

Current Active Medical Coverage
June 30, 2017

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

DATA SUMMARY

Current Retiree Medical Coverage – Pre 65

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

DATA SUMMARY

Current Retiree Medical Coverage – Post 65

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

DATA SUMMARY

Dental Coverage

June 30, 2017

Actives

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

Retirees

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

DATA SUMMARY

Vision Coverage

June 30, 2017

Actives

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

Retirees

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

DATA SUMMARY

Retiree Medical and Dental Participation

| Valuation Date | Medical Only | Dental Only | Both Medical & Dental | Neither Medical nor Dental | Total |
|----------------|--------------|-------------|-----------------------|----------------------------|-------|
| 6/30/2009 | 188 | 549 | 1,686 | 350 | 2,773 |
| 6/30/2011 | 309 | 592 | 1,478 | 431 | 2,810 |
| 6/30/2013 | 220 | 785 | 1,645 | 417 | 3,067 |
| 6/30/2015 | 214 | 863 | 1,601 | 446 | 3,124 |
| 6/30/2017 | 196 | 922 | 1,651 | 467 | 3,236 |

DATA SUMMARY

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DATA SUMMARY

Retiree Medical Plan Coverage by Age

June 30, 2017

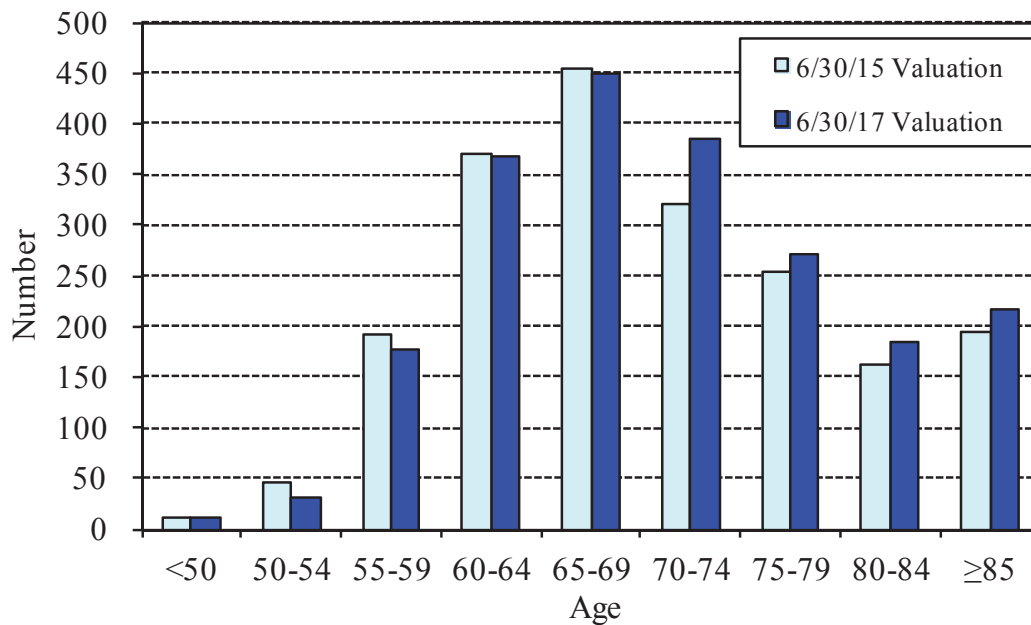
Miscellaneous

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

DATA SUMMARY

Retiree Age Distribution

Miscellaneous



DATA SUMMARY

Retiree Medical Plan Coverage by Age

June 30, 2017

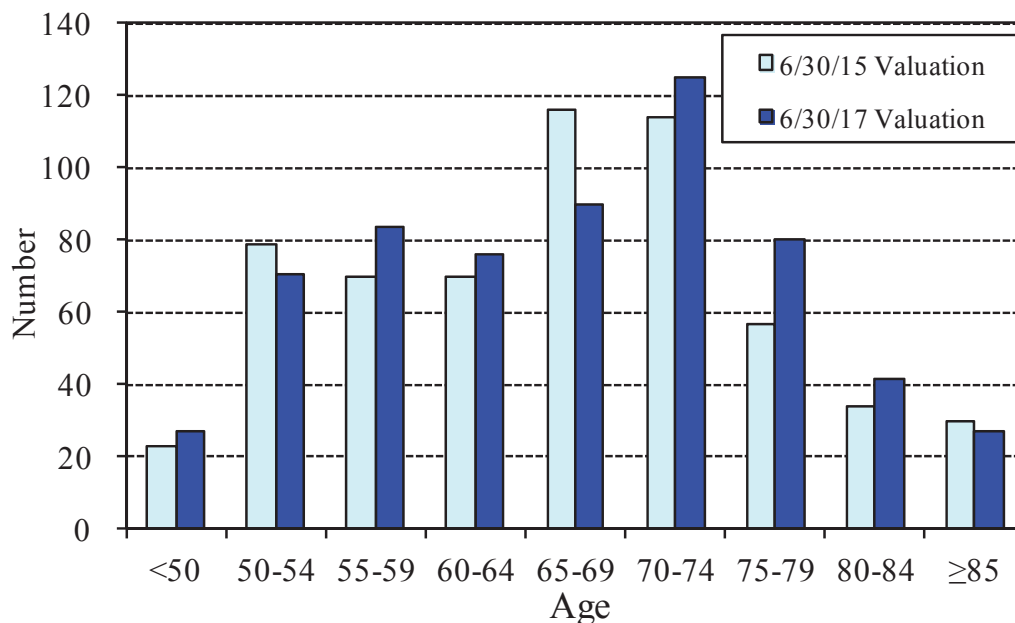
Police

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

DATA SUMMARY

Retiree Age Distribution

Police



DATA SUMMARY

Retiree Medical Plan Coverage by Age

June 30, 2017

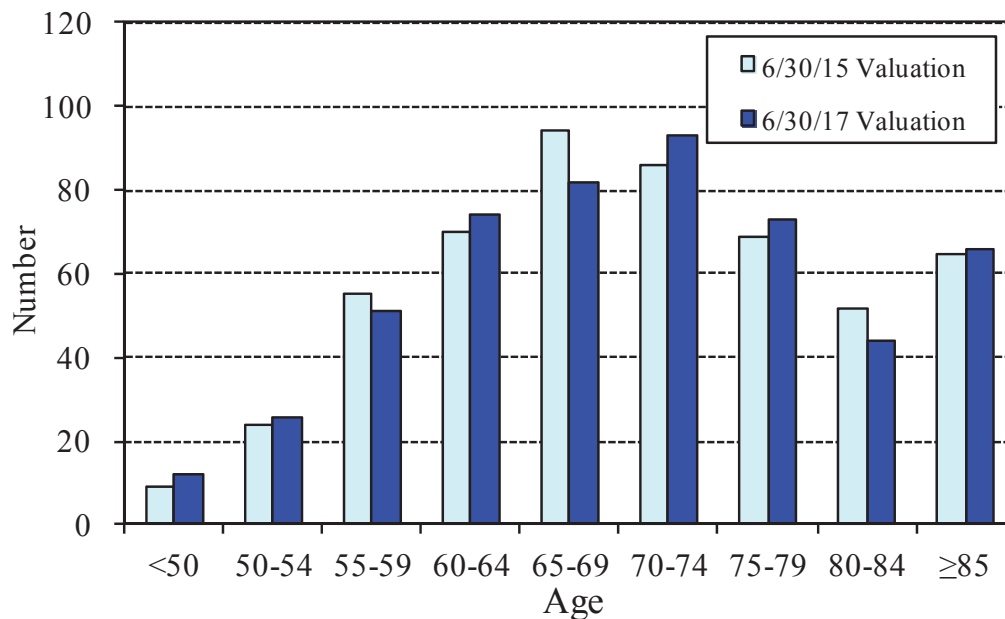
Fire

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

DATA SUMMARY

Retiree Age Distribution

Fire



DATA SUMMARY

Actives by Age and Service

June 30, 2017

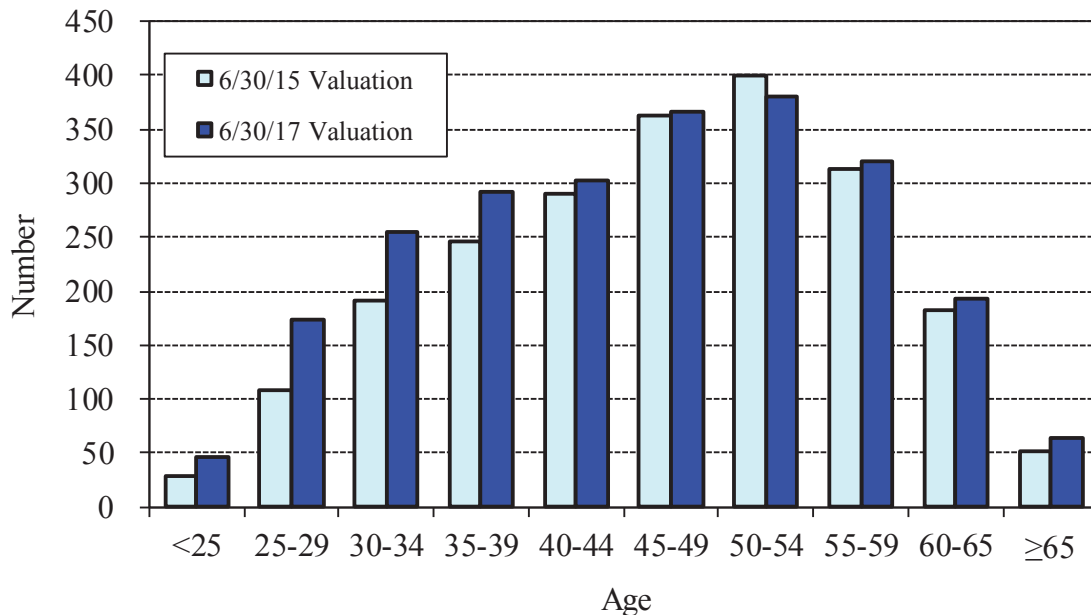
Miscellaneous

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

DATA SUMMARY

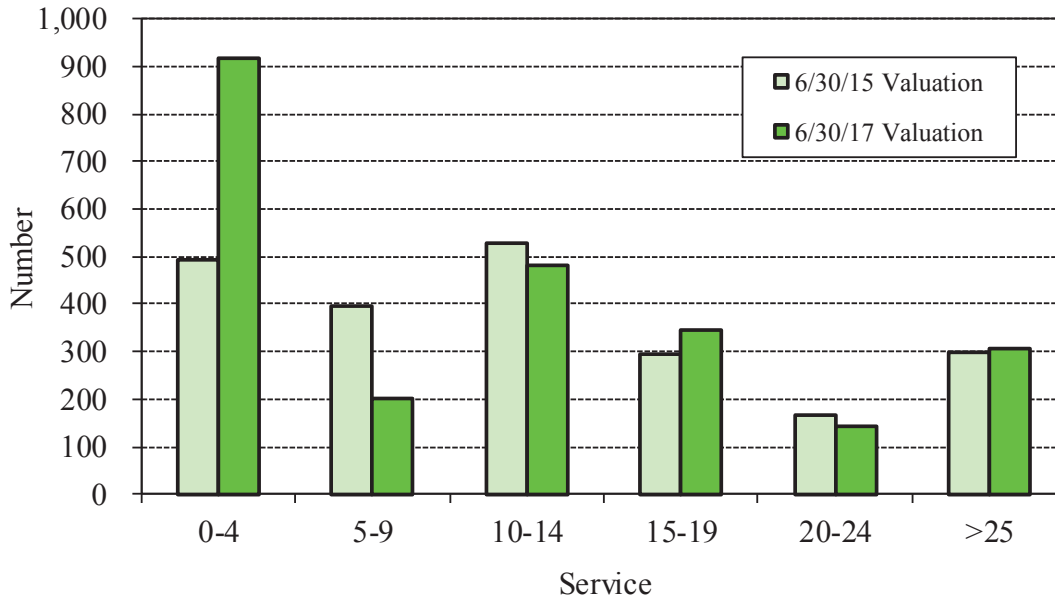
Active Age Distribution

Miscellaneous



DATA SUMMARY

Active Service Distribution
Miscellaneous



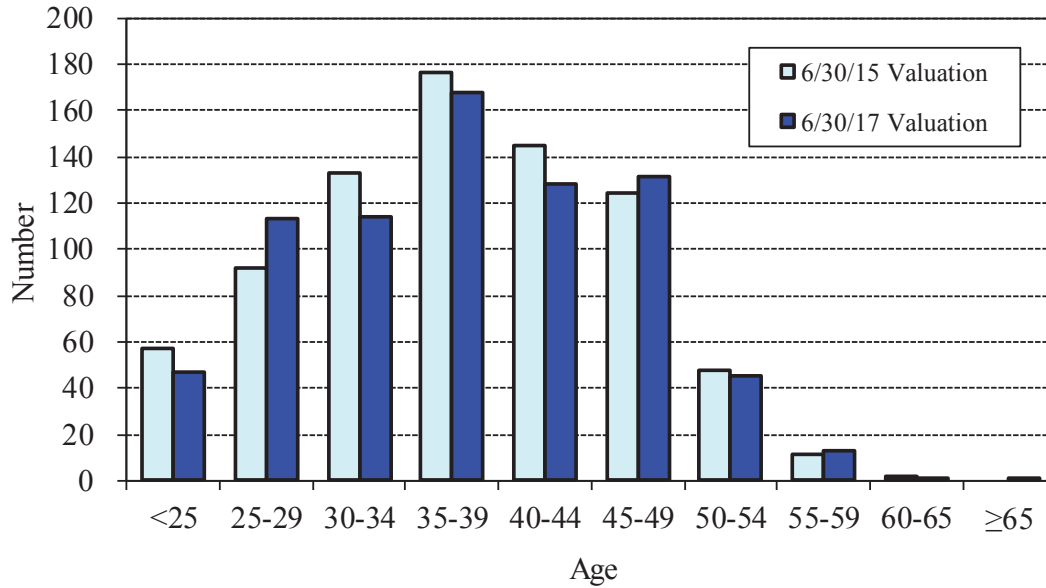
DATA SUMMARY

Actives by Age and Service
June 30, 2017
Police

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

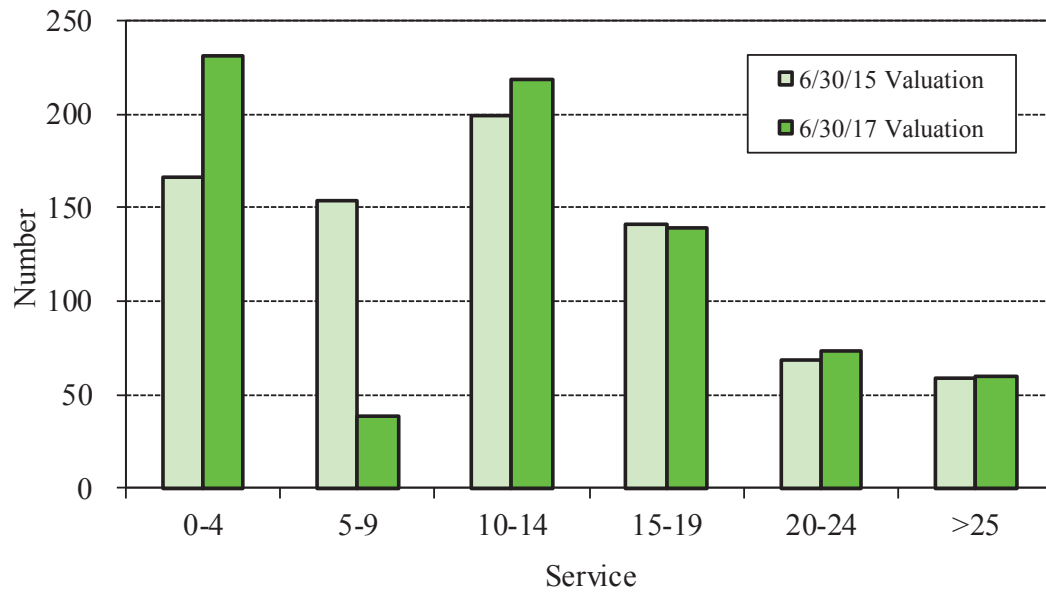
DATA SUMMARY

Active Age Distribution
Police



DATA SUMMARY

Active Service Distribution
Police



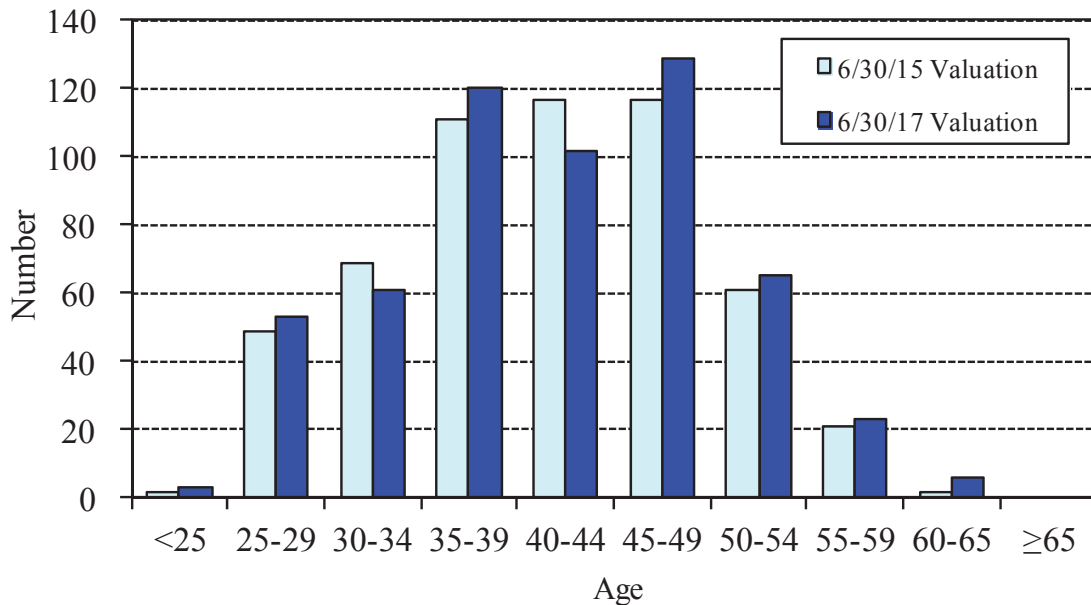
DATA SUMMARY

Actives by Age and Service
June 30, 2017
Fire

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

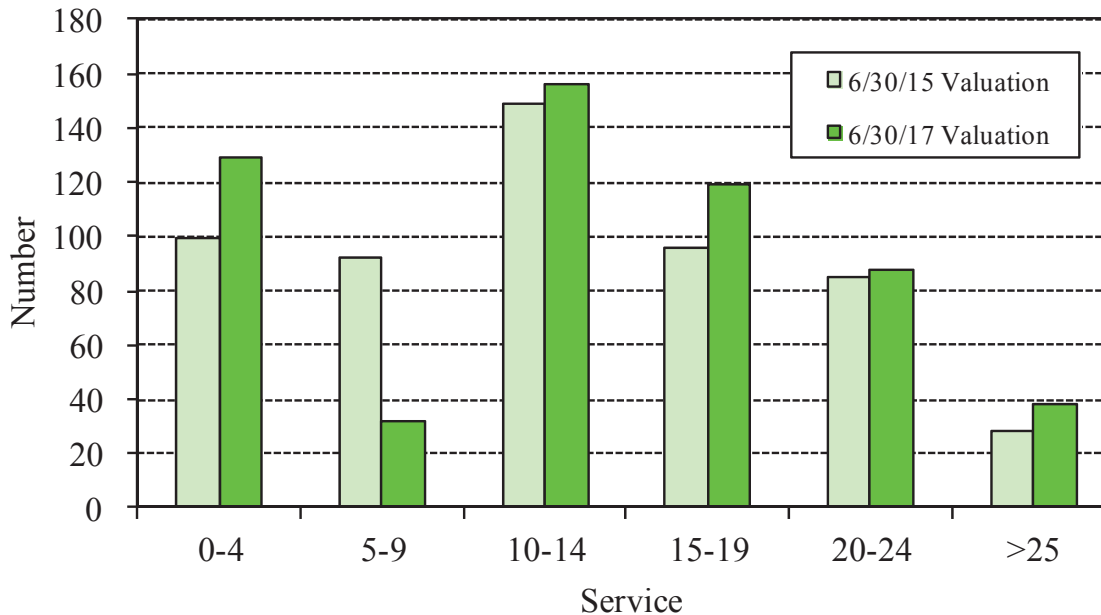
DATA SUMMARY

Active Age Distribution
Fire



DATA SUMMARY

Active Service Distribution
Fire



ACTUARIAL ASSUMPTIONS

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

ACTUARIAL ASSUMPTIONS

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

ACTUARIAL ASSUMPTIONS

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

ACTUARIAL ASSUMPTIONS

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

ACTUARIAL ASSUMPTIONS

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

ACTUARIAL ASSUMPTIONS

| | June 30, 2015 Valuation | June 30, 2017 Valuation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--------------------------------|--------------------------|------|-----|-----|-----|-----|-----|------|-----|--|------|---------------------|--|--|--|----|-----|-----|------|-------|-----|-----|-----|-----|-------|-----|-----|-----|-----|-------|----|-----|-----|-----|-------|----|----|----|----|--------|-----|-----|------|----|--------|-----|----|------|------|--------|----|----|----|------|
| <p>■ Participation at Retirement</p> | <p>■ Based on current retiree participation, varies by % of cash benefit earned at retirement:</p> <table border="1"> <thead> <tr> <th>% of Benefit Earned</th> <th>Participation Assumption</th> </tr> </thead> <tbody> <tr> <td align="center">0%</td> <td align="center">10%</td> </tr> <tr> <td align="center">50%</td> <td align="center">40%</td> </tr> <tr> <td align="center">75%</td> <td align="center">55%</td> </tr> <tr> <td align="center">100%</td> <td align="center">75%</td> </tr> </tbody> </table> | % of Benefit Earned | Participation Assumption | 0% | 10% | 50% | 40% | 75% | 55% | 100% | 75% | <p>■ Based on retirements during fiscal years 2015 to 2017, varies by % of cash benefit earned at retirement:</p> <table border="1"> <thead> <tr> <th rowspan="2">Plan</th> <th colspan="4">% of Benefit Earned</th> </tr> <tr> <th>0%</th> <th>50%</th> <th>75%</th> <th>100%</th> </tr> </thead> <tbody> <tr> <td>M&D&V</td> <td align="center">10%</td> <td align="center">23%</td> <td align="center">30%</td> <td align="center">35%</td> </tr> <tr> <td>D & V</td> <td align="center">10%</td> <td align="center">40%</td> <td align="center">35%</td> <td align="center">30%</td> </tr> <tr> <td>M & D</td> <td align="center">0%</td> <td align="center">10%</td> <td align="center">14%</td> <td align="center">20%</td> </tr> <tr> <td>M & V</td> <td align="center">0%</td> <td align="center">3%</td> <td align="center">0%</td> <td align="center">4%</td> </tr> <tr> <td>M Only</td> <td align="center">10%</td> <td align="center">12%</td> <td align="center">9.5%</td> <td align="center">7%</td> </tr> <tr> <td>D Only</td> <td align="center">10%</td> <td align="center">3%</td> <td align="center">1.5%</td> <td align="center">0.5%</td> </tr> <tr> <td>V Only</td> <td align="center">0%</td> <td align="center">0%</td> <td align="center">1%</td> <td align="center">0.5%</td> </tr> </tbody> </table> <p>M = Medical, D = Dental, V = Vision</p> | Plan | % of Benefit Earned | | | | 0% | 50% | 75% | 100% | M&D&V | 10% | 23% | 30% | 35% | D & V | 10% | 40% | 35% | 30% | M & D | 0% | 10% | 14% | 20% | M & V | 0% | 3% | 0% | 4% | M Only | 10% | 12% | 9.5% | 7% | D Only | 10% | 3% | 1.5% | 0.5% | V Only | 0% | 0% | 1% | 0.5% |
| % of Benefit Earned | Participation Assumption | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0% | 10% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>■ Pre 1/1/91 Inactive Vested Ret. Age</p> | <p>■ SCERS:</p> <ul style="list-style-type: none"> • Sect 399 – Age 62 • Sect 175 – Age 65 | <p>■ Same</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

ACTUARIAL ASSUMPTIONS

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

ACTUARIAL ASSUMPTIONS

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

ACTUARIAL ASSUMPTIONS

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

ACTUARIAL ASSUMPTIONS

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

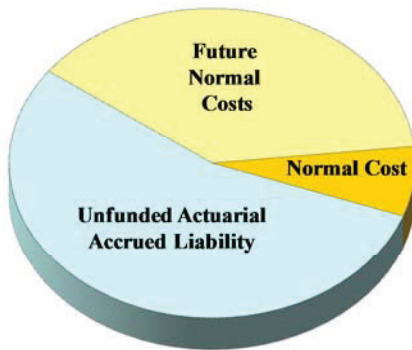
DEFINITIONS

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

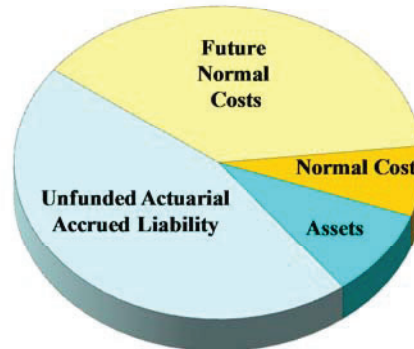
DEFINITIONS

Present Value of Benefits

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



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



DEFINITIONS

■ Terminology
Used in
Report

- AAL - Actuarial Accrued Liability
- AOC - Annual OPEB Cost
- ADC - Actuarially Determined Contribution
- ARC - Annual Required Contribution
- AVA - Actuarial Value of Assets
- EAN - Entry Age Normal Cost Method
- GASBS 45 - Governmental Accounting Standards Board Statement No. 45
- GASBS 75 - Governmental Accounting Standards Board Statement No. 75
- MVA – Market Value of Assets
- NC - Normal cost
- NOO - Net OPEB Obligation
- OPEB - Other (than pensions) Post Employment Benefits
- PVB - Present Value of Projected Benefits
- UAAL - Unfunded Actuarial Accrued Liability



**City of Sacramento
Retiree Healthcare Plan**

June 30, 2019 GASBS 75

Accounting Information

As of Measurement Date June 30, 2018

Based on the June 30, 2017 Actuarial Valuation

Mary Elizabeth Redding, Vice President
Catherine A. Wandro, Assistant Vice President
Daniel Park, Actuarial Analyst
Bartel Associates, LLC

October 3, 2019

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| Actuarial Certification | 19 |
| Supporting Calculations | 20 |
| Journal Entries | 31 |
| Crossover Test | 37 |

Applicable Dates

Applicable Dates and Periods

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

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



Note Disclosures

Plan Information

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



Note Disclosures

Expected Long-Term Rate of Return

| | Target Allocation* CERBT-Strategy 1 | Expected Real Rate of Return |
|--|--|---|
| ■ Asset Class Component | | |
| ● Global Equity | 57% | 4.82% |
| ● Fixed Income | 27% | 1.47% |
| ● TIPS | 5% | 1.29% |
| ● Commodities | 3% | 0.84% |
| ● REITs | 8% | 3.76% |
| ■ Assumed Long-Term Rate of Inflation | | 2.75% |
| ■ Expected Long-Term Net Rate of Return, Rounded | | 6.75% |

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

* Policy target effective on the measurement date (June 30, 2018). Changes to the target investment allocation effective October 1, 2018 do not have a significant impact on the expected long-term rate of return.



Note Disclosures

Covered Participants*

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

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

* As reported by the City.



Note Disclosures

Net OPEB Liability/(Asset)

(Amounts in 000's)

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



Note Disclosures

Changes in Net OPEB Liability/(Asset)

(Amounts in 000's)

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

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



Note Disclosures

Sensitivity of Net OPEB Liability/(Asset)

(Amounts in 000's)

■ **Changes in the Discount Rate**

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

■ **Changes in the Healthcare Trend Rate**

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



Note Disclosures

OPEB Expense for Fiscal Year

(Amounts in 000's)

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

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



Note Disclosures

Deferred Outflows/Inflows Balances at June 30, 2019

(Amounts in 000's)

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

* See page 20 for details.



Note Disclosures

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

(Amounts in 000's)

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



Note Disclosures

Significant Actuarial Assumptions Used for Total OPEB Liability

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

Note Disclosures

Significant Actuarial Assumptions Used for Total OPEB Liability

| Actuarial Assumption | June 30, 2018 Measurement Date |
|--|---|
| ■ Mortality Improvement | ■ Mortality projected fully generational with Society of Actuaries mortality improvement Scale MP-2016 |
| ■ Salary Increases | <ul style="list-style-type: none"> ■ Aggregate - 3% annually ■ Merit - CalPERS 1997-2011 Experience Study |
| ■ Medical Trend | <ul style="list-style-type: none"> ■ Non-Medicare - 7.5% for 2019, decreasing to an ultimate rate of 4.0% in 2076 ■ Medicare - 6.5% for 2019, decreasing to an ultimate rate of 4.0% in 2076 |
| ■ Healthcare Participation for Future Retirees | <ul style="list-style-type: none"> ■ Medical, dental, and/or vision coverage - varies from 0% to 40% based on percent of benefit earned at retirement ■ Assumptions based on study of recent retiree experience |

Note Disclosures

Changes Since June 30, 2017 Measurement Date

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

Required Supplementary Information

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

(Amounts in 000's)

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

Required Supplementary Information

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

(Amounts in 000's)

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



Required Supplementary Information

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

(Amounts in 000's)

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

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



Required Supplementary Information

Schedule of Employer Contributions

(Amounts in 000's)

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

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

** See page 20 for details.

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

As reported by the City.



Required Supplementary Information

**Notes to Schedule of Employer Contribution
Methods and Assumptions for
2018/19 Actuarially Determined Contribution**

| | |
|--------------------------|--|
| ■ Valuation Date | ■ June 30, 2017 |
| ■ Actuarial Cost Method | ■ Entry Age Normal, Level % of pay |
| ■ Amortization Method | ■ Level % of pay |
| ■ Amortization Period | ■ 20-year fixed period for 2018/19 |
| ■ Asset Valuation Method | ■ Investment gains and losses spread over 5-year rolling period |
| ■ Discount Rate | ■ 3.95% |
| ■ General Inflation | ■ 2.75% |
| ■ Medical Trend | ■ Non-Medicare - 7.5% for 2019, decreasing to an ultimate rate of 4.0% in 2076 ■ Medicare - 6.5% for 2019, decreasing to an ultimate rate of 4.0% in 2076 |
| ■ Mortality | ■ CalPERS 1997-2011 experience study |
| ■ Mortality Improvement | ■ Mortality projected fully generational with Society of Actuaries mortality improvement Scale MP-2016 |



Actuarial Certification

This report presents City of Sacramento Retiree Healthcare Plan 2018/19 disclosure under Governmental Accounting Standards Board Statement No. 75 (GASBS 75). The Journal Entries in this report are provided for the City's convenience and are not an actuarial communication and this actuarial certification does not apply to them.

The report provides information intended for reporting under GASBS 75, but may not be appropriate for other purposes. Information provided in this report may be useful to the City for the Plan's financial management. The total OPEB liability has been calculated from the June 30, 2017 actuarial valuation. Future valuations may differ significantly if the Plan's experience differs from our assumptions or if there are changes in Plan design, actuarial methods, or actuarial assumptions. The project scope did not include an analysis of this potential variation.

The June 30, 2017 valuation is based on Plan provisions and participant data provided by the City, and asset information, all of which we relied on and did not audit. We reviewed the census data for reasonableness. Additional information on participants included in the valuation and actuarial assumptions can be found in the June 30, 2017 funding actuarial valuation report. As the actuary, Bartel Associates has recommended the assumptions used in this report, and we believe they are reasonable.

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

Respectfully submitted,



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



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



October 3, 2019

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City of Sacramento

Supporting Calculations

Employer Contributions

(Amounts in 000's)

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

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

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



October 3, 2019

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City of Sacramento

Supporting Calculations

Average of the Expected Remaining Service Lives

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

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

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



Supporting Calculations

Recognition of Deferred Outflows/Inflows at June 30, 2019

Differences between Expected and Actual Experience

(Amounts in 000's)

| Fiscal Year | Initial Amt | Initial Recog Period | Amount Recognized in OPEB Expense for FY | | | | | | | Deferred Balances June 30, 2019 | |
|-------------|-------------|----------------------|--|-------|-------|-------|-------|-------|--------|---------------------------------|-----------|
| | | | 18/19 | 19/20 | 20/21 | 21/22 | 22/23 | 23/24 | 24/25+ | Outflows | (Inflows) |
| 17/18 | - | - | - | - | - | - | - | - | - | - | - |
| 18/19 | - | - | - | - | - | - | - | - | - | - | - |
| Total | | | - | - | - | - | - | - | - | - | - |



Supporting Calculations

Recognition of Deferred Outflows/Inflows at June 30, 2019

Changes of Assumptions

(Amounts in 000's)

| Fiscal Year | Initial Amt | Initial Recog Period | Amount Recognized in OPEB Expense for FY | | | | | | | Deferred Balances June 30, 2019 | |
|-------------|-------------|----------------------|--|---------|---------|---------|---------|---------|--------|---------------------------------|-----------|
| | | | 18/19 | 19/20 | 20/21 | 21/22 | 22/23 | 23/24 | 24/25+ | Outflows | (Inflows) |
| 17/18 | (24,429) | 6.1 | (4,005) | (4,005) | (4,005) | (4,005) | (4,005) | (399) | - | - | (16,419) |
| 18/19 | (30,845) | 6.1 | (5,057) | (5,057) | (5,057) | (5,057) | (5,057) | (5,057) | (503) | - | (25,788) |
| Total | | | (9,062) | (9,062) | (9,062) | (9,062) | (9,062) | (5,456) | (503) | - | (42,207) |



Supporting Calculations

Recognition of Deferred Outflows/Inflows at June 30, 2019

Projected Versus Actual Earnings on Investments

(Amounts in 000's)

| Fiscal Year | Initial Amt | Initial Recog Period | Amount Recognized in OPEB Expense for FY | | | | | | | Deferred Balances June 30, 2019 | |
|---------------------------------|-------------|----------------------|--|-------|-------|-------|-------|-------|--------|---------------------------------|-----------|
| | | | 18/19 | 19/20 | 20/21 | 21/22 | 22/23 | 23/24 | 24/25+ | Outflows | (Inflows) |
| 17/18 | (701) | 5.0 | (140) | (140) | (140) | (141) | - | - | - | - | (421) |
| 18/19 | (269) | 5.0 | (54) | (54) | (54) | (54) | (53) | - | - | - | (215) |
| Total | | | (194) | (194) | (194) | (195) | (53) | - | - | - | (636) |
| Net Deferred Outflows/(Inflows) | | | | | | | | | | - | (636) |

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

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

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



Supporting Calculations

Recognition of Deferred Outflows/Inflows in Future OPEB Expense

(Amounts in 000's)

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



Supporting Calculations

Components of GASBS 75 OPEB Expense

(Amounts in 000's)

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



Supporting Calculations

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

| | Dollar Amount | Expected Return | Portion of Year | Projected Earnings |
|--|----------------------|------------------------|------------------------|---------------------------|
| ■ Fiduciary Net Position (beginning of year) | \$ 26,445 | 6.75% | 100% | \$ 1,785 |
| ■ Employer contributions | 8,169 | 6.75% | 17% | 94 |
| ■ Employee contributions | 308 | 6.75% | 50% | 10 |
| ■ Benefit payments | - | 6.75% | 0% | - |
| ■ Administrative expenses | (51) | 6.75% | 50% | (2) |
| ■ Projected earnings | | | | <u>1,887</u> |

* The items on this page reflect trust activity only.



Supporting Calculations

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

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

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



Supporting Calculations

GASBS 75 Balance Equation

(Amounts in 000's)

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

Check:

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

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

Supporting Calculations

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Journal Entries

Employer Contributions

(Amounts in 000's)

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

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

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

Check 39,478 (39,478)



Journal Entries

Summary Journal Entries - OPEB Expense

(Amounts in 000's)

Following records the impact of current year OPEB expense

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

Check 21,858 (21,858)

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

** See page 35 for details.



Journal Entries

Ending Balances at June 30, 2019

(Amounts in 000's)

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

Check: 405,689 (405,689)

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



Journal Entries

Reconciliation of Deferred Outflows

Detail for page 32

(Amounts in 000's)

| Deferred Outflows | Opening Balance - Debit | Journal Entry - Debit | Journal Entry - (Credit) | Ending Balance - Debit |
|---|--------------------------------|------------------------------|---------------------------------|-------------------------------|
| ■ Differences between actual and expected experience | \$ - | \$ - | \$ - | \$ - |
| ■ Change in assumptions | - | - | - | - |
| ■ Differences between projected and actual earnings on plan investments | - | - | - | - |
| ■ Subtotal - actuarial deferrals | - | - | - | - |
| ■ Contributions after the Measurement Date | 21,072 | 18,406 | (21,072) | 18,406 |
| ■ Total Deferred Outflows | 21,072 | 18,406 | (21,072) | 18,406 |



Journal Entries

Reconciliation of Deferred Inflows

Detail for page 32
(Amounts in 000's)

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



Journal Entries

Reconciliation of Deferred Outflows/(Inflows)

Summary of Balances

(Amounts in 000's)

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

Deferred Outflows include contributions after the measurement date.



Crossover Test

Discount Rate Crossover Test

Projection of Contributions

(Amounts in 000's)

| Year | Payroll | ER Contrib. for Current EE | EE Contrib. for Current EE | Contrib. from Payroll of Future EE | Total Employer Contributions for Current Employees |
|------|------------|----------------------------|----------------------------|------------------------------------|--|
| 1 | \$ 294,510 | \$ 21,072 | \$ 308 | \$ 0 | \$ 21,380 |
| 2 | 289,359 | 18,162 | 303 | 0 | 18,465 |
| 3 | 284,049 | 16,905 | 278 | 0 | 17,183 |
| 4 | 278,159 | 17,672 | 265 | 0 | 17,937 |
| 5 | 271,908 | 18,291 | 251 | 0 | 18,542 |
| 6 | 265,118 | 18,895 | 238 | 0 | 19,133 |
| 7 | 257,504 | 19,714 | 225 | 0 | 19,939 |
| 8 | 249,126 | 20,488 | 212 | 0 | 20,700 |
| 9 | 239,334 | 21,193 | 198 | 0 | 21,391 |
| 10 | 229,113 | 21,959 | 184 | 0 | 22,143 |
| * | * | * | * | * | * |
| 25 | 70,306 | 24,702 | 34 | 0 | 24,735 |
| 26 | 62,195 | 23,756 | 28 | 0 | 23,785 |
| 27 | 54,284 | 22,825 | 23 | 0 | 22,848 |
| 28 | 46,605 | 21,147 | 18 | 0 | 21,165 |
| 29 | 39,079 | 19,774 | 14 | 0 | 19,789 |
| * | * | * | * | * | * |
| 85 | 0 | 0 | 0 | 0 | 0 |
| 86 | 0 | 0 | 0 | 0 | 0 |
| 87 | 0 | 0 | 0 | 0 | 0 |
| 88 | 0 | 0 | 0 | 0 | 0 |
| 89 | 0 | 0 | 0 | 0 | 0 |



Crossover Test

Discount Rate Crossover Test

Projection of Fiduciary Net Position

(Amounts in 000's)

| Year | Projected Beginning Fiduciary Net Position | Projected Total Contributions | Projected Benefit Payments | Projected Admin Expense | Projected Investment Earnings | Projected Ending Fiduciary Net Position |
|------|--|-------------------------------|----------------------------|-------------------------|-------------------------------|---|
| 1 | \$ 26,445 | \$ 21,380 | \$ 12,903 | \$ 51 | \$ 2,156 | \$ 37,027 |
| 2 | 37,027 | 18,465 | 14,890 | 19 | 2,437 | 43,021 |
| 3 | 43,021 | 17,183 | 16,184 | 22 | 2,358 | 46,355 |
| 4 | 46,355 | 17,937 | 17,214 | 23 | 2,548 | 49,603 |
| 5 | 49,603 | 18,542 | 18,108 | 25 | 2,737 | 52,750 |
| 6 | 52,750 | 19,133 | 19,005 | 26 | 2,919 | 55,770 |
| 7 | 55,770 | 19,939 | 20,143 | 28 | 3,085 | 58,623 |
| 8 | 58,623 | 20,700 | 21,261 | 29 | 3,239 | 61,272 |
| 9 | 61,272 | 21,391 | 22,340 | 31 | 3,382 | 63,675 |
| 10 | 63,675 | 22,143 | 23,498 | 32 | 3,505 | 65,794 |
| * | * | * | * | * | * | * |
| 25 | 44,270 | 24,735 | 33,348 | 22 | 1,863 | 37,497 |
| 26 | 37,497 | 23,785 | 32,910 | 19 | 1,420 | 29,773 |
| 27 | 29,773 | 22,848 | 32,492 | 15 | 913 | 21,028 |
| 28 | 21,028 | 21,165 | 31,329 | 11 | 362 | 11,215 |
| 29 | 11,215 | 19,789 | 30,478 | 6 | 0 | 520 |
| * | * | * | * | * | * | * |
| 85 | 0 | 0 | 4 | 0 | 0 | 0 |
| 86 | 0 | 0 | 2 | 0 | 0 | 0 |
| 87 | 0 | 0 | 2 | 0 | 0 | 0 |
| 88 | 0 | 0 | 1 | 0 | 0 | 0 |
| 89 | 0 | 0 | 1 | 0 | 0 | 0 |



Crossover Test

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

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

