

State Of California Retiree Health Benefits Program

GASB Nos. 74 and 75 Actuarial Valuation Report
As of June 30, 2018



May 15, 2019

The Honorable Betty T. Yee
California State Controller
300 Capitol Mall, Suite 1850
Sacramento, California 95814

Dear Controller Yee:

Submitted in this report are the results of our actuarial valuation as of June 30, 2018, of the liabilities associated with Other Postemployment Benefits (OPEB), including retiree healthcare benefits, provided to statewide employees through the programs sponsored by the State of California as administered by the California Public Employees Retirement System (CalPERS) and the California Department of Human Resource (CalHR). This report was prepared at the request of the State Controller's Office (SCO) for the purpose of satisfying the State of California's financial reporting requirements.

The actuarial calculations were prepared for purposes of complying with the requirements of Statements No. 74 and 75 of the Governmental Accounting Standards Board (GASB). The calculations reported herein have been made on a basis consistent with our understanding of these accounting standards. This report also provides actuarial funding costs assuming a full-funding policy and a full-funding interest rate of 7.00 percent.

Determinations of the liability associated with the benefits described in this report for purposes other than those stated may produce significantly different results. This report may be provided to parties other than the SCO only in its entirety and only with the permission of the SCO. GRS is not responsible for unauthorized use of this report.

The actuarial valuation report provides the following information:

- An actuarial valuation of plan liabilities as of June 30, 2018, using census data as of June 30, 2018;
- A reconciliation of Total OPEB Liability from June 30, 2017, to June 30, 2018;
- The development of OPEB expense for the State's fiscal year end June 30, 2019, using a measurement date of June 30, 2018;
- The deferred inflows and outflows applicable to year end June 30, 2018;
- Disclosure of certain Required Supplementary Information such as the impact of a percentage point change on the discount rate or the ultimate healthcare trend rate;
- Support of the discount rate used to develop the Total OPEB Liability; and
- Development of the Actuarially Determined Contribution, actuarial accrued liability and normal cost assuming a full-funding interest rate of 7.00 percent.

The actuarial valuation was based on information furnished by the SCO, CalPERS and CalHR concerning retiree healthcare benefits, members' census and financial data. Data was reviewed for reasonableness and internal consistency but was not audited. We are not responsible for the accuracy or completeness of the information received to produce this actuarial valuation. The actuarial assumptions and methods used in this actuarial valuation are consistent with the CalPERS OPEB assumption model and with the pension assumptions that will be used in the 2018 actuarial valuations of the CalPERS statewide pension programs. The actuarial assumptions and methods were approved by the SCO.

To the best of our knowledge, the information contained in this report is accurate and fairly presents the actuarial position of the Retiree Healthcare Benefit Program sponsored by the State of California as of June 30, 2018. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

This report should not be relied on for any purpose other than the purpose stated.

The signing actuaries are independent of the plan sponsor.

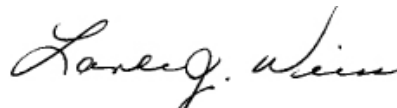
Alex Rivera and Lance J. Weiss are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions herein.

Respectfully submitted,

Gabriel, Roeder, Smith & Company



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EXECUTIVE SUMMARY

Executive Summary

Introduction

The Governmental Accounting Standards Board (GASB) issued accounting standards, Statements No. 43 and 45, relating to Other Postemployment Benefits (OPEB). Under these statements, public employers sponsoring and subsidizing retiree healthcare benefit programs recognized the cost of such benefits on an accrual basis. GASB No. 45 first became effective for the State's fiscal year end June 30, 2008, and required:

- Recognition of the cumulative difference between the annual expense and employer contributions; i.e., Net OPEB Obligation, on the balance sheet.
- Disclosure of the unfunded actuarial liability off the balance sheet as part of Required Supplementary Information.
- Development of an actuarial liability and normal cost using a discount rate based on the funding policy and expected return on assets. Since the State financed retiree benefits primarily on a pay-as-you-go basis (PayGO), the discount rate assumption was set to 4.25 percent for the most recent GASB Statements No. 43 and 45 actuarial valuations.
- Development of annual expense, or Annual OPEB Cost, based on the normal cost plus a 30-year amortization of the unfunded actuarial liability, with certain adjustment for changes in the Net OPEB Obligation.

GASB Statements No. 43 and 45 were replaced by GASB Statements No. 74 and 75. GASB No. 74 first applied to plan reporting for the plan year end June 30, 2017. GASB No. 75 first applied to the State's reporting for the fiscal year end June 30, 2018. GASB No. 75 requires:

- Recognition of the unfunded actuarial liability; i.e., Net OPEB Liability, on the balance sheet.
- Development of an actuarial liability and normal cost using a blended discount rate which is based on a 20-year general obligation bond index if benefits are financed on a pay-as-you-go basis, and the expected return on trust assets if pre-funding assets are available to pay benefits.
- Development of an Annual OPEB Expense based on the normal cost plus an amortization of changes in the unfunded actuarial liability due to demographic experience, assumption changes, plan changes and investment experience. Demographic experience and assumptions changes are amortized over the average remaining working lifetime of all participants, investment experience is amortized over five years, and plan changes are recognized immediately.

GASB Statement No. 75 is expected to increase the balance sheet liability because the entire unfunded actuarial liability is recognized on the balance sheet. In addition, the balance sheet liability is projected to be more volatile because the unfunded actuarial liability will be based on a blended discount rate that changes at each measurement date as the 20-year general obligation bond index changes.

The following section contains more background information on GASB Nos. 74 and 75.

GASB Statements No. 74 and 75

On June 2, 2015, the GASB released two new accounting standards applicable to OPEB. GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, addresses reporting by OPEB plans that administer benefits on behalf of governments. GASB Statement No. 75,

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Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions, addresses reporting by governments who provide OPEB to their employees and for governments who finance OPEB for employees of other governments.

Statement No. 74

Statement No. 74 replaces GASB Statement No. 43, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*. Statement No. 74 addresses the financial reports of defined benefit OPEB plans that are administered through trusts that meet specified criteria.

The Statement requires a statement of fiduciary net position and a statement of changes in fiduciary net position. The Statement also requires more extensive note disclosures and Required Supplementary Information (RSI) relating to the measurement of the OPEB liabilities for which assets have been accumulated, including information about the annual money-weighted rates of return on plan investments.

Statement No. 74 is first effective for the plan year beginning July 1, 2016.

Statement No. 75

Statement No. 75 replaces GASB Statement No. 45. Statement No. 75 requires governments to recognize an OPEB liability on the face of the financial statements.

Statement No. 75 requires governments to present more extensive note disclosures and Required Supplementary Information (RSI) about their OPEB liabilities. Among the new note disclosures is a description of the effect on the reported OPEB liability of using a discount rate and a healthcare cost trend rate that are one percentage point higher and one percentage point lower than assumed by the government. Also, the Statement changes the way in which the discount rate for a Plan that is being pre-funded is calculated. The new RSI includes a schedule showing the causes of increases and decreases in the Total OPEB liability and a schedule comparing a government's actual OPEB contributions to its contribution requirements.

Statement No. 75 is first effective for the fiscal year beginning July 1, 2017.

Impact of New Accounting Standards

Under the new accounting standards, the annual expense and OPEB liability for plans funded on a pay-as-you-go basis will be more volatile because the discount rate used to develop the normal costs and actuarial accrued liability is based on a municipal bond index.

The municipal bond index rate is 3.56 percent as of June 30, 2017, and 3.62 percent as of June 30, 2018. Plan sponsors who partially pre-fund benefits must discount liabilities using a "blended discount rate" that reflects the municipal bond rate index if pre-funding assets are not available to pay benefits and the long-term expected return on assets if pre-funding assets are available to pay benefits.

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The State and employees in all bargaining units and Judicial employees have agreed to pre-fund retiree healthcare benefits. The State and all active members make contributions into separate accounts for each respective bargaining unit and Judicial employee group. Contributions are based on a percentage of pensionable compensation with the ultimate goal of contributing 100 percent of the actuarially determined normal cost shared equally between the State and employees. Pre-funding contributions and investment income are not available to pay plan benefits until the earlier of 2046 or the year that actuarial accrued liabilities are fully funded.

Plan assets are currently held in the California Employers' Retiree Benefit Trust (CERBT) and the State has adopted investment Strategy 1. Based on information provided on CalPERS' website, the CERBT Strategy 1 investment portfolio is expected to earn approximately 7.00 percent per year over the long term.

As of June 30, 2018, total assets in the CERBT accounts, for 12 bargaining units and Judicial employees, are approximately \$874 million.

The sponsor also makes pay-as-you-go contributions for benefits paid to current retirees and the portion of benefits paid to future retirees that are not pre-funded.

Plan Benefits

The State of California provides medical, prescription drug and dental benefits (healthcare benefits) to retired statewide employees through a single-employer defined benefit plan. The State participates in the CERBT, an agent multiple-employer plan consisting of an aggregation of single-employer plans, including over 531 contributing employers.

The State also offers life insurance, long-term care and vision benefits to retirees; however, because these benefits are completely paid for by retirees, there is no GASB Statements No. 74 or 75 liability to the State on behalf of such benefits.

We are not aware of any other OPEB offered to statewide employees that are subsidized by the State of California, and subject to GASB Statements No. 74 and 75.

The State and employees in most bargaining units and Judicial employees have agreed to changes in benefits if an employee is hired after certain effective dates. The key benefit changes include:

- Reducing the "100/90" State contribution formula to "80/80";
- Grading the State contribution if the member has less than 25 years of Credited Service at retirement;
- For Medicare eligible members, eliminating the Medicare Part B subsidy; and
- For Medicare eligible members, developing the "80/80" State contribution based on the premium rates for only Medicare members.

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Key Definitions

Following is a list of key terms used for the GASB Statements No. 74 and 75 actuarial valuations:

- 1) **Present value of future healthcare benefits** is the present value of benefits expected to be paid to current and future retirees.
- 2) **Actuarial Accrued Liability** or **Total OPEB Liability** is the present value of future retiree healthcare benefits attributable to employee service earned in prior fiscal years using the **Entry Age Normal Cost Method**.
- 3) **Normal Cost** or **Service Cost** is the present value of future benefits earned by employees during the current fiscal year.
- 4) **Actuarially Determined Contribution or ADC** equals the Normal Cost plus an amortization of the difference between the Actuarial Accrued Liability and any assets available to pay benefits.
- 5) **Plan Fiduciary Net Position** equals the market value of plan assets available to pay plan benefits.
- 6) **Net OPEB Liability** equals the difference between **Total OPEB Liability** and the **Plan Fiduciary Net Position**. The **Net OPEB Liability** is recognized directly on the plan sponsor's balance sheet.
- 7) **Annual OPEB Expense** equals:
 - a. **Service Cost**
 - b. Plus administrative costs
 - c. Plus interest on the **Total OPEB Liability**
 - d. Less member contributions
 - e. Less expected investment income
 - f. Plus the change in **Total OPEB Liability** due to changes in benefit provisions
 - g. Plus the amortization of the change in **Total OPEB Liability** due to non-investment experience
 - h. Plus the amortization of the change in **Total OPEB Liability** due to changes in assumptions
 - i. Plus the amortization of investment gains and losses
 - j. Plus other changes in the **Plan Fiduciary Net Position**
- 8) Changes in **Total OPEB Liability** due to non-investment experience or change in assumptions are amortized on a straight-line basis using the expected future working years including members who are inactive or retired.
- 9) Investment gains and losses are amortized using a five-year straight line period.
- 10) Changes in **Total OPEB Liability** due to plan changes are recognized immediately as a component of the **Annual OPEB Expense**.
- 11) **Deferred Inflows or Outflows** are based on the changes in **Net OPEB Liability** due to demographic experience, investment experience or changes in assumptions that have not yet been recognized as a component of the **Annual OPEB Expense**.
- 12) **Blended Discount Rate** is based on a long-term municipal bond rate if assets are not available to pay benefits and the portfolio's long-term expected return on assets if assets are available to pay benefits.
- 13) The **Individual Entry Age Normal Cost Method** spreads costs as a level percentage of payroll.
- 14) Under a **Closed Group** actuarial cost method, actuarial present values associated with future entrants are not considered.

Please note that the Actuarially Determined Contribution (ADC) represents the annual employer contribution that along with member contributions and investment income is projected to fully fund the

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program over a reasonable period such as 30 years. The ADC is developed assuming the sponsor will: (i) make the targeted pre-funding contributions on a timely basis (ii) contributions are deposited in an irrevocable qualified trust for the exclusive benefit of plan members, (iii) contributions in excess of the pay-as-you-go amount are invested in a diversified investment portfolio with a defined investment policy, and (iv) the discount rate used to develop the **Actuarial Accrued Liability** and **Normal Cost** recognizes the expected return of the entire portfolio.

The **Annual OPEB Expense** is used solely for accounting under GASB No. 75 and is not appropriate for developing the employer's pre-funding contribution amount such as the ADC. The **Annual OPEB Expense** is not a good proxy for the ADC because the GASB Statement No. 75 amortization and **Blended Discount Rate** requirements will produce too much volatility.

Based on the State's funding policy, we understand the goal is to make additional normal cost contributions in excess of the pay-as-you-go contributions, for each respective actuarial valuation group, such that the program is projected to be fully funded in approximately 30 years. As of June 30, 2018, 22 out of 25 membership groups or approximately 78 percent of the active covered members have entered into pre-funding arrangements with the State.

For GASB Statements No. 74 and 75 reporting purposes, if the membership group has not entered into a pre-funding arrangement with the State, we assumed a discount rate of 3.62 percent, which is equal to municipal bond rate at June 30, 2018. For membership groups with pre-funding arrangements, we assumed a blended discount reflecting the municipal bond rate of 3.62 percent if pre-funding assets are not available to pay benefits and 7.00 percent if pre-funding assets are available to pay benefits.

Other key assumptions such as healthcare inflation, projected healthcare claims, the likelihood an employee retires, elects healthcare coverage and survives after retirement will also have an impact on costs. The Current Overview section of the report provides more details on other actuarial valuation assumptions.

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The following table shows key valuation results as of June 30, 2018, and June 30, 2017.

KEY VALUATION RESULTS (\$ IN 000'S)		
GASB No. 75	June 30, 2018	June 30, 2017
Total OPEB Liability	\$ 86,469,239	\$ 91,507,618
Net Fiduciary Position	\$ 874,286	\$ 500,035
Net OPEB Liability	\$ 85,594,953	\$ 91,007,583
Service Cost	\$ 3,477,466	\$ 4,009,501
Annual OPEB Expense	\$ 3,936,771	\$ 5,658,249
Employer Contribution	\$ 2,534,168	\$ 2,429,171
Total Actuarially Determined Contribution (ADC)	\$ 4,672,787	\$ 4,681,881

Basis of Actuarial Valuation

The preceding actuarial valuation results were based on:

- The provisions of GASB Statements No. 74 and 75.
- The provisions of Actuarial Standard of Practice No. 6, *Measuring Retiree Group Benefit Obligations*.
- Census information as of June 30, 2018, provided by the California Public Employees Retirement System (CalPERS) and the California Department of Human Resource (CalHR).
- Claims, enrollment data and average costs provided by CalPERS and CalHR for the period from January 1, 2015, to May 31, 2018.
- Premium data through calendar year 2019, provided by CalPERS and CalHR.
- Employer Group Waiver Plan (EGWP) information provided by CalPERS.
- Medicare Advantage design and premium rate information provided by CalPERS.
- Plan information provided by CalPERS and CalHR.
- Demographic actuarial assumptions consistent with those that will be used in the 2018 actuarial valuations of the CalPERS statewide pension programs.
- Retiree healthcare actuarial valuation assumptions and methods consistent with the CalPERS OPEB assumption model.
- Healthcare related actuarial valuation assumptions such as healthcare plan participation, coverage and continuance, aging factors, adjustments for disabled members and adjustments for children of current retirees and survivors are based on the experience study for the period from July, 1, 2007, to June 30, 2014, first effective with the actuarial valuation as of June 30, 2015.
- Other healthcare, economic and demographic assumptions such as the discount rate, healthcare inflation, healthcare claim costs and healthcare plan participation are based on recommendations from Gabriel, Roeder, Smith & Company as approved by the SCO.

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- The latest developments in Federal healthcare reform.
- For purposes of developing the ADC, the Unfunded Actuarial Accrued Liability (UAAL) is amortized over a 30-year closed period from June 30, 2017, as a level percent of pay.

The actuarial valuation was prepared under the supervision of Members of the American Academy of Actuaries who satisfy the Qualification Standards of the American Academy of Actuaries to render an actuarial opinion on the actuarial valuation of retiree healthcare benefits.

The remainder of the report is an integral component of the actuarial valuation and includes:

- An overview of the current GASB Statements No. 74 and 75 requirements in effect on June 30, 2018.
- The basis of the actuarial assumptions and methods used in this actuarial valuation.
- Development of the ADC by actuarial valuation group using a full-funding rate of 7.00 percent.
- GASB No. 74 information applicable to the plan's fiscal year end June 30, 2018.
- GASB No. 75 information applicable to the sponsor's fiscal year end June 30, 2019.
- Additional details on the census, plan provisions, assumptions and methods used to prepare the actuarial valuation.

SECTION A

CURRENT OVERVIEW

Summary of GASB Accounting Standards

Accounting Standard

For other postemployment benefit (OPEB) plans that are administered through trusts or equivalent arrangements, Governmental Accounting Standards Board (GASB) Statement No. 74, “Financial Reporting for Postemployment Benefit Plans other than Pension Plans,” replaced the requirements of GASB Statement No. 43, “Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans.” GASB Statement No. 74 establishes standards of financial reporting for separately issued financial reports of state and local government OPEB plans.

GASB Statement No. 75 replaced the requirements of Statements No. 45, Accounting and Financial Reporting by Employers for Postemployments Benefits Other Than Pensions, as amended, and No. 57, OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans, for OPEB.

GASB Statements No. 74 and 75 are effective for fiscal years beginning after June 15, 2016, and June 15, 2017, respectively.

The following discussion provides a summary of the information that is required to be disclosed under these accounting standards. A number of these disclosure items are provided in this report. However, certain non-actuarial information, such as notes regarding accounting policies and investments, is not included in this report. As a result, the plan sponsor will be responsible for preparing and disclosing the non-actuarial information needed to comply with these accounting standards.

Plan Financial Statements

GASB Statement No. 74 requires defined benefit OPEB plans which are administered as trusts or equivalent arrangements to present two financial statements: a statement of fiduciary net position and a statement of changes in fiduciary net position. The statement of fiduciary net position presents the assets and liabilities of the OPEB plan at the end of the OPEB plan’s reporting period. The statement of changes in fiduciary net position presents the additions, such as contributions and investment income, and deductions, such as benefit payments and expense, and net increase or decrease in the fiduciary net position.

GASB Statement No. 75 requires state and local government employers to recognize the Net OPEB Liability and the Annual OPEB Expense on their financial statements, and disclose deferred outflows and inflows for changes in Net OPEB Liability not recognized in the Annual OPEB Expense. The Net OPEB Liability is the difference between the Total OPEB Liability and the plan’s fiduciary net position. In traditional actuarial terms, this is analogous to the actuarial accrued liability less the market value of assets.

The Annual OPEB Expense equals the Service Cost, less member contributions less the expected return on assets plus an amortization of changes in the Net OPEB liability due to demographic experience, investment performance, assumption changes and plan changes.

Current Overview

The GASB Statement No. 74 information contained in this report is based on an actuarial valuation date of June 30, 2018, and a measurement date of June 30, 2018.

For GASB Statement No. 75 reporting purposes, the plan sponsor's financial reporting for fiscal year end June 30, 2019, will be based on a measurement date of June 30, 2018.

GASB Statement No. 75 requires that employer contributions made to the OPEB plan subsequent to the measurement date and before the end of the employer's reporting period should be reported as a deferred outflow of resources.

The information contained in this report does not incorporate any employer contributions made subsequent to the measurement date of June 30, 2018.

Notes to Financial Statements

GASB Statement No. 75 requires the notes of the employer's financial statements to disclose the annual OPEB expense, the OPEB plan's liabilities and assets, and deferred outflows and inflows of resources related to OPEB.

GASB Statement Nos. 74 and 75 require the notes of the financial statements for the Plan and Plan Sponsor to include certain additional information. The list of disclosure items should include:

- The name of the OPEB plan, the administrator of the OPEB plan and the identification of whether the OPEB plan is a single-employer, agent or cost-sharing OPEB plan;
- A description of the benefits provided by the plan;
- A brief description of changes in benefit terms or assumptions that affected the measurement of the total OPEB liability since the prior measurement date;
- The number of plan members by category and if the plan is closed;
- A description of the plan's funding policy, including member and employer contribution requirements;
- The OPEB plan's investment policies;
- The OPEB plan's fiduciary net position and the net OPEB liability;
- The impact to net OPEB liability of changing the discount rate by one percentage point;
- The impact to the net OPEB liability of changing the healthcare trend rate by one percentage point;
- Significant assumptions and methods used to calculate the total OPEB liability;
- Inputs to the discount rates; and
- Certain information about mortality assumptions and the dates of experience studies.

OPEB plans that are administered through trusts or equivalent arrangements are required to disclose additional information in accordance with GASB Statement No. 74. This information includes:

- The composition of the OPEB plan's Board and the authority under which benefit terms may be amended;
- A description of how fair value is determined;

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- Information regarding certain reserves and investments, including concentrations of investments greater than or equal to 5 percent, receivables and insurance contracts excluded from plan assets; and
- Annual money-weighted rate of return.

Required Supplementary Information

GASB Statement No. 74 requires a 10-year fiscal history of:

- Sources of changes in the net OPEB liability;
- Information about the components of the net OPEB liability and related ratios, including the OPEB plan's fiduciary net position as a percentage of the total OPEB liability, and the net OPEB liability as a percent of covered-employee payroll;
- Comparison of the actual employer contributions to the actuarially determined contributions, if applicable, based on the plan's funding policy; and
- For plans with an actuarially determined contribution, the schedule covering each of the 10 most recent fiscal years of the actuarially determined contribution, contributions to the OPEB plan and related ratios.

Frequency and Timing of the Actuarial Valuation

An actuarial valuation to determine the total OPEB liability is required to be performed at least once every two years. For the employer's financial reporting purposes, the net OPEB liability and OPEB expense should be measured as of the employer's "measurement date," which may not be earlier than the employer's prior fiscal year end-date. If the actuarial valuation used to determine the total OPEB liability is not calculated as of the measurement date, the total OPEB liability is required to be rolled forward from the actuarial valuation date to the measurement date.

Single Discount Rate

Projected benefit payments are required to be discounted to their actuarial present values using a Single Discount Rate that reflects (1) a long-term expected rate of return on OPEB plan investments (to the extent that the plan's fiduciary net position is projected to be sufficient to pay benefits), and (2) a tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

The tax-exempt municipal bond rate was based on Fidelity's "20-Year Municipal GO AA Index" as of each measurement date. This index represents fixed-income municipal bonds with 20 years to maturity and is constructed using option-adjusted analytics for a diverse group of 10,000 tax-exempt securities. The Fidelity Index rates are 3.56 percent as of June 30, 2017, and 3.62 percent as of June 30, 2018.

Actuarial Assumptions

The actuarial assumptions used to value the actuarial liabilities are outlined in detail in Sections E and F. The actuarial assumptions include healthcare related assumptions such as: trend rates, participation

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rates and per capita claim costs, and pension related assumptions such as: termination rates, disability rates, retirement rates and mortality rates.

The healthcare related assumptions are based on an Experience Review for the period July 1, 2007 to June 30, 2014, performed by GRS and were first adopted beginning with the June 30, 2015, actuarial valuation. The pension related assumptions are based on an Experience Review performed by CalPERS and were first adopted beginning with the June 30, 2018, actuarial valuation.

Future Uncertainty or Risk

Future results may differ from those anticipated in this actuarial valuation. Reasons include, but are not limited to:

- Claims experience differing from expected;
- Medical trend experience differing from expected;
- Changes in the healthcare plan designs offered to active and retired members;
- Changes in healthcare related costs due to recent experience; and
- Participant behavior differing from expected; e.g.,
 - Elections at retirement;
 - One-person versus two-person coverage elections; and
 - Timing of retirement or termination.

Benefits Valued

The benefit provisions that were valued are described in Section C. The actuarial valuation is required to be performed on the current benefit terms and existing legal agreements. Consideration is to be given to the written plan document as well as other communications between the employer and plan members and an established pattern of practice for cost sharing. The summary of major plan provisions is designed to outline principal plan benefits.

Assumptions and Methods Impacting the Actuarial Valuation

Healthcare Related Assumption Changes

GRS performed a review of the healthcare related actuarial assumptions used to value the actuarial liabilities associated with the retiree healthcare benefits provided to statewide employees through the programs sponsored by the State of California as administered by CalPERS and CalHR. The primary purpose of the study was to determine the continued appropriateness of certain healthcare related actuarial assumptions by comparing actual experience to expected experience. The study was based on healthcare census information; claims experience data and actuarial valuations for the period from July 1, 2007, to June 30, 2014. The actuarial assumptions determined by this study were first used for the GASB Statements No. 43 and 45 actuarial valuations effective as of June 30, 2015. For the actuarial valuation as of June 30, 2018, assumptions, including per capita healthcare cost and healthcare trend rates, were updated based on experience through June 30, 2018.

Discount Rate Assumption

The discount rate assumption depends on the purposes of the measurement.

The sponsor's pre-funding policy provides for a 50 percent cost sharing of the normal cost, between active members and the plan sponsor, graded over several years since the adoption of the pre-funding policy. Pre-funding normal cost contributions are deposited into the CERBT and are expected to earn 7.00 percent per year. Pre-funding normal costs and investment income are not available to pay benefits until the earlier of 2046 or the year that the total actuarial liability is fully funded. The sponsor finances benefits on a pay-as-you-go basis prior to the year that pre-funding assets are available to pay benefits. For purposes of developing the full-funding normal cost, actuarial liability and actuarially determined contribution, a discount rate of 7.00 percent was used.

The discount rate used to develop the GASB Nos. 74 and 75 Total OPEB Liability and Service Cost was based on a blended rate for each respective actuarial valuation group comprised of 3.62 percent if pre-funding assets are not available to pay benefits and 7.00 percent if pre-funding assets are available to pay benefits.

Healthcare Trend Assumptions

One of the key assumptions influencing costs is the assumed growth or trend in healthcare costs. The healthcare trend assumption for OPEB actuarial valuations spans over the lifetime of a covered retiree, which could extend to over 30 years. This is in contrast to the short-term healthcare inflation used to develop premiums for the next fiscal year. This long-term healthcare assumption is by far the most difficult to set.

Actuaries generally compare the growth in general inflation, wages, healthcare costs and other goods and services when setting the healthcare trend assumption. For example, the actuary may compare the historical experience of national healthcare expenditures to the Gross Domestic Product (GDP). Healthcare inflation may be expressed as general inflation plus a component for healthcare costs.

Current Overview

The long-term healthcare trend is generally lower than the short-term healthcare trend used to update premiums and expected claims in the following fiscal year because such short-term increases are generally not sustainable in the long term. That is, if healthcare benefit costs are assumed to increase by 9.00 percent per year in the long term while the cost for other goods and services increase at a rate less than 3.00 percent per year, then in the long run the general economy would include a disproportionate share of expenditures allocated to healthcare benefits. Consequently, long-term retiree healthcare actuarial models generally assume that the initial trend rate will eventually grade down to a more sustainable level. For this valuation, the 2019 trend rates are based on actual premium increases from calendar 2018 to 2019. Based on a review of supporting documentation provided by CalPERS and a review of various publically available trend studies, the 2019 trend rate for the PPO per capita claims costs is assumed to be 5.00 percent for Pre-Medicare costs and 4.00 percent for Post-Medicare costs. For 2020 and beyond we assumed an initial healthcare trend rate of 7.50 percent for Pre-Medicare costs, decreasing each year over the next six years until the ultimate rate of 4.50 percent is reached. For Post-Medicare costs, the 2019 healthcare trend rate is 8.00 percent, decreasing to the ultimate rate of 4.50 percent over the next seven years.

Adjustments to Estimate the Potential Impact of the Employer Group Waiver Plan (EGWP)

Effective January 1, 2013, prescription benefits for certain Medicare eligible members are provided through an Employer Group Waiver Plan (EGWP) with a “Wrap” feature. The EGWP design is based on a federally approved drug formulary and plan design. A sponsor may provide additional benefits through a supplementary “Wrap” plan that ensures members will receive benefits that are relatively equal to those of the plan that the sponsor currently offers. In most instances, the current plan benefit design can be replicated through the combination of an EGWP-Wrap plan at reduced costs. The key components which are expected to reduce costs include:

- 1) Sixty-five percent discount on brand name drugs while member is in the “donut hole” coverage gap. (Under a standard or model Medicare Part D program, a member is responsible for 100 percent of the prescription costs from the initial coverage limit (\$3,750 for 2018) to the catastrophic coverage limit (\$7,509 for 2018). This coverage gap is also known as the “donut hole.” The discount is also applied to the member’s true out of pocket costs which allows federal catastrophic coverage to be reached sooner.
- 2) The “donut hole” coverage gap is reduced ratably and completely eliminated by 2019.
- 3) As the coverage gap diminishes, the sponsor’s “Wrap” supplemental benefits within the “donut hole” decreases.
- 4) Federal prescription drug subsidies must be used to reduce the cost of providing benefits to Medicare eligible members, resulting in lower premium rates. This feature allows the sponsor to reflect certain EGWP-Wrap savings in the OPEB actuarial valuation.

Based on updated data from CalPERS, the remaining savings as of June 30, 2018, attributable to the EGWP-Wrap design feature is approximately 20 percent of average costs for PERSCare, 24 percent of average costs for PERS Choice, and 18 percent for HMO plans. In our actuarial valuation, EGWP based savings are assumed to gradually wear away over the next eight years to an ultimate savings level of nine percent of average costs for PERSCare, twelve percent of average costs for PERSChoice, and seven percent of average costs for HMO plans.

Current Overview

Adjustments to Estimate the Impact of Excise Tax under Healthcare Reform

Beginning in 2022, the Patient Protection and Affordable Care Act (PPACA) imposes a 40 percent excise tax on healthcare plan costs over certain statutory limits. The annual statutory limits depend on the age and coverage tier as follows:

	Age less than 55 or greater than 64	Age greater than 54 or less than 65
Single person coverage	\$10,200	\$11,850
All other coverage types	\$27,500	\$30,950

Before the tax takes effect, the preceding statutory limits are expected to be updated for inflation. The statutory limits do not recognize differences due to region, health status of the group or plan design. Healthcare plan costs may be blended among active members, pre-Medicare retirees and Medicare retirees if members are covered by the same plan, and similar benefits are provided. Healthcare plan costs subject to the excise tax include medical, prescription and employer Health Savings Accounts and Health Reimbursement Accounts.

For the actuarial valuation as of June 30, 2018, the impact of the excise tax was estimated by:

- 1) Aggregating average costs by the PPO plans and the HMO plans;
- 2) Projecting average plan costs based on the assumed actuarial valuation trend rate;
- 3) Projecting the statutory limits assuming a CPI-U rate of 3.0 percent;
- 4) Estimating the projected excise tax based on the projected average costs and statutory limits;
- 5) Assuming the plan sponsor would subsidize the excise tax and no additional costs would be passed to plan members; and
- 6) Developing an adjusted trend rate, applied to the explicit costs, to approximate the impact of the additional excise tax costs.

Based on the preceding method, the ultimate trend rate for future retirees was increased by an additional 0.14 of a percentage point to 4.64 percent on and after plan year end 2023.

Participation Assumption

Another key assumption influencing costs is the participation assumption, or the likelihood that an active member will retire and select healthcare coverage. This assumption generally depends on the subsidy provided by the employer. That is, the higher the level of employer benefits, and the lower the level of retiree-paid premium, the higher the likelihood the retired member will select healthcare coverage. For this actuarial valuation, we have defined participation rates that depend on the portion of the total premium paid by the State. On average, about 95 percent of all eligible retirees elect healthcare coverage.

Other Demographic Assumptions

Demographic assumptions are used to determine the likelihood an active member will retire, survive and receive benefits. Assumptions relating to termination, disability, retirement and mortality were based on the same assumptions used by CalPERS to develop costs for pension benefits. We reviewed the CalPERS assumptions for reasonableness and consistency.

Retiree Per Capita Claim Costs and the Implicit Rate Subsidy

A retiree healthcare actuarial valuation depends on the retired member's expected healthcare claim at a given age indexed for healthcare inflation. Average healthcare costs are generally developed using the experience of the group, and are adjusted for the retired member's age based on standard morbidity tables or group specific morbidity for very large groups.

The employer's net cost for a given member in a given year equals the expected age-adjusted annual claims cost less the member's annual contribution. Retired members not eligible for Medicare who are charged a premium based on the experience of both active and retired members will be receiving a subsidy because the average healthcare costs of retired members is generally higher than the blended average costs of a group comprised of both active and retired members. This subsidy is referred to as the *implicit rate subsidy*, and is a major contributor to the OPEB costs. The portion of the blended average costs paid by the employer is referred to as the *explicit rate subsidy*, and also directly impacts OPEB costs.

Actuarial Cost Method

Actuarial valuation results, used for accounting purposes, such as the Total OPEB Liability and Service Cost were developed using the Entry Age Normal Actuarial Cost Method and the blended discount rates as required by GASB Statements No. 74 and 75. The Normal Cost and Actuarial Accrued Liability for purpose of calculating the Actuarially Determined Contribution were developed using the Entry Age Normal Actuarial Cost Method and a full-funding discount rate of 7.00 percent.

Closed Versus Open Group Valuation

The development of the Actuarially Determined Contribution and the measurement of the Actuarial Accrued Liability and Total OPEB Liability were based on a "closed group" valuation. A closed group valuation produces assets, liabilities and costs for the current and future fiscal years without considering how future new hires may influence costs. An open group valuation considers the impact of future new hires and is a useful tool to evaluate the impact of future potential changes in demographics, benefit design, assumptions, funding policies or the budgetary impact of the OPEB programs.

The following section contains a reconciliation of the actuarial accrued liability since the last actuarial valuation and a summary of key valuation results as of June 30, 2018.

SECTION B

SUMMARY OF ACTUARIAL VALUATION RESULTS

Actuarial Valuation Results

Reconciliation of the Total OPEB Liability

The table on the following page shows a reconciliation of the total OPEB liability from June 30, 2017, to June 30, 2018, based on the GASB Statements No. 74 and 75.

The total OPEB liability decreased from \$91.51 billion as of June 30, 2017, to \$86.47 billion as of June 30, 2018. If the plan's assumptions had been exactly realized during the year and no assumption changes were made, the total OPEB liability would have increased to \$96.40 billion as of June 30, 2018. The key factors contributing to the unexpected decrease in total OPEB liability of \$9.93 billion include:

- Demographic experience increased the expected actuarial liabilities by 0.2 percent or \$0.15 billion. Examples of demographic experience losses include: more members retiring than assumed, members retiring earlier than assumed and members living longer than assumed. During the year, the number of retirees increased by 2.6 percent from 182,866 to 187,622 at June 30, 2018, which is one of the key causes of the demographic loss.
- During the year, favorable healthcare claims experience and plan design changes decreased the expected total OPEB liability by approximately 7.6 percent or \$7.34 billion. This change in total OPEB liability is mainly driven by the relationship between the assumed trend rate used to project average member claims cost in 2018 (used in last year's actuarial valuation) and the actual trend rate for 2018 (used to update average per member claim costs). During plan year end June 30, 2018, average per member claim costs were lower than assumed.
- Each year, as part of the actuarial valuation process, the trend rates are evaluated and updated based on a review of supporting documentation provided by CalPERS and a review of various publically available trend studies. We continue to use a select and ultimate trend assumption and the most recent premium information available at the time of the actuarial valuation. Trend rates for the June 30, 2018, actuarial valuation were reviewed and updated since the last actuarial valuation. The trend rates are assumed to begin in plan year 2020 at 7.50 percent for pre-Medicare coverage and 8.00 percent for post-Medicare coverage and gradually decrease to 4.50 percent. This assumption change decreased expected total OPEB liability by approximately 0.6 percent or \$0.57 billion.
- The pension related assumptions were updated based on the December 2017 Experience Study conducted by CalPERS which includes rates of decrement, salary increase rates, and economic assumptions. These assumption changes decreased expected total OPEB liability by 0.7 percent or \$0.64 billion.
- Changing the GASB Statements No. 74 and 75 blended discount as of June 30, 2017, which ranged from 3.56 percent to 4.22, to the blended discount rate as of June 30, 2018, which ranges from 3.62 percent and 4.28 percent, decreased the total OPEB liability by 1.6 percent or \$1.53 billion.

The table on the following page shows the reconciliation of the total OPEB liability.

Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES OPEB ACTUARIAL VALUATION RESULTS AS OF JUNE 30, 2018 (\$ in '000s) BASED on GASB Statements No. 74 and 75 Discount Rate (GAIN)/LOSS ANALYSIS	
Total OPEB Liability as of June 30, 2017	\$91,507,618
Service Cost for 17/18	3,477,466
Actual Benefit Payments	(2,246,439)
Interest	<u>3,659,659</u>
Expected Total OPEB Liability as of June 30, 2018	\$96,398,304
(Gain)/Loss Items	
Demographic Experience	\$153,458
Healthcare Claims Experience	(\$7,343,096)
Change in Healthcare Related Assumptions	(569,870)
Change in Pension Related Assumptions	(639,009)
Change in in GASB 74/75 Blended Discount Rate	<u>(1,530,548)</u>
Total	(\$9,929,065)
Total OPEB Liability as of June 30, 2018	\$86,469,239

The following table shows key actuarial valuation results by group.

Actuarial Valuation Results

JUNE 30, 2018 ACTUARIAL VALUATION SUMMARY (\$ IN 000's)											
	FY 2018			Full-funding Discount Rate			GASB No. 74 and 75				
	Assets 6/30/2018	PAYGO Contributions	Pre-Fund Contributions	Normal Cost	Actuarial Liability	Net Employer ADC	Blended Discount Rate	Service Cost	Total OPEB Liability	Net OPEB Liability	Annual OPEB Expense
Actuarial Valuation Group											
Professional, Administrative, Financial and Staff Services (BU1)	\$ -	\$ 440,390	\$ -	\$ 281,426	\$ 11,998,166	\$ 936,593	3.991%	\$ 696,561	\$ 18,620,576	\$ 18,620,576	\$ 880,527
Attorneys and Hearing Officers (BU2)	18,143	28,533	6,330	20,868	772,752	59,063	4.072%	49,771	1,157,694	1,139,551	58,781
Professional Educators and Librarians (BU3)	-	25,176	-	10,009	504,863	37,821	3.902%	23,166	743,617	743,617	12,878
Office and Allied (BU4)	-	161,833	-	97,455	3,714,588	299,052	4.033%	248,121	5,569,053	5,569,053	278,350
Highway Patrol (BU5)	331,292	99,610	63,786	63,151	2,964,044	210,625	4.282%	146,042	4,560,540	4,229,248	214,602
Corrections (BU6)	332,752	348,140	130,490	233,685	9,464,168	671,262	4.133%	531,916	14,699,258	14,366,506	626,454
Protective Services and Public Safety (BU7)	41,695	74,407	11,432	46,225	1,929,945	143,304	4.066%	106,547	2,967,280	2,925,585	119,440
Firefighters (BU8)	12,305	51,630	12,132	43,154	1,447,313	114,914	4.152%	101,638	2,268,179	2,255,874	147,057
Professional Engineers (BU9)	53,429	86,746	11,377	55,283	2,654,893	191,109	3.953%	142,954	4,098,926	4,045,497	141,686
Professional Scientific (BU10)	13,455	21,752	3,744	16,360	638,407	48,221	4.084%	39,944	969,671	956,216	51,242
Engineering and Scientific Technicians (BU11)	-	23,167	-	9,577	523,646	38,519	3.926%	25,769	788,177	788,177	25,986
Craft and Maintenance (BU12)	27,808	116,807	16,559	60,806	2,662,406	197,202	4.010%	146,732	3,994,063	3,966,255	148,895
Stationary Engineers (BU13)	1,556	11,190	1,536	5,428	261,449	19,026	3.906%	12,821	396,491	394,935	8,968
Printing and Allied Trades (BU14)	-	5,454	-	1,759	108,297	7,773	3.885%	4,693	161,927	161,927	2,108
Allied Services (BU15)	-	30,721	-	24,912	761,471	65,617	4.058%	59,602	1,146,897	1,146,897	67,087
Physicians, Dentists and Podiatrists (BU16)	14,232	16,693	6,745	10,709	348,607	25,930	4.112%	22,878	496,514	482,282	14,558
Registered Nurses (BU17)	-	38,427	-	35,985	988,313	88,356	4.050%	79,048	1,497,692	1,497,692	89,453
Psychiatric Technicians (BU18)	7,704	52,814	7,598	34,926	1,287,172	99,808	4.080%	78,668	1,981,304	1,973,600	97,191
Health and Social Services/Professional (BU19)	8,737	37,002	8,622	31,743	942,852	77,548	4.159%	69,599	1,399,133	1,390,396	82,390
Medical and Social Services (BU20)	-	13,466	-	27,105	462,345	50,312	4.219%	56,886	713,893	713,893	70,639
Educational Consultant and Library (BU21)	-	8,302	-	2,769	164,528	11,893	3.872%	7,080	243,656	243,656	3,617
California State University	-	353,022	-	266,569	8,287,494	743,648	3.620%	680,934	13,128,996	13,128,996	724,702
Judicial Branch	11,178	10,972	7,378	8,042	308,968	21,146	4.118%	19,162	461,344	450,166	19,709
Exempt/Excluded/Executive	-	49,771	-	25,785	1,220,661	96,046	3.620%	71,649	1,977,155	1,977,155	80,504
Other	-	140,414	-	20,483	1,705,810	177,293	3.620%	55,285	2,427,203	2,427,203	(30,053)
Total	\$ 874,286	\$ 2,246,439	\$ 287,729	\$ 1,434,214	\$ 56,123,158	\$ 4,432,081		\$ 3,477,466	\$ 86,469,239	\$ 85,594,953	\$ 3,936,771

Detailed actuarial valuation results by group are provided in Appendix B of this report.

Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 TOTAL OF ALL ACTUARIAL VALUATION GROUPS		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	272,574	272,078
Retired Participants ^a	<u>182,866</u>	<u>187,622</u>
Total Participants	455,440	459,700
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 37,209,686	\$ 36,896,456
Retired Participants	<u>32,020,996</u>	<u>32,546,122</u>
Total Participants	\$ 69,230,682	\$ 69,442,578
Actuarial Accrued Liability		
Active Participants	\$ 24,297,206	\$ 23,577,036
Retired Participants	<u>32,020,996</u>	<u>32,546,122</u>
Total Participants	\$ 56,318,202	\$ 56,123,158
Actuarial Value of Assets	\$ 500,035	\$ 874,286
Unfunded Actuarial Accrued Liability	\$ 55,818,167	\$ 55,248,872
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 1,463,074	\$ 1,434,214
Administrative Expenses	5,645	5,688
Amortization of UAAL	<u>3,213,162</u>	<u>3,232,885</u>
Total ADC	\$ 4,681,881	\$ 4,672,787
Estimated Member Contributions	<u>(119,973)</u>	<u>(240,706)</u>
Net Employer ADC	\$ 4,561,908	\$ 4,432,081
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 1,572,229	\$ 1,576,478
Part B Reimbursement	231,313	281,265
Dental Claims	<u>114,273</u>	<u>114,181</u>
Total	\$ 1,917,815	\$ 1,971,924
Employer Implicit Costs	<u>300,261</u>	<u>302,137</u>
Total Employer Costs	\$ 2,218,076	\$ 2,274,061
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 47,502	\$ 93,379
Dental Claims	<u>30,045</u>	<u>30,449</u>
Total	\$ 77,547	\$ 123,828
Total Claims Costs	\$ 2,295,623	\$ 2,397,889

^aRetired participants with dental only coverage, 11,231 as of July 1, 2017, and 11,459 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER TOTAL OF ALL ACTUARIAL VALUATION GROUPS			
Fiscal Year Ending	June 30, 2017		June 30, 2018
Total OPEB Liability			
Service Cost	\$ 4,009,501	\$	3,477,466
Interest on Total OPEB Liability	3,249,843		3,659,659
Changes of Benefit Terms	-		-
Difference between Expected and Actual Experience	-		(7,189,638)
Changes of Assumptions	(9,830,478)		(2,739,427)
Benefit Payments	(2,118,695)		(2,246,439)
Net Change in Total OPEB Liability	\$ (4,689,829)	\$	(5,038,379)
Total OPEB Liability - Beginning	\$ 96,197,447	\$	91,507,618
Total OPEB Liability - Ending (a)	\$ 91,507,618	\$	86,469,239
Plan Fiduciary Net Position			
Employer PayGO Contributions	\$ 2,118,695	\$	2,246,439
Employer Pre Funding Contributions	271,114		171,669
Active Member Contributions	39,362		116,061
Net Investment Income	42,292		48,098
Benefit Payments	(2,118,695)		(2,246,439)
Administrative Expense	(165)		(350)
Other	(290)		-
Net Change in Plan Fiduciary Net Position	\$ 352,313	\$	335,478
Plan Fiduciary Net Position - Beginning	\$ 147,722	\$	538,808
Plan Fiduciary Net Position - Ending (b)	\$ 500,035	\$	874,286
Net OPEB Liability - Ending (a) - (b)	\$ 91,007,583	\$	85,594,953
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	0.546%		1.011%
Actuarially Determined Contribution (ADC)	\$ 4,506,153	\$	4,565,820
Employer Contribution	\$ 2,389,810	\$	2,418,108
Percentage of ADC made by Employer	53%		53%
Contribution Excess/(Shortfall)	\$ (2,116,343)	\$	(2,147,712)
Expected Return on Assets	\$ 24,862	\$	49,503
Investment (Gain)/Loss	\$ (17,427)	\$	1,405
Average Expected Remaining Service	From 2.607026 to 9.568629		From 2.749775 to 9.781090
Blended Discount Rate Beginning of Year	From 2.850% to 3.672%		From 3.560% to 4.219%
Blended Discount Rate End of Year	From 3.560% to 4.219%		From 3.620% to 4.282%
Long-term Expected Return on Assets	7.280%		7.000%

Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) TOTAL OF ALL ACTUARIAL VALUATION GROUPS		
Measured for the Plan's Fiscal Year Ending Applicable for the Sponsor's Fiscal Year Ending	June 30, 2017 June 30, 2018	June 30, 2018 June 30, 2019
OPEB Expense		
Service Cost	\$ 4,009,501	\$ 3,477,466
Interest on the Total OPEB Liability	3,249,843	3,659,659
Current-Period Benefit Changes	-	-
Active Member Contributions	(39,363)	(116,061)
Projected Earnings on Plan Investments	(24,862)	(49,503)
Operating Expenses	165	350
Other Changes in Plan Fiduciary Net Position	290	-
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(1,089,832)
Recognition of Outflow/(Inflow) due to Assumption Changes	(1,533,837)	(1,942,105)
Recognition of Outflow/(Inflow) due to Investment Experience	(3,488)	(3,203)
Net OPEB Expense	\$ 5,658,249	\$ 3,936,771
Reconciliation of Net OPEB Liability		
Net OPEB Liability beginning of year	\$ 96,049,724	\$ 90,968,810
OPEB Expense	5,658,249	3,936,771
Employer Contributions	(2,389,810)	(2,418,108)
Change in Outflow/(Inflow) due to Non-investment Experience	-	(6,099,806)
Change in Outflow/(Inflow) due to Assumption Changes	(8,296,641)	(797,322)
Change in Outflow/(Inflow) due to Investment Experience	(13,939)	4,608
Net OPEB Liability End of year	\$ 91,007,583	\$ 85,594,953
Deferred (Inflows)		
Non-investment Experience	\$ -	\$ (6,099,806)
Assumption Changes	\$ (8,296,641)	\$ (9,097,746)
Investment Experience	\$ (13,939)	\$ (11,071)
Deferred Outflows		
Non-investment Experience	\$ -	\$ -
Assumption Changes	\$ -	\$ 3,784
Investment Experience	\$ -	\$ 1,737
Net OPEB Liability Sensitivity		
Baseline Discount Rate and 4.5% Ultimate Trend ^a	\$ 91,007,583	\$ 85,594,953
Increase Discount Rate by One Percentage Point	\$ 77,780,968	\$ 73,281,736
Decrease Discount Rate by One Percentage Point	\$ 107,697,362	\$ 101,103,828
Increase Trend Rate by One Percentage Point	\$ 109,161,074	\$ 99,687,229
Decrease Trend Rate by One Percentage Point	\$ 76,879,311	\$ 74,577,761

^a Baseline discount rate as measured for the fiscal year ending June 30, 2017 ranges from 3.560% to 4.219%. Baseline discount rate as measured for the fiscal year ending June 30, 2018 ranges from 3.620% to 4.282%.

SECTION C

SUMMARY OF THE CURRENT SUBSTANTIVE PLAN PROVISIONS

Summary of the Current Substantive Plan Provisions

Eligibility Requirements

Health Care Coverage

Retired Employees

A member is eligible to enroll in a CalPERS health plan if he or she retires within 120 days of separation from employment, was eligible for health benefits upon separation and receives a monthly retirement allowance. If the member meets this requirement, he or she may continue his or her enrollment at retirement, enroll within 60 days of retirement or enroll during any Open Enrollment period. If a member is currently enrolled in a CalPERS health plan and wants to continue enrollment into retirement, the employer will notify CalPERS and the member's coverage will continue into retirement.

Survivors of an Annuitant

If a CalPERS annuitant satisfied the requirement to retire within 120 days of separation, the survivor may be eligible to enroll within 60 days of the annuitant's death or during any future Open Enrollment period. *Note: A survivor cannot add any new dependents; only dependents that were enrolled or eligible to enroll at the time of the member's death qualify for benefits.*

Surviving registered domestic partners who are receiving a monthly annuity as a surviving beneficiary of a deceased employee or annuitant on or after January 1, 2002, are eligible to continue coverage if currently enrolled, enroll within 60 days of the domestic partner's death, or enroll during any future Open Enrollment period.

Eligibility Exceptions

Certain family members are **not** eligible for CalPERS health benefits:

- Children age 26 or older;
- Children who have been married;
- Children's spouses;
- Disabled children over age 26 who were never enrolled or who were deleted from coverage;
- Former spouses;
- Grandparents;
- Parents;
- Children of former spouses/ former registered domestic spouses; and
- Other relatives.

Death of a Member

Upon the death of an employee while in State service, the law requires the State employer to continue to pay contributions for the survivor's or registered domestic partner's health coverage for up to 120 days

Summary of the Current Substantive Plan Provisions

after the employee's death. Surviving family members will be eligible for health benefit coverage, provided they:

- Qualify for a monthly survivor check from CalPERS;
- Were an eligible dependent at the time of the member's death; and
- Continue to qualify as eligible family members.

Surviving family members who do not meet the above qualifications may be eligible for COBRA.

Children of registered domestic partners may have continued eligibility if they were enrolled as family members at the time of a member's death.

Coordination with Medicare

CalPERS retired members who qualify for premium-free Part A, either on their own or through a spouse (current, former or deceased), must sign up for Part B as soon as they qualify for Part A. A member must then enroll in a CalPERS sponsored Medicare plan. The CalPERS-sponsored Medicare plan will pay for costs not paid by Medicare, by coordinating benefits.

Dental Benefits

Retired Employees

Retired State employees are eligible to continue enrollment in the State's Dental Program if they retire within 120 days after their date of separation and they receive a retirement allowance from CalPERS. Retired employees who did not continue dental coverage into retirement may enroll during the annual dental open enrollment period.

California Highway Patrol employees who retired on or after September 30, 1992, may elect to continue enrollment in the Union-sponsored indemnity plan or change to a State-sponsored dental plan. Under the terms of the Memorandum of Understanding between the California Highway Patrol and the California Department of Human Resource, this is an irrevocable one-time election.

California Correctional Peace Officers Association members who are enrolled in a union-sponsored dental plan must change to a State-sponsored dental plan and retire within 120 days after their date of separation to continue their dental coverage.

Survivors of an Employee or Annuitant

Departments are required to continue paying the State Contributions for a covered employee's spouse, domestic partner and other eligible family members for up to 120 days following an employee's death. During this time, CalPERS will determine if the spouse or other family members are eligible for continuation coverage.

Summary of the Current Substantive Plan Provisions

After 120 days, the surviving family member(s) will be eligible to continue their current coverage if they meet all of the following criteria:

- They were enrolled as dependents at the time of death;
- They qualify for a monthly survivor allowance from CalPERS; and
- They continue to qualify as family members.

Surviving enrolled family members who do not qualify to continue their current coverage are eligible for continuation coverage under COBRA.

2018 State Contribution

The 2018 maximum State Contribution amounts are as follows:

2018 State Contribution		
One-Party Coverage	Two-Party Coverage	Family Coverage
\$725.00	\$1,377.00	\$1,766.00

The preceding “100/90” State contributions rates are based on:

- 100 percent of the weighted average single premium for employees and annuitants participating in the four Basic plans with the highest enrollment of single coverage; plus
- An additional contribution for dependent coverage equal to 90 percent of the weighted average excess of the two-party or family premium over the single premium for employees and annuitants participating in the four Basic plans with the highest enrollment of two-party and family coverage.

If the State retiree is signed up for a CalPERS sponsored Medicare plan and the monthly State contribution is more than the plan’s monthly premium, CalPERS will credit the retiree the difference between the two amounts, up to the amount of the Part B premium.

The actual amount of the contribution varies based on the employee type as described below.

State Contribution – Judge Elected or Appointed Prior to November 9, 1994

State Contributions are based upon the vesting schedule applicable to State Employees.

If a member is eligible for a deferred retirement benefit, the member must pay the full plan premium until he or she starts receiving benefits in order to have the State's contribution paid once he or she begins receiving retirement payments.

Summary of the Current Substantive Plan Provisions

State Contribution – Judge Elected or Appointed After November 9, 1994

To continue CalPERS health coverage into retirement if the member is under age 65, the member must:

- Have at least five years of service credit;
- Elect health coverage within 60 days after leaving judicial office; and
- Assume the cost of both the member's share and the employer's share of the monthly premiums – plus an additional 2 percent of the premium, until age 65.

When the member reaches age 65, the member is eligible for the employer's share of the premium. The State Contribution is determined by the member's years of service credit:

Years of Service	State Contribution
At Least 5 Years	50%
Between 5 to 10 Years	Pro-rated between 50% to 100%
10 or More Years	100%

State Contribution – Legislator, Constitutional Officer or Statutory Officer

Members of the CalPERS Health Program can continue coverage into retirement. Members must have at least eight years of service for health benefits vesting. If the member took office after January 1, 1985, he or she will need 10 years to receive the full State Contribution towards the monthly premium.

State and CSU Employees (includes Misc., Industrial, CHP, POFF and Safety)

For State Employees, the amount the State contributes toward health coverage depends on whether the employee is vested. The contribution amount is determined by a formula set by law and the date the employee was first employed by the State.

- **First hired by the State prior to January 1, 1985:** The member is eligible to receive 100 percent of the State's contribution toward the member's health premium upon the member's retirement.
- **First hired by the State between January 1, 1985 and January 1, 1989:** The member is subject to vesting requirements, as follows:
 - 10 years of service: Member is fully vested and qualifies for 100 percent of the State's contribution toward his or her health premium.
 - Less than 10 years of service: Members are eligible for health coverage; however, the State's contribution will be reduced by 10 percent for each year of service under 10 years. The member will be responsible for the additional cost.

Summary of the Current Substantive Plan Provisions

- **First hired by the State after January 1, 1989:** The percentage of the State's contribution is based on completed years of State credited service as follows:

Years of Credited Service	State Contribution
Less than 10	0%
10	50%
10 to 19	50%, plus 5% added for each year after the 10 th year
20 or more	100%

For California State University Employees and members on disability, the above vesting requirements do not apply and the employer pays 100 percent of the contribution provided the member is eligible for healthcare benefits at retirement.

California State University Employees hired on or after July 1, 2017, must have at least 10 years of credited service to be eligible for healthcare benefits at retirement.

State Employees in Bargaining Units and Judicial Employees

The State and employees in most bargaining units and Judicial Employees have agreed to changes in benefits if an employee is hired after certain effective dates. The key benefit changes include:

- Reducing the "100/90" State contribution formula to "80/80";
- Grading the State contribution if the member has less than 25 years of Credited Service at retirement;
- For Medicare eligible members, eliminating the Medicare Part B subsidy; and
- For Medicare eligible members, developing the "80/80" State contribution based on the premium rates for only Medicare members.

Summary of the Current Substantive Plan Provisions

The following table shows the percentage of State contribution based on years of Credited Service at retirement:

Years of Credited Service	State Contribution
Less than 15	0%
15	50%
15 to 24	50%, plus 5% added for each year after the 15 th year
25 or more	100%

The following table shows the plan change effective date by employee type:

Employee Type	Plan Change Effective Date
BU 9 and 10	January 1, 2016
SEIU (BU 1,3,4,11,14,15,17,20, 21)	January 1, 2017
BU 2,6,7,8,12,13,18,19	January 1, 2017
Judicial Employees	January 1, 2017
BU 16	April 1, 2017

Prefunding of Retiree Healthcare Benefits

The State and employees in all bargaining units and Judicial employees have agreed to pre-fund retiree healthcare benefits. The State and all active members make contributions into separate CERBT accounts that are based on a percentage of pensionable compensation with the ultimate goal of contributing 100 percent of the actuarially determined normal cost shared equally between the State and employees.

Assets in each respective CERBT account cannot be used to pay benefits until the earlier of 2046 or the year that the actuarial accrued liability is fully funded, and then only for the members of those bargaining units. GASB 75 requires discrete plan reporting for the portion of asset amounts accumulated solely for the payment of benefits of certain groups of employees. The State's comprehensive annual financial report will include these plan amounts.

Summary of the Current Substantive Plan Provisions

The following table shows the Fiscal Year Beginning date of the Bargaining Unit's goal to reach 50 percent of actuarially determined normal cost ("Fund Goal") as well as the total employee contribution percentage of pensionable compensation (the State will make a matching contribution of the same amount, except for BU 5 ^a):

Bargaining Unit	Fiscal Year Beginning July 1,					
	2016	2017	2018	2019	2020	2021
SEIU (BU 1,3,4,11,14,15,17,20, 21)			1.2%	2.3%	3.5%	Fund Goal
BU 2		0.7%	1.3%	2.0%	Fund Goal	
BU 5 (Highway Patrol) ^a	0.5%	0.5%	0.5%	Fund Goal		
BU 6 (Corrections)	1.3%	2.6%	4.0%	Fund Goal		
BU 7 (Protective Services and Public Safety)		1.3%	2.7%	4.0%	Fund Goal	
BU 8 (Firefighters)		1.5%	3.0%	4.4%	Fund Goal	
BU 9 (Professional Engineers)		0.5%	1.0%	2.0%	Fund Goal	
BU 10 (Professional Scientific)		0.7%	1.4%	2.8%	Fund Goal	
BU 12 (Crafts & Maintenance)	0.5%	1.5%	2.5%	3.5%	4.6%	Fund Goal
BU 13 (Stationary Engineers)		1.3%	2.6%	3.9%	Fund Goal	
BU 16 (Physicians and Dentists)	0.5%	1.0%	1.4%	Fund Goal		
BU 18 (Psychiatric Technicians)		1.3%	2.6%	4.0%	Fund Goal	
BU 19 (Health and Social Services)		1.0%	2.0%	3.0%	Fund Goal	
Judicial Employees	1.5%	2.3%	Fund Goal			

^a For bargaining unit 5, the State contributes 7.3% of base pay and the member contributes 0.5% of base pay in fiscal years 2017, 2018 and 2019.

Summary of the Current Substantive Plan Provisions

EPO and HMO Basic Plans	
Kaiser Permanente, Blue Shield Access+ HMO, Blue Shield Access+ EPO, Anthem Blue Cross, Health Net, Sharp Performance Plus, UnitedHealthcare SignatureValue Alliance HMO, Western Health Advantage HMO	
	Copay and/or Benefit Limit
Hospital	
Inpatient	No Charge
Outpatient	
Kaiser Permanente	\$15/Visit
Other HMO/EPO Plans	No Charge
Physician Services	
Office Visits	\$15/visit
<i>More than one copay may apply during an office visit if multiple services are provided.</i>	
Outpatient Visits	
Kaiser Permanente	\$15/visit
Other HMO Plans	\$15/visit
Urgent Care Visits	
Other HMO Plans	\$15/visit
Allergy Testing/Treatment	
Kaiser Permanente	No charge for Injections \$15/Visit (Testing Visits)
Other HMO Plans	No Charge
Vision Exam (Refraction)	
Kaiser Permanente	No Charge
Other HMO Plans	No Charge
<i>For age 17 and under. Varies by plan for age 18 and over and may be limited to one visit per calendar year.</i>	
Hearing Exam/Screening	
Kaiser Permanente	\$15/visit
Other HMO Plans	No Charge
Inpatient Hospital Visits	No Charge
Surgery/Anesthesia	
Kaiser Permanente	No Charge for Inpatient, \$15 for Outpatient
Other HMO Plans	No Charge
Ambulance Service	
<i>Air/ground ambulance service</i>	No Charge
Emergency Services	
<i>Waived if admitted as an inpatient or for observations as an outpatient</i>	\$50/Visit
Prescription Drug Benefit	
Other HMO Plans	
Retail Pharmacy	\$5/generic \$20/formulary brand name \$50/non-formulary <i>(\$40 if medical necessity approved)</i>
<i>(up to 30-day supply)</i>	
Mail Order Program	\$10/generic \$40/formulary brand name \$100/non-formulary <i>(\$70 if medical necessity approved)</i>
<i>(up to 90-day supply)</i>	
<i>\$1,000 maximum copayment per person per calendar year.</i>	
Maximum Calendar Year Deductible	\$1,000
Kaiser Permanente	
<i>Up to 30-day supply</i>	\$5/generic / \$20/brand name
<i>31-100-day supply</i>	\$10/generic / \$40/brand name

Summary of the Current Substantive Plan Provisions

PERS Select, PERS Choice, & PERSCare PPO Basic Plans						
	PERS Select		PERS Choice		PERSCare	
	Member's Cost		Member's Cost		Member's Cost	
	PPO	Non-PPO	PPO	Non-PPO	PPO	Non-PPO
Calendar Year Deductible Individual Family	\$500 \$1,000		\$500 \$1,000		\$500 \$1,000	
Maximum Calendar Year Copay Individual Family	\$3,000 \$6,000	None None	\$3,000 \$6,000	None None	\$2,000 \$4,000	None None
Lifetime Maximum Benefit - Per Individual	None		None		None	
Hospital Per Admission Deductible Inpatient and Outpatient	None 20-30% (depending on the hospital)	None 40%	None 20%	None 40%	\$250 10%	\$250 40%
Physician Services Office Visits Urgent Care Visits Outpatient Visits Inpatient Visits Allergy Testing/Treatment	\$20 copay \$20 copay \$20 copay 20% 20%	40% 40% 40% 40% 40%	\$20 copay \$20 copay \$20 copay 20% 20%	40% 40% 40% 40% 40%	\$20 copay \$20 copay \$20 copay 10% 10%	40% 40% 40% 40% 40%
Ambulance Service	20%	20%	20%	20%	10%	10%
Emergency Services (\$50 deductible per visit for covered ER charges - waived if admitted to Hospital)	20%	20%	20%	20%	10%	10%
Prescription Drug Benefit Applies to PERS Select, PERS Choice, and PERSCare	Generic		Preferred Brand		Non-Preferred Brand	
Retail Pharmacy* <i>*short-term use</i>	\$5		\$20		\$50 <i>(\$40 if partial waiver of Non-Preferred Brand copayment approved)</i>	
Retail Pharmacy Maintenance Medications filled after 2nd Fill** <i>** A maintenance medication taken longer than 60 days for chronic conditions.</i>	\$10		\$40		\$100 <i>(\$70 if partial waiver of Non-Preferred Brand copayment approved)</i>	
Mail Service Pharmacy <i>A \$1,000 maximum copayment per person per calendar year applies</i>	\$10		\$40		\$100 <i>(\$70 if partial waiver of Non-Preferred Brand copayment approved)</i>	

Summary of the Current Substantive Plan Provisions

EPO and HMO Medicare Plans

Kaiser Permanente, UnitedHealthcare, and Anthem Preferred

	Medicare Managed Care Plan (Medicare Advantage)	Medicare Managed Care Plan (Group Medicare Advantage)
	Kaiser Permanente	UnitedHealthcare, Anthem Preferred
	Copay and/or Benefit Limit	Copay and/or Benefit Limit
Hospital		
Inpatient	No Charge	No Charge
Outpatient	\$10/visit	No Charge
Physician Services		
Office Visits	\$10/visit	\$10/visit
Urgent Care Visits	\$10/visit	\$25/visit
Allergy Testing/Treatment	\$3/visit (injection visits) \$10/visit (testing visits)	\$10/visit (injection visits) \$10/visit (testing visits)
Vision Exam (Refraction)	\$10/visit	\$10 (limited to one visit)
Hearing Exam/Screening	\$10/visit	\$10/visit
Inpatient Hospital Visits	No Charge	No Charge
Surgery/Anesthesia	No Charge for Inpatient \$10/visit for Outpatient	No Charge
Ambulance Service		
<i>Air/ground ambulance service</i>	No Charge	No Charge
Emergency Services		
<i>Waived if admitted as an inpatient or for observations as an outpatient</i>	\$50/visit	\$50/visit
Prescription Drug Benefit		
Retail Pharmacy (up to 30-day supply) (Does not apply to Kaiser)	\$5/generic \$20/brand name <i>Kaiser Permanente provides up to 100-day supply (or a 30-day supply for certain drugs) through its pharmacies or mail order program.</i>	\$5/generic \$20/formulary brand name \$50/non-formulary (<i>\$40 if medical necessity approved</i>)
Mail Order Program \$1,000 maximum copayment per person per calendar year (up to 90-day supply) (Does not apply to Kaiser)	\$10/generic \$40/brand name <i>Kaiser Permanente provides up to 100-day supply (or a 30-day supply for certain drugs) through its pharmacies or mail order program.</i>	\$10/generic \$40/formulary brand name \$100/non-formulary (<i>\$70 if medical necessity approved</i>)

Summary of the Current Substantive Plan Provisions

PERS Select, PERS Choice, & PERSCare Supplement Plans			
PPO Supplement to Original Medicare Plans			
	PERS Select	PERS Choice	PERSCare
	PPO	PPO	PPO
Calendar Year Deductible	None Plan pays Medicare Parts A and B deductible	None Plan pays Medicare Parts A and B deductible	None Plan pays Medicare Parts A and B deductible
Lifetime Maximum Benefit - Per Individual	None	None	None
Hospital Inpatient and Outpatient	No Charge	No Charge	No Charge
Physician Services Physician Office Visits Inpatient Visits Outpatient Visits Urgent Care Visits Allergy Testing/Treatment	No Charge No Charge No Charge No Charge No Charge	No Charge No Charge No Charge No Charge No Charge	No Charge No Charge No Charge No Charge No Charge
Ambulance Service	No Charge	No Charge	No Charge
Emergency Services	No Charge	No Charge	No Charge
Prescription Drug Benefit Applies to PERS Select, PERS Choice, and PERSCare	Generic	Preferred Brand	Non-Preferred Brand
Retail Pharmacy* <i>*short-term use</i>	\$5	\$20	\$50 <i>(\$40 if partial waiver of Non-Preferred Brand copayment approved)</i>
Retail Pharmacy Maintenance Medications filled after 2nd Fill** <i>** A maintenance medication taken longer than 60 days for chronic conditions.</i>	\$10	\$40	\$100 <i>(\$70 if partial waiver of Non-Preferred Brand copayment approved)</i>
Mail Service Pharmacy <i>A \$1,000 maximum copayment per person per calendar year applies</i>	\$10	\$40	\$100 <i>(\$70 if partial waiver of Non-Preferred Brand copayment approved)</i>

Summary of the Current Substantive Plan Provisions

CCPOA Association Plans (HMO)	
Basic Plan – Regions North and South	
	Copay and/or Benefit Limit
Hospital	
Inpatient	\$100 per admission
Outpatient Facility/Surgery Services	\$50/visit
Physician Services	
Office Visits	\$15/visit
Outpatient Visits	\$15/visit
Urgent Care Visits	\$15/visit
Allergy Testing/Treatment	No Charge
Vision Exam (Refraction)	\$15/visit
Hearing Exam/Screening	\$15/visit
Inpatient Hospital Visits	No Charge
Surgery/Anesthesia	No Charge
Ambulance Service	No Charge
Emergency Services	
<i>Waived if hospitalized or kept for observation – if admitted, \$100 per admission fee will apply</i>	\$75/visit
Prescription Drug Benefit	
Deductible	\$50 calendar year Tier 2, 3, 4 deductible per member, not to exceed \$150 per family
Retail Pharmacy	\$10/Tier 1 \$25/Tier 2 \$50/Tier 3 and 4
Mail Order Program (up to 90-day supply)	\$20/Tier 1 \$50/Tier 2 \$100/Tier 3

Summary of the Current Substantive Plan Provisions

CCPOA Association Plans (HMO) Medicare Plan Supplement to Original Medicare	
	Copay and/or Benefit Limit
Hospital Inpatient Outpatient Surgery	\$100 per admission No Charge
Physician Services Office Visits Outpatient Visits Urgent Care Visits Allergy Testing/Treatment Vision Exam (Refraction) Hearing Exam/Screening Inpatient Hospital Visits Surgery/Anesthesia	\$10/visit \$10/visit \$10/visit No Charge \$10/visit \$15/visit No Charge No Charge
Ambulance Service	No Charge
Emergency Services	No Charge
Prescription Drug Benefit Retail Pharmacy (up to 30-day supply) Mail Order Program (up to 90-day supply)	\$5/Tier 1 \$20/Tier 2 \$35/Tier 3 \$50/Tier 4 and 5 \$10/Tier 1 \$40/Tier 2 \$70/Tier 3 \$150/Tier 4 and 5

Summary of the Current Substantive Plan Provisions

CAHP & PORAC Association Plans (PPOs)				
Basic Plans				
	CAHP Copay/Limits		PORAC Copay/Limits	
	PPO	Non-PPO	PPO	Non-PPO
Calendar Year Deductible				
Individual	None	None	\$300	\$600
Family	None	None	\$900	\$1,800
Out-of-Pocket Maximum	\$2,000/member \$4,000/family	None None	\$3,000/individual or \$6,000/family (Combined PPO and non-PPO)	
Lifetime Maximum	None	None	None	None
Hospital				
Inpatient	10%	Varies. See EOC	10%	10% (varies)
Outpatient	\$50 (exceptions may apply)	\$50 (exceptions may apply)	10%	10% (varies)
Physician Services				
Office Visits	\$15	40%	\$20	10%
Outpatient Visits	10%	40%	10%	10%
Urgent Care Visits	\$15	40%	10%	10%
Allergy Testing/Treatment	10%	40%	10%	10%
Vision Exam (Refraction)	Not Covered	Not Covered	Not Covered	Not Covered
Hearing Exam/Screening	10%	40%	20%	20%
Inpatient Hospital Visits	10%	40%	10%	10% (varies)
Surgery/Anesthesia	10%	40%	10%	10% (varies)
Ambulance Service	20%	20%	20%	20%
Emergency Services				
Emergency	\$50* + 10%	\$50* + 10%	10%	10%
Non-Emergency	\$50* + 10%	\$50* + 40%	50%	50%
<i>* If admitted to the hospital on an inpatient basis, the \$50 copayment will be reduced to \$25</i>				
Prescription Drug Benefit				
Retail Pharmacy	\$6/generic	\$6/generic	\$10/generic	\$10/generic
CAHP (up to 30-day supply)	\$25/single source	\$25/single source	\$25/ formulary	\$25/ formulary
PORAC (up to 34-day supply or 100 pills/units, whichever is more)	\$35/multi-source	\$35/multi-source	brand name	brand name
Retail Pharmacy			\$45/non-formulary brand	\$45/non-formulary brand
Maintenance Medications	\$12/generic	\$12/generic	Not Applicable	Not Applicable
filled after 2nd Fill**	\$50/single source	\$50/single source		
CAHP (up to 30-day supply)	\$70/multi-source	\$70/multi-source		
** A maintenance medication taken longer than 60 days for chronic conditions.				
Mail Order Program	\$12/generic	\$12/generic	\$20/generic	Not Applicable
CAHP (up to 90-day supply)	\$50/single source	\$50/single source	\$40/ formulary	
PORAC (up to 90-day supply or 100 pills/units, whichever is more)	\$70/multi-source	\$70/multi-source	brand name	
			\$75/non-formulary brand	

Summary of the Current Substantive Plan Provisions

CAHP & PORAC Association Plans (PPOs) PPO Supplement to Original Medicare		
	CAHP Copays/Limits	PORAC Copays/Limits
Deductibles	\$100/individual \$200/family <i>(Major Medical deductible)</i>	\$100/individual \$200/family <i>(Major Medical deductible)</i>
Hospital		
Inpatient	No Charge	No charge. Plan pays after Medicare benefits are exhausted. See EOC
Outpatient	No Charge	No Charge
Physician Services		
Office Visits	\$10/visit	No Charge
Outpatient Visits	No Charge	No Charge
Urgent Care Visits	No Charge	No Charge
Allergy Testing/Treatment	No Charge	No Charge
Vision Exam (Refraction)	Not Covered	20%; one exam/ calendar year
Hearing Exam/Screening	No Charge	20%; \$50/exam in connection with hearing aid purchase
Inpatient Hospital Visits	No Charge	No Charge
Surgery/Anesthesia	No Charge	No Charge
Ambulance Service	No Charge if Medicare approved 20% if not Medicare approved	No Charge
Emergency Services	No Charge if Medicare approved 20% if not Medicare approved	No Charge
Prescription Drug Benefit		
Retail Pharmacy <i>(up to 30-day supply)</i> CAHP: Diabetic supplies paid under medical benefit. PORAC: \$50 deductible/member for retail only	\$6/generic \$25/preferred \$35/non-preferred	\$10/generic \$25/formulary brand name \$45/non-formulary brand name
Retail Pharmacy Maintenance Medications filled after 2nd fill* CAHP <i>(up to 30-day supply)</i> * A maintenance medication taken longer than 60 days for chronic conditions.	\$12/generic \$50/preferred \$70/non-preferred	
Mail Order Program <i>(90-day supply)</i>	\$12/generic \$50/preferred \$70/non-preferred	\$20/generic \$40/single source \$75/multi-source

Summary of the Current Substantive Plan Provisions

State Sponsored Dental Plan			
BENEFITS	INDEMNITY	PREFERRED PROVIDER OPTION	PREPAID
Type of Plan	Fee-for-Service Plan, this plan provides reimbursement for services rendered.	Plan provides maximum benefit when you visit an in-network PPO dentist.	Plan pays enrollee's chosen dentist a monthly fixed rate to provide services as needed.
Dental Providers	Any licensed dentist. However, out-of-pocket expenses may be lower when visiting a Delta Dental PPO dentist.	Any licensed dentist, but maximum benefits when visiting a PPO network dentist. If an out-of-PPO network dentist is used, benefits are lower.	Must select a dental provider affiliated with the enrollee's prepaid plan.
Orthodontic Providers	May visit any orthodontist. However, out-of-pocket expenses may be lower when visiting a Delta Dental PPO dentist.	Must visit an in-PPO network orthodontist to receive maximum benefit.	Must use orthodontist affiliated with the enrollee's prepaid plan.
Changing Providers	May change dentists at any time.	May change at any time.	May change to another dentist affiliated with the plan, with prior approval.
Deductibles	Basic: \$50 per person, up to \$150 annual maximum per family.	\$25 per person, up to \$100 annual maximum per family, for PPO network dentists. \$75 per person up to \$200 annual maximum per family for non-PPO network dentists.	No deductible.
Co-payments	Member pays the co-payment and any deductibles and charges above the annual maximum for covered services when visiting a Delta Dental dentist. When visiting a non-Delta Dental dentist, member pays the difference between the dentist's submitted charges and Delta Dental's approved fees.	Member pays the co-payment and any deductibles and charges above the annual maximum for covered services when visiting a Delta Dental dentist. When visiting a non-Delta Dental dentist, member pays the difference between the dentist's submitted charges and Delta Dental's approved fees.	Co-payments for certain covered procedures. May require payment at time of treatment.
Plan Payments	Payments based on Delta Dental contracted fees or the maximum plan allowance when non-Delta Dental dentists are used.	Payments based on Delta Dental contracted fees or the maximum plan allowance when non-Delta Dental dentists are used.	Plan pays dentist monthly contract fee.
Maximum Benefits per Calendar Year	Basic: \$2,000 for employee, \$1,000 per dependent	\$2,000 for employee, \$2,000 per eligible dependent when PPO network dentists are used.	No maximum.
Maximum Lifetime Implant Benefit	Not a covered benefit.	Maximum lifetime benefit of \$2,500 for each employee and dependent, if using a PPO Plan provider.	Premier Access and Western Dental only.

Summary of the Current Substantive Plan Provisions

California State University Sponsored Dental Plan		
BENEFITS	Delta Dental Basic	DeltaCare Basic
Diagnostic and preventive benefits	75%, no deductible	No Cost
Basic benefits	75%, deductible applies	No Cost
Crowns, inlays, inlays and cast restoration benefits	50%, deductible applies	\$35 - \$50 per unit; plus additional cost for precious metals and porcelain on molars
Dentures	50%, deductible applies	Full – \$60 each; Partials – \$70 each
Orthodontic benefits	50%, maximum lifetime of \$1,000	\$1,400 plus \$350 start-up costs, Covers up to 24 months of active treatment
Annual Deductibles	\$50 Per Person/\$150 Per Family	No Deductible
Annual Maximum	\$1,500 Per Person	No Maximum

Summary of the Current Substantive Plan Provisions

2018 Health Plan Rates			
Basic Plans - HMO			
Plan	Employee Only	Employee & 1 Dep.	Employee & 2+ Dep.
Anthem Select HMO	\$796.73	\$1,593.46	\$2,071.50
Anthem Traditional HMO	\$841.34	\$1,682.68	\$2,187.48
Blue Shield	\$752.32	\$1,504.64	\$1,956.03
Health Net Salud y Más	\$471.51	\$943.02	\$1,225.93
Health Net SmartCare	\$790.73	\$1,581.46	\$2,055.90
Kaiser	\$717.38	\$1,434.76	\$1,865.19
Kaiser Out-of-State - Colorado	\$957.05	\$1,914.10	\$2,488.33
Kaiser Out-of-State - Georgia	\$957.05	\$1,914.10	\$2,488.33
Kaiser Out-of-State - Hawaii	\$957.05	\$1,914.10	\$2,488.33
Kaiser Out-of-State - Mid-Atlantic	\$957.05	\$1,914.10	\$2,488.33
Kaiser Out-of-State - Northwest	\$957.05	\$1,914.10	\$2,488.33
Sharp	\$624.70	\$1,249.40	\$1,624.22
UnitedHealthcare	\$704.59	\$1,409.18	\$1,831.93
Western Health Advantage	\$720.44	\$1,440.88	\$1,873.14
Basic Plans - PPO			
Plan	Employee Only	Employee & 1 Dep.	Employee & 2+ Dep.
Anthem EPO Del Norte	\$724.16	\$1,448.32	\$1,882.82
PERS Choice	\$724.16	\$1,448.32	\$1,882.82
PERS Select	\$661.29	\$1,322.58	\$1,719.35
PERSCare	\$776.19	\$1,552.38	\$2,018.09
Basic Association Plans			
Plan	Employee Only	Employee & 1 Dep.	Employee & 2+ Dep.
CAHP	\$651.83	\$1,265.43	\$1,655.07
CCPOA - North	\$752.64	\$1,508.47	\$2,036.58
CCPOA - South	\$620.63	\$1,244.40	\$1,681.49
PORAC	\$734.00	\$1,540.00	\$1,970.00

Summary of the Current Substantive Plan Provisions

2018 Health Plan Rates			
Supplement/Managed Medicare Plans - HMO			
Plan	Employee Only	Employee & 1 Dep.	Employee & 2+ Dep.
Anthem Traditional	\$370.34	\$740.68	\$1,111.02
Kaiser	\$316.34	\$632.68	\$949.02
Kaiser Out-of-State - Colorado	\$316.34	\$632.68	\$949.02
Kaiser Out-of-State - Georgia	\$316.34	\$632.68	\$949.02
Kaiser Out-of-State - Hawaii	\$316.34	\$632.68	\$949.02
Kaiser Out-of-State - Mid-Atlantic	\$316.34	\$632.68	\$949.02
Kaiser Out-of-State - Northwest	\$316.34	\$632.68	\$949.02
UnitedHealthcare	\$330.76	\$661.52	\$992.28
Supplement/Managed Medicare Plans - PPO			
Plan	Employee Only	Employee & 1 Dep.	Employee & 2+ Dep.
PERS Choice	\$345.97	\$691.94	\$1,037.91
PERS Select	\$345.97	\$691.94	\$1,037.91
PERSCare	\$382.30	\$764.60	\$1,146.90
Supplement/Managed Medicare Association Plans			
Plan	Employee Only	Employee & 1 Dep.	Employee & 2+ Dep.
CAHP	\$391.00	\$722.00	\$918.00
CCPOA - North	\$449.40	\$900.84	\$1,347.25
CCPOA - South	\$449.40	\$900.84	\$1,347.25
PORAC	\$487.00	\$970.00	\$1,551.00

Summary of the Current Substantive Plan Provisions

2018 Health Plan Rates			
Combination Plans (Employee in Basic Plan) - HMO			
Plan	1 Dep. In Supplement/ Managed Medicare	2+ Dep. In Supplement/ Managed Medicare	1 Dep. In Basic 1+ Dep. In Supplement/ Managed Medicare
Anthem Traditional	\$1,211.68	\$1,582.02	\$1,716.48
Kaiser	\$1,033.72	\$1,350.06	\$1,464.15
Kaiser Out-of-State - Colorado	\$1,273.39	\$1,589.73	\$1,847.62
Kaiser Out-of-State - Georgia	\$1,273.39	\$1,589.73	\$1,847.62
Kaiser Out-of-State - Hawaii	\$1,273.39	\$1,589.73	\$1,847.62
Kaiser Out-of-State - Mid-Atlantic	\$1,273.39	\$1,589.73	\$1,847.62
Kaiser Out-of-State - Northwest	\$1,273.39	\$1,589.73	\$1,847.62
UnitedHealthcare	\$1,035.35	\$1,366.11	\$1,458.10
Combination Plans (Employee in Basic Plan) - PPO			
Plan	1 Dep. In Supplement/ Managed Medicare	2+ Dep. In Supplement/ Managed Medicare	1 Dep. In Basic 1+ Dep. In Supplement/ Managed Medicare
Anthem EPO Del Norte	\$1,070.13	\$1,416.10	\$1,504.63
PERS Choice	\$1,070.13	\$1,416.10	\$1,504.63
PERS Select	\$1,007.26	\$1,353.23	\$1,404.03
PERSCare	\$1,158.49	\$1,540.79	\$1,624.20
Combination (Employee in Basic Plan) Association Plans			
Plan	1 Dep. In Supplement/ Managed Medicare	2+ Dep. In Supplement/ Managed Medicare	1 Dep. In Basic 1+ Dep. In Supplement/ Managed Medicare
CAHP	\$982.83	\$1,178.83	\$1,372.47
CCPOA - North	\$1,204.08	\$1,650.49	\$1,732.19
CCPOA - South	\$1,072.07	\$1,518.48	\$1,509.16
PORAC	\$1,217.00	\$1,798.00	\$1,647.00

Summary of the Current Substantive Plan Provisions

2018 Health Plan Rates			
Combination Plans (Employee in Supplement/Managed Medicare Plan) - HMO			
Plan	1 Dep. In Basic	2+ Dep. In Basic	1 Dep. In Supplement/ Managed Medicare 1+ Dep. In Basic
Anthem Traditional	\$1,211.68	\$1,716.48	\$1,245.48
Kaiser	\$1,033.72	\$1,464.15	\$1,063.11
Kaiser Out-of-State - Colorado	\$1,273.39	\$1,847.62	\$1,206.91
Kaiser Out-of-State - Georgia	\$1,273.39	\$1,847.62	\$1,206.91
Kaiser Out-of-State - Hawaii	\$1,273.39	\$1,847.62	\$1,206.91
Kaiser Out-of-State - Mid-Atlantic	\$1,273.39	\$1,847.62	\$1,206.91
Kaiser Out-of-State - Northwest	\$1,273.39	\$1,847.62	\$1,206.91
UnitedHealthcare	\$1,035.35	\$1,458.10	\$1,084.27
Combination Plans (Employee in Supplement/Managed Medicare Plan) - PPO			
Plan	1 Dep. In Basic	2+ Dep. In Basic	1 Dep. In Supplement/ Managed Medicare 1+ Dep. In Basic
Anthem EPO Del Norte	\$1,070.13	\$1,504.63	\$1,126.44
PERS Choice	\$1,070.13	\$1,504.63	\$1,126.44
PERS Select	\$1,007.26	\$1,404.03	\$1,088.71
PERSCare	\$1,158.49	\$1,624.20	\$1,230.31
Combination (Employee in Supplement/Managed Medicare Plan) Association Plans			
Plan	1 Dep. In Basic	2+ Dep. In Basic	1 Dep. In Supplement/ Managed Medicare 1+ Dep. In Basic
CAHP	\$1,004.60	\$1,394.24	\$1,111.64
CCPOA - North	\$1,205.23	\$1,733.34	\$1,428.95
CCPOA - South	\$1,073.17	\$1,510.26	\$1,337.93
PORAC	\$1,293.00	\$1,723.00	\$1,400.00

Summary of the Current Substantive Plan Provisions

2018 Dental Plan Rates - State Sponsored Plans			
Plan	Employee Only	Employee & 1 Dep.	Employee & 2+ Dep.
DeltaPremier ¹	\$50.83	\$88.75	\$128.28
Delta PPO ²	\$46.45	\$90.31	\$135.88
Safeguard SOC Enhanced Plan ³	\$16.06	\$27.18	\$33.48
Delta Care USA ³	\$18.87	\$30.97	\$42.84
Premier Access ³	\$15.80	\$25.59	\$35.84
Western Dental ³	\$15.16	\$25.02	\$35.49

¹ Employee Share: 1 party - \$12.71 / 2 party - \$22.19 / 3 or more party - \$32.07

² Employee Share: 1 party - \$11.61 / 2 party - \$22.58 / 3 or more party - \$33.97

³ Provided at no cost to the retiree

2018 Dental Plan Rates - California State University ⁴			
Plan	Employee Only	Employee & 1 Dep.	Employee & 2+ Dep.
Delta Dental PPO - Basic	\$29.86	\$56.40	\$113.25
DeltaCare USA - Basic	\$18.85	\$31.08	\$45.97

⁴ Provided at no cost to the retiree

SECTION D

SUMMARY OF THE PARTICIPANT DATA

A1. Summary of the Participant Data

A. Members Currently in Retired Status

1. Counts of Current Retirees by Medical/Rx Benefit Plan and Valuation Group
2. Counts of Current Retirees by Medical/Rx Benefit Plan and Coverage
3. Distribution of Current Retirees by Medical/Rx Benefit Plan and Coverage Type
4. Distribution of Retiree Medical/Rx Benefit by Age
5. Counts of Current Retirees by Dental Benefit Plan and Valuation Group
6. Counts of Current Retirees by Dental Benefit Plan and Coverage
7. Distribution of Current Retirees by Dental Benefit Plan and Coverage Type
8. Distribution of Retiree Dental Benefit Plan by Age

The members in the schedules referenced above include only those retirees who have elected to receive health care coverage or dental coverage through the State of California.

B. Members Currently in Active Status

1. Distribution of All Active Members by Age and Service

C. All Members

1. Counts of Current Active Participants and Retirees by Valuation Group

A1. Summary of the Participant Data

California State Employees													
Counts of Current Retirees by Medical/Rx Benefit Plan and Valuation Group													
	Bargaining Unit 1	Bargaining Unit 2	Bargaining Unit 3	Bargaining Unit 4	Bargaining Unit 5	Bargaining Unit 6	Bargaining Unit 7	Bargaining Unit 8	Bargaining Unit 9	Bargaining Unit 10	Bargaining Unit 11	Bargaining Unit 12	Bargaining Unit 13
Anthem Blue Cross	375	19	8	74	4	195	44	33	62	11	15	58	8
Blue Shield	2,108	96	101	653	81	1,758	496	390	422	91	100	521	60
Health Net	212	2	1	61	2	76	22	8	22	9	9	19	1
Kaiser	17,108	781	657	6,958	769	6,806	1,951	565	2,390	621	590	3,041	292
Kaiser Out-of-State	253	14	22	80	15	118	39	16	39	17	8	42	6
Sharp	55	5	3	22	2	38	21	21	21	-	6	18	-
UnitedHealthcare	5,337	267	299	2,629	66	1,262	653	263	803	242	247	1,270	85
PERS Choice	6,247	560	659	2,867	984	7,200	1,421	1,498	1,612	459	561	2,933	275
PERS Select	202	13	24	118	3	355	50	48	62	17	21	147	15
PERSCare	6,508	693	439	2,568	300	2,272	983	572	1,422	400	362	1,610	123
CAHP	1	-	-	-	4,371	-	5	-	-	-	-	-	-
CCPOA	4	1	-	1	-	3,594	-	-	-	-	-	1	-
PORAC	3	-	-	1	-	9	160	2	-	-	-	-	-
Western Health	145	-	2	14	1	24	9	1	13	3	3	4	-
Total	38,558	2,451	2,215	16,046	6,598	23,707	5,854	3,417	6,868	1,870	1,922	9,664	865
	Bargaining Unit 14	Bargaining Unit 15	Bargaining Unit 16	Bargaining Unit 17	Bargaining Unit 18	Bargaining Unit 19	Bargaining Unit 20	Bargaining Unit 21	CSU	Exempt Excluded Executive	Judicial	Other	Total
Anthem Blue Cross	6	13	4	22	25	23	19	8	148	28	9	20	1,231
Blue Shield	18	139	28	202	393	125	61	23	896	247	67	196	9,272
Health Net	2	5	-	5	22	3	14	2	39	22	3	3	564
Kaiser	247	1,443	283	1,334	1,850	1,195	524	333	8,821	1,559	270	3,457	63,845
Kaiser Out-of-State	2	14	5	24	36	17	7	7	275	32	5	81	1,174
Sharp	-	4	3	6	-	5	5	-	60	3	-	2	300
UnitedHealthcare	67	417	72	368	612	345	138	104	3,265	515	133	892	20,351
PERS Choice	64	589	512	869	1,177	917	278	141	8,942	830	223	2,709	44,527
PERS Select	2	24	17	34	31	28	21	3	207	19	8	33	1,502
PERSCare	80	316	511	656	706	747	109	143	8,045	819	218	4,992	35,594
CAHP	-	-	-	-	-	-	-	-	-	10	-	737	5,124
CCPOA	-	-	-	-	-	-	-	-	-	20	-	23	3,644
PORAC	-	-	-	-	-	-	-	-	55	5	-	8	243
Western Health	3	2	-	2	-	1	1	2	4	13	1	3	251
Total	491	2,966	1,435	3,522	4,852	3,406	1,177	766	30,757	4,122	937	13,156	187,622

A2. Summary of the Participant Data

California State Employees								
Counts of Current Retirees by Medical/Rx Benefit Plan and Coverage								
	One Party		Two Party		Family		Total	
	Male	Female	Male	Female	Male	Female	Male	Female
Anthem Blue Cross	114	302	302	266	169	78	585	646
Blue Shield	1,504	2,966	1,723	1,180	1,339	560	4,566	4,706
Health Net	58	176	81	110	91	48	230	334
Kaiser	10,514	23,428	14,458	10,180	3,452	1,813	28,424	35,421
Kaiser Out-of-State	195	494	291	157	25	12	511	663
Sharp	38	55	52	64	66	25	156	144
UnitedHealthcare	3,284	7,246	4,995	3,522	843	461	9,122	11,229
PERS Choice	7,182	13,357	13,871	6,262	2,902	953	23,955	20,572
PERS Select	188	287	451	235	246	95	885	617
PERSCare	5,911	15,987	8,259	4,423	724	290	14,894	20,700
CAHP	586	832	2,516	125	946	119	4,048	1,076
CCPOA	445	468	1,285	272	995	179	2,725	919
PORAC	20	29	115	13	56	10	191	52
Western Health	<u>25</u>	<u>82</u>	<u>30</u>	<u>63</u>	<u>36</u>	<u>15</u>	<u>91</u>	<u>160</u>
Total	30,064	65,709	48,429	26,872	11,890	4,658	90,383	97,239

A3. Summary of the Participant Data

California State Employees			
Distribution of Current Retirees by Medical/Rx Benefit Plan			
	Under 65	At Least 65	Total
Anthem Blue Cross	893	338	1,231
Blue Shield	8,693	579	9,272
Health Net	552	12	564
Kaiser	19,441	44,404	63,845
Kaiser Out-of-State	192	982	1,174
Sharp	297	3	300
UnitedHealthcare	3,084	17,267	20,351
PERS Choice	13,220	31,307	44,527
PERS Select	949	553	1,502
PERSCare	3,591	32,003	35,594
CAHP	2,194	2,930	5,124
CCPOA	2,797	847	3,644
PORAC	124	119	243
Western Health	<u>249</u>	<u>2</u>	<u>251</u>
Total	56,276	131,346	187,622
Distribution of Current Retirees by Coverage Type			
	Under 65	At Least 65	Total
One Party	21,921	73,852	95,773
Two Party	21,649	53,652	75,301
Family	<u>12,706</u>	<u>3,842</u>	<u>16,548</u>
Total	56,276	131,346	187,622

A4. Summary of the Participant Data

California State Employees			
Distribution of Retiree Medical/Rx Benefit by Age			
Attained Age	Male	Female	Total
Under 40	276	233	509
40-44	359	271	630
45-49	700	694	1,394
50-54	3,830	2,519	6,349
55-59	8,921	8,309	17,230
60-64	13,782	16,382	30,164
65-69	18,324	20,513	38,837
70-74	17,446	17,028	34,474
75-79	12,008	11,911	23,919
80-84	7,621	8,243	15,864
85-89	4,663	6,082	10,745
90 & Over	2,453	5,054	7,507
Totals	90,383	97,239	187,622

A5. Summary of the Participant Data

California State Employees													
Counts of Current Retirees by Dental Benefit Plan and Valuation Group													
	Bargaining Unit 1	Bargaining Unit 2	Bargaining Unit 3	Bargaining Unit 4	Bargaining Unit 5	Bargaining Unit 6	Bargaining Unit 7	Bargaining Unit 8	Bargaining Unit 9	Bargaining Unit 10	Bargaining Unit 11	Bargaining Unit 12	Bargaining Unit 13
Delta Dental PPO	5,642	316	351	2,460	542	4,043	950	415	1,284	246	271	1,518	178
Delta Dental	32,137	2,125	1,839	12,710	2,571	18,739	4,711	2,811	5,385	1,585	1,568	7,270	627
Safeguard	553	24	30	416	88	344	139	59	120	19	35	276	35
DeltaCare USA	1,013	23	56	801	32	304	106	28	98	26	48	504	19
CAHP/Blue Cross	-	-	-	-	3,266	-	2	-	-	-	-	-	-
Premier Access	24	-	1	11	1	25	3	3	-	2	-	6	1
Western Dental	<u>42</u>	<u>-</u>	<u>1</u>	<u>42</u>	<u>1</u>	<u>176</u>	<u>5</u>	<u>2</u>	<u>2</u>	<u>-</u>	<u>1</u>	<u>17</u>	<u>-</u>
Total	39,411	2,488	2,278	16,440	6,501	23,631	5,916	3,318	6,889	1,878	1,923	9,591	860
	Bargaining Unit 14	Bargaining Unit 15	Bargaining Unit 16	Bargaining Unit 17	Bargaining Unit 18	Bargaining Unit 19	Bargaining Unit 20	Bargaining Unit 21	CSU	Exempt Excluded Executive	Judicial	Other	Total
Delta Dental PPO	52	404	186	562	679	517	160	84	-	627	128	1,917	23,532
Delta Dental	402	2,096	1,244	2,853	3,605	2,748	939	680	29,402	3,452	795	10,437	152,731
Safeguard	8	144	12	68	303	60	40	2	-	52	14	606	3,447
DeltaCare USA	26	320	7	83	120	60	55	12	1,573	45	5	291	5,655
CAHP/Blue Cross	-	-	-	-	-	-	-	-	-	1	-	22	3,291
Premier Access	1	5	-	-	3	3	1	-	-	2	-	1	93
Western Dental	<u>-</u>	<u>15</u>	<u>-</u>	<u>4</u>	<u>21</u>	<u>7</u>	<u>5</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>6</u>	<u>347</u>
Total	489	2,984	1,449	3,570	4,731	3,395	1,200	778	30,975	4,179	942	13,280	189,096

A6. Summary of the Participant Data

California State Employees								
Counts of Current Retirees by Dental Benefit Plan and Coverage								
	One Party		Two Party		Family		Total	
	Male	Female	Male	Female	Male	Female	Male	Female
Delta Dental PPO	3,015	7,145	6,767	3,765	2,046	794	11,828	11,704
Delta Dental	24,153	53,084	39,637	24,031	8,315	3,511	72,105	80,626
Safeguard	649	1,469	774	386	113	56	1,536	1,911
DeltaCare USA	1,060	2,381	1,135	746	199	134	2,394	3,261
CAHP/Blue Cross	359	300	1,744	103	704	81	2,807	484
Premier Access	12	28	26	14	9	4	47	46
Western Dental	<u>57</u>	<u>89</u>	<u>75</u>	<u>43</u>	<u>63</u>	<u>20</u>	<u>195</u>	<u>152</u>
Total	29,305	64,496	50,158	29,088	11,449	4,600	90,912	98,184

A7. Summary of the Participant Data

California State Employees			
Distribution of Current Retirees by Dental Benefit Plan			
	Under 65	At Least 65	Total
Delta Dental PPO	8,242	15,290	23,532
Delta Dental	42,244	110,487	152,731
Safeguard	731	2,716	3,447
DeltaCare USA	1,390	4,265	5,655
CAHP/Blue Cross	1,642	1,649	3,291
Premier Access	58	35	93
Western Dental	<u>246</u>	<u>101</u>	<u>347</u>
Total	54,553	134,543	189,096
Distribution of Current Retirees by Dental Benefit Coverage Type			
	Under 65	At Least 65	Total
One Party	20,755	73,046	93,801
Two Party	21,623	57,623	79,246
Family	<u>12,175</u>	<u>3,874</u>	<u>16,049</u>
Total	54,553	134,543	189,096

A8. Summary of the Participant Data

California State Employees			
Distribution of Retiree Dental Benefit Plan by Age			
Attained Age	Male	Female	Total
Under 40	241	205	446
40-44	328	235	563
45-49	638	631	1,269
50-54	3,599	2,317	5,916
55-59	8,542	8,078	16,620
60-64	13,547	16,192	29,739
65-69	18,449	20,780	39,229
70-74	17,862	17,504	35,366
75-79	12,362	12,209	24,571
80-84	7,877	8,513	16,390
85-89	4,884	6,329	11,213
90 & Over	2,583	5,191	7,774
Totals	90,912	98,184	189,096

B1. Summary of the Participant Data

California State Employees								
Distribution of All Active Members by Age and Service								
Attained Age	Years of Service to Valuation Date							Totals
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 Plus	No.
Under 20	57	-	-	-	-	-	-	57
20-24	3,660	10	-	-	-	-	-	3,670
25-29	17,939	1,844	19	-	-	-	-	19,802
30-34	18,287	8,122	3,709	9	-	-	-	30,127
35-39	13,584	8,088	10,654	2,188	26	-	-	34,540
40-44	9,308	6,129	9,619	7,975	1,683	24	-	34,738
45-49	7,664	5,197	8,559	8,845	7,066	1,840	48	39,219
50-54	6,120	4,360	6,839	7,279	6,225	5,497	1,637	37,957
55-59	5,310	3,964	5,776	6,219	4,705	4,777	4,349	35,100
60-64	3,255	2,973	4,149	4,422	2,931	2,695	3,079	23,504
65 & Over	2,053	1,967	2,649	2,471	1,422	1,230	1,572	13,364
Totals	87,237	42,654	51,973	39,408	24,058	16,063	10,685	272,078

C1. Summary of the Participant Data

California State Employees													
Counts of Current Active Participants and Retirees by Valuation Group													
	Bargaining Unit 1	Bargaining Unit 2	Bargaining Unit 3	Bargaining Unit 4	Bargaining Unit 5	Bargaining Unit 6	Bargaining Unit 7	Bargaining Unit 8	Bargaining Unit 9	Bargaining Unit 10	Bargaining Unit 11	Bargaining Unit 12	Bargaining Unit 13
Active Participants	66,378	4,404	1,735	22,745	7,461	31,154	7,574	6,552	12,462	3,851	2,371	12,717	958
Retired Participants	<u>38,558</u>	<u>2,451</u>	<u>2,215</u>	<u>16,046</u>	<u>6,598</u>	<u>23,707</u>	<u>5,854</u>	<u>3,417</u>	<u>6,868</u>	<u>1,870</u>	<u>1,922</u>	<u>9,664</u>	<u>865</u>
Total Participants	104,936	6,855	3,950	38,791	14,059	54,861	13,428	9,969	19,330	5,721	4,293	22,381	1,823
	Bargaining Unit 14	Bargaining Unit 15	Bargaining Unit 16	Bargaining Unit 17	Bargaining Unit 18	Bargaining Unit 19	Bargaining Unit 20	Bargaining Unit 21	CSU	Exempt Excluded Executive	Judicial	Other	Total
Active Participants	387	5,172	1,598	6,170	6,414	5,791	5,102	601	47,995	6,643	1,609	4,234	272,078
Retired Participants	<u>491</u>	<u>2,966</u>	<u>1,435</u>	<u>3,522</u>	<u>4,852</u>	<u>3,406</u>	<u>1,177</u>	<u>766</u>	<u>30,757</u>	<u>4,122</u>	<u>937</u>	<u>13,156</u>	<u>187,622</u>
Total Participants	878	8,138	3,033	9,692	11,266	9,197	6,279	1,367	78,752	10,765	2,546	17,390	459,700

SECTION E

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Summary of Actuarial Assumptions and Methods

The actuarial assumptions used in the actuarial valuation are shown in this section. Actuarial assumptions that are specific to certain groups (i.e., State Miscellaneous, State Industrial, CHP, POFF, State Safety, JRS and LRS) are discussed under the Demographic and Certain Economic Assumptions subsection and were based on the most recent pension actuarial valuation reports produced by CalPERS. Assumptions that are common to all types of members and unique to the OPEB valuation are shown in the Healthcare and Other Economic Assumptions subsection. The pension related actuarial assumptions were updated by CalPERS, and were first recognized in the OPEB actuarial valuation as of June 30, 2018. The healthcare related assumptions are based on the recommendations from the 2015 experience review for the years July 1, 2007, to June 30, 2014, and were approved by the SCO.

Actuarial Assumptions and Methods

An actuarial valuation measures the program's funded status and annual funding or accounting costs based on the actuarial assumptions and methods selected. The funded status compares assets to actuarial accrued liabilities, and the annual cost represents the normal cost plus an amortization of the unfunded actuarial accrued liability.

In the actuarial valuation process, certain economic and demographic assumptions are made relating to the projection of benefits and the timing and duration of benefits. The stream of expected projected benefits is discounted to a present value as of the actuarial valuation date. The present value is then spread over past service (actuarial accrued liability), and service for the current year (normal cost) based on the chosen actuarial cost method.

The Actuarial Valuation of the State's OPEB is similar to the Actuarial Valuations performed for the State's pension plans. The demographic assumptions (rates of retirement, termination, disability and mortality, etc.) used in this OPEB Actuarial Valuation were identical to those used in the most recent CalPERS Actuarial Valuations. The demographic assumptions are disclosed in Section F of this report.

In addition, the actuarial cost method (entry-age normal) is identical to the one used in the most recent CalPERS Actuarial Valuation for the State Plan of the California Public Employees' Retirement System.

The discount rate selected was 7.00 percent for the actuarial valuation of the fully funded policy. A discount rate of 7.00 percent can be supported for the actuarial valuation as of June 30, 2018, provided the sponsor makes pre-funding contributions as defined by statute and pre-funding contributions are invested in CalPERS CERBT Strategy 1.

Summary of Actuarial Assumptions and Methods

For purposes of GASB Nos. 74 and 75 financial reporting, liabilities are discounted using a blended discount rate. The blended discount rate is based on a (1) 20-year general obligation bond index if benefits are financed on a pay-as-you-go basis and (2) the expected return on trust assets if pre-funding assets are available to pay benefits. The following table shows the blended discount rates at June 30, 2017, and June 30, 2018, for each respective actuarial valuation group.

BLENDED DISCOUNT RATES		
Actuarial Valuation Group	June 30, 2017	June 30, 2018
Professional, Administrative, Financial and Staff Services (BU1)	3.910%	3.991%
Attorneys and Hearing Officers (BU2)	3.996%	4.072%
Professional Educators and Librarians (BU3)	3.825%	3.902%
Office and Allied (BU4)	3.961%	4.033%
Highway Patrol (BU5)	4.219%	4.282%
Corrections (BU6)	4.074%	4.133%
Protective Services and Public Safety (BU7)	3.947%	4.066%
Firefighters (BU8)	4.108%	4.152%
Professional Engineers (BU9)	3.866%	3.953%
Professional Scientific (BU10)	3.993%	4.084%
Engineering and Scientific Technicians (BU11)	3.859%	3.926%
Craft and Maintenance (BU12)	3.920%	4.010%
Stationary Engineers (BU13)	3.825%	3.906%
Printing and Allied Trades (BU14)	3.809%	3.885%
Allied Services (BU15)	3.974%	4.058%
Physicians, Dentists and Podiatrists (BU16)	4.041%	4.112%
Registered Nurses (BU17)	3.961%	4.050%
Psychiatric Technicians (BU18)	3.991%	4.080%
Health and Social Services/Professional (BU19)	4.066%	4.159%
Medical and Social Services (BU20)	4.137%	4.219%
Educational Consultant and Library (BU21)	3.822%	3.872%
California State University	3.560%	3.620%
Judicial Branch	4.043%	4.118%
Exempt/Excluded/Executive	3.560%	3.620%
Other	3.560%	3.620%

Other assumptions and methods unique to OPEB valuations are consistent with CalPERS OPEB assumption parameters, with the exception of the dental trend rates, as follows:

- Healthcare trend – Select and ultimate healthcare trend rates were developed separately for the PPO, prescription drug, HMO and dental plans. For the Pre-Medicare medical and drug plans, the select and ultimate trend rates were set at actual increases for 2019 and 7.50 percent in 2020 graded down over a six year period until an ultimate trend rate of 4.50 percent is reached in 2026. For the Post-Medicare medical and drug plans, the select and ultimate trend rates were set at actual increases for 2019 and 8.00 percent in 2020 graded down over a seven-year period until an ultimate trend rate of 4.50 percent is reached in 2027. Based on a review of supporting

Summary of Actuarial Assumptions and Methods

documentation provided by CalPERS and a review of various publically available trend studies, the 2019 trend rate for the PPO per capita claims costs is assumed to be 5.00 percent for Pre-Medicare medical and Pre-Medicare prescription drug, and 4.00 percent for Post-Medicare medical and Post-Medicare prescription drug. Beginning in the year 2023 for Future Retirees, the ultimate trend rate on the Employer's explicit contribution includes an additional 0.14 percent to account for the Excise Tax under Federal Healthcare Reform. For the dental plans, select and ultimate trend rates were set at 0.26 percent for 2019 and 4.50 percent for 2020 and beyond. The trend rates are net of any increases due to the potential wear-away of the EGWP-Wrap design savings in 2026. Effective trend for the Post-Medicare plans affected by the EGWP-Wrap design would be higher until the year 2026. These higher effective trend rates gradually eliminate the approximately 20 percent savings for PERS Care, 24 percent savings for PERS Choice and 18 percent savings for the HMO plans remaining as of June 30, 2018, due to the EGWP-Wrap plan design. After eight years, the ultimate savings are assumed to equal 9 percent for PERS Care, 12 percent for PERS Choice, and 7 percent for HMO plans. The dental trend rate assumption deviated slightly from the CalPERS OPEB assumption parameters because trend rates were assumed to remain level.

- Per capita claim costs – Claims costs were developed separately for the PPO, prescription drug, HMO and dental plans. Costs were developed for pre-Medicare and post-Medicare coverage at each respective age and gender, using overall average costs adjusted for morbidity.
- Other healthcare assumptions – The proportion of members selecting a particular plan and coverage at retirement was based on the most current census and enrollment data.

Summary of Actuarial Assumptions and Methods

Healthcare and Other Economic Assumptions

Health Cost and Premium Increases – See table below

Year	Trend Assumption - Per Capita Costs						
	PPO Plans				HMO Plans		Dental
	Pre-Medicare		Post-Medicare		Pre-Medicare	Post-Medicare	
	Medical	Rx	Medical	Rx	Medical/Rx	Medical/Rx	
2019	5.00%	5.00%	4.00%	4.00%	0.58%	-1.21%	0.26%
2020	7.50%	7.50%	8.00%	8.00%	7.50%	8.00%	4.50%
2021	7.00%	7.00%	7.50%	7.50%	7.00%	7.50%	4.50%
2022	6.50%	6.50%	7.00%	7.00%	6.50%	7.00%	4.50%
2023	6.00%	6.00%	6.50%	6.50%	6.00%	6.50%	4.50%
2024	5.50%	5.50%	6.00%	6.00%	5.50%	6.00%	4.50%
2025	5.00%	5.00%	5.50%	5.50%	5.00%	5.50%	4.50%
2026	4.50%	4.50%	5.00%	5.00%	4.50%	5.00%	4.50%
2027 and Beyond	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%

Year	Trend Assumption - Premiums and Statutory Cap						
	PPO Plans		HMO Plans		Dental	Part B	Statutory Cap
	Pre-Medicare	Post-Medicare	Pre-Medicare	Post-Medicare			
	Medical/Rx	Medical/Rx	Medical/Rx	Medical/Rx			
2019	5.79%	3.96%	0.58%	-1.21%	0.26%	1.12%	1.30%
2020	7.50%	8.00%	7.50%	8.00%	4.50%	4.50%	7.50%
2021	7.00%	7.50%	7.00%	7.50%	4.50%	4.50%	7.00%
2022	6.50%	7.00%	6.50%	7.00%	4.50%	4.50%	6.50%
2023	6.00%	6.50%	6.00%	6.50%	4.50%	4.50%	6.00%*
2024	5.50%	6.00%	5.50%	6.00%	4.50%	4.50%	5.50%
2025	5.00%	5.50%	5.00%	5.50%	4.50%	4.50%	5.00%
2026	4.50%	5.00%	4.50%	5.00%	4.50%	4.50%	4.50%
2027 and Beyond	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%

*For Future Retirees, the ultimate trend rate on the Employer's explicit contribution includes an additional 0.14 percent to account for the Excise Tax under Federal Healthcare Reform.

All increases are assumed to occur January 1st of each year beginning January 1, 2019.

The trend rates shown above are net of any increases due to the potential wear-away of the EGWP-Wrap design changes by 2026. Effective trend for the Post-Medicare plans affected by the EGWP-Wrap design changes would be higher until the year 2026. These higher effective trend rates gradually eliminate the approximately 20 percent savings for PERS Care, 24 percent savings for PERS Choice and 18 percent savings for the HMO plans remaining as of June 30, 2018, due to the EGWP-Wrap plan design. After eight years, the ultimate savings are assumed to equal 9 percent for PERS Care, 12 percent for PERS Choice, and 7 percent for HMO plans.

Retired members as of June 30, 2018, are assumed to pay \$130.00 in 2018 and other members as of June 30, 2018, are assumed to pay \$134.00 in 2018.

Summary of Actuarial Assumptions and Methods

Participation percentage: Participation in the health benefits program is based upon the percent of premium that the employer contribution covers at retirement. We have assumed the following election percentages:

Employer Contribution Percentage of Premium	Participation Rate for Retirees with Healthcare Coverage While Active	Participation Rate for Retirees without Healthcare Coverage While Active
less than 50%	75%	15%
50% to 75%	90%	15%
75% to 90%	95%	25%
90% to 100%	98%	50%

Percent of Disabilities Treated as Post-Medicare: Five percent of Public Safety disabilities and 35 percent of all other disabilities are assumed to be eligible for Medicare.

Coverage and Continuance Assumptions: It is assumed that 40 percent of participating members will elect one-party coverage, while 60 percent will elect two-party coverage. Of the members electing two-party coverage, we assumed that 100 percent of surviving spouses would continue coverage after the death of the retiree.

Price Inflation: Price inflation is assumed to be 2.50 percent.

Wage inflation: Wage inflation is assumed to be 2.75 percent.

Summary of Actuarial Assumptions and Methods

Aging Factors: In any given year, the cost of medical and prescription drug benefits vary by age. As the ages of employees and retirees in the covered population increase so does the cost of benefits. Morbidity tables are employed to develop Per Capita Costs at every relevant age. The following table represents the percent by which the cost of benefits for non-disabled lives at one age is higher than the cost for the previous age. For example, according to the following table, the cost of benefits for a male in the PPO plan age 55 is 2.89 percent higher than for one age 54. These percentages below are separate from the annual Medical Trend, which operates to increase costs independent of and in addition to the Aging Factors shown below. These factors, with the exception of the Pre-Medicare HMO rates, were developed using actual experience.

Aging factors for the PPO and prescription drug plans were based on gross claim and enrollment experience data broken out by five-year age intervals, for calendar years 2010 through 2013. Average gross costs were developed by gender at each age interval for each respective calendar year. These costs were weighted, smoothed and the average increase at each age was estimated using interpolation formulas. Aging factors for the HMO were calculated by adjusting the PPO medical factors to account for relative differences between HMO and PPO plans.

Sample Ages	Cost Increase by Age					
	Medical - PPO		Rx - PPO		HMO	
	Male	Female	Male	Female	Male	Female
45	3.26%	1.48%	7.27%	6.56%	3.21%	1.58%
50	3.07%	1.61%	4.54%	4.20%	3.14%	1.67%
55	2.89%	1.69%	3.04%	2.84%	3.20%	1.90%
60	2.73%	1.75%	2.04%	1.92%	2.88%	1.98%
65	2.58%	1.78%	1.30%	1.22%	2.65%	1.89%
70	2.44%	1.80%	0.69%	0.64%	2.48%	1.85%
75	2.32%	1.79%	0.15%	0.11%	2.33%	1.82%
80	2.20%	1.78%	0.00%	0.00%	2.21%	1.79%
85	2.10%	1.75%	0.00%	0.00%	2.10%	1.76%
90	2.00%	1.72%	0.00%	0.00%	2.00%	1.73%

Aged Per Capita Claim Cost – Medical and Prescription: The following tables represent the assumed per capita claims costs for sample ages. Costs were developed separately for PERS Choice, PERSCare and the HMO plans. Costs for the PERS Choice and PERSCare plans were based on paid and incurred experience and enrollment information. Costs for the HMO plans were based on the aggregate premium and enrollment data for active and retired members. The per capita costs for PERS Select and the two association PPOs (CAHP and PORAC) were developed using costs for PERS Choice adjusted by the ratio of single premium for the association plan and PERS Choice. The average costs for each respective plan were age adjusted using the morbidity factors described above.

Summary of Actuarial Assumptions and Methods

Costs for Retirees and Spouses Expected Monthly Per Capita Costs				
Age	PERS Choice - PPO			
	Medical		Prescription	
	Male	Female	Male	Female
50	\$568.21	\$568.21	\$158.15	\$158.15
55	660.91	615.34	197.49	194.27
60	762.19	669.24	229.38	223.46
65	154.69	129.47	233.36	225.92
70	175.70	141.43	248.96	240.01
75	198.23	154.60	257.71	247.73
80	222.29	168.96	259.59	249.07

Costs for Retirees and Spouses Expected Monthly Per Capita Costs				
Age	PERSCare - PPO			
	Medical		Prescription	
	Male	Female	Male	Female
50	\$779.71	\$779.71	\$184.88	\$184.88
55	906.91	844.38	230.87	227.10
60	1,045.89	918.34	268.15	261.23
65	169.68	142.02	250.80	242.80
70	192.72	155.14	267.57	257.95
75	217.44	169.58	276.97	266.25
80	243.83	185.34	279.00	267.69

Costs for Retirees and Spouses (Expected Monthly Per Capita Costs)		
Age	All HMO Plans	
	Medical/Rx	
	Male	Female
50	\$703.36	\$777.91
55	821.58	844.20
60	961.30	925.29
65	279.16	257.14
70	318.14	282.43
75	359.51	309.56
80	403.44	338.78

Summary of Actuarial Assumptions and Methods

PPO Per Capita Claim Cost Expense Load: The following table shows the administrative expenses, per member per month, included in the PPO medical per capita claims costs before application of the aging factors.

Medical Plan	Per Member Per Month Expenses
PERS Choice - Pre-Medicare	\$25.54
PERS Choice - Post-Medicare	\$31.32
PERSCare - Pre-Medicare	\$28.74
PERSCare - Post-Medicare	\$33.31

Per Capita Claim Cost – Dental: The following table represents the assumed per capita claims costs for sample ages. Costs were developed separately for DPO/Indemnity and the Pre-Paid Plans, based on premium, claim and enrollment data for calendar 2018 and 2019. Dental costs do not vary by age or gender.

Costs for Retirees and Spouses Expected Monthly Per Capita Costs - Non CSU Retirees				
Age	Dental Plans			
	DPO/Indemnity		Pre-Paid Plans	
	First Person	Second Person	First Person	Second Person
50	\$51.91	\$38.71	\$19.18	\$11.46
55	51.91	38.71	19.18	11.46
60	51.91	38.71	19.18	11.46
65	51.91	38.71	19.18	11.46
70	51.91	38.71	19.18	11.46
75	51.91	38.71	19.18	11.46
80	51.91	38.71	19.18	11.46

Costs for Retirees and Spouses Expected Monthly Per Capita Costs - CSU Retirees				
Age	Dental Plans			
	DPO/Indemnity		Pre-Paid Plans	
	First Person	Second Person	First Person	Second Person
50	\$33.00	\$28.56	\$20.81	\$12.46
55	33.00	28.56	20.81	12.46
60	33.00	28.56	20.81	12.46
65	33.00	28.56	20.81	12.46
70	33.00	28.56	20.81	12.46
75	33.00	28.56	20.81	12.46
80	33.00	28.56	20.81	12.46

Summary of Actuarial Assumptions and Methods

Adjustments for Disabled Members: Claims for disabled members were increased by 10 percent if not eligible for Medicare and 40 percent if eligible for Medicare.

Adjustments for Children: Claims for current retirees and survivors were increased by eight percent for medical claims and 10 percent for dental claims until the retiree or survivor reaches age 65. The composite claims were increased for future retirees and survivors of future retirees by two percent for medical claims and three percent for dental claims until the retiree or survivor reaches age 65.

Medicare Part B Premiums: Retired members as of June 30, 2018, are assumed to pay \$130.00 in 2018 and other members as of June 30, 2018, are assumed to pay \$134.00 in 2018. Our actuarial valuation assumes Social Security benefits increase at 3.0 percent per year and will be sufficient to cover projected increases in the Part B premium. Our actuarial valuation does not consider the member's income when estimating Part B premiums.

Employer Group Waiver Plan: The per capita costs include approximately 20 percent savings for PERSCare, 24 percent savings for PERS Choice and 18 percent savings for the other Medicare plans as of June 30, 2018, due to the EGWP-Wrap plan design. It was assumed that the EGWP savings would wear away ratably over the next eight years, and the trend rates for post-Medicare prescription benefits were adjusted accordingly.

Projection Assumptions: Operating expenses are assumed to be equal to 0.02 percent of CERBT assets at the beginning of the year plus 0.25 percent of expected employer benefit payments during the year. Pre-funding contributions are assumed to increase proportionately until the targeted year that 100 percent of normal costs are required to be made. Benefits are paid from each respective CERBT account when the full-funding actuarial accrued liability is fully financed.

Closed Group Projections: The development of the single equivalent discount rate for each respective valuation group was based on a closed group projection of assets and liabilities to determine the plan year that the valuation group is fully funded. For this purpose, we assumed: (i) invested assets would not be used to pay benefits until the valuation group is fully funded, (ii) invested assets would earn 7.00 percent per year and (iii) actuarial liabilities are discounted using a rate of 7.00 percent. The projections do not include liabilities or assets for future members because it is assumed that the normal costs for future members will be fully financed by the sponsor and active members resulting in no unfunded actuarial liability for future members. The total pre-funding contributions, based on the total normal costs for both current members and future members, are not included in this report.

Summary of Actuarial Assumptions and Methods

Actuarial Method

The individual entry-age normal actuarial cost method of valuation was used in determining liabilities and normal cost. Differences between assumed experience and actual experience (“actuarial gains and/or losses”) become part of actuarial accrued liabilities.

In performing the actuarial valuation using the Entry Age Normal (EAN) method, the same salary scale was used in this actuarial valuation as was used in the pension actuarial valuations for these groups. This results in normal cost dollars that increase at the same rate as the normal cost dollars in the pension actuarial valuation for this same group of people. Normal cost for actives hired after the valuation date was not included in this actuarial valuation and was not factored into the Actuarially Determined Contribution (ADC).

Unfunded actuarial accrued liabilities are amortized from June 30, 2018, for purposes of calculating the ADC to produce payments (principal & interest), which are a level percent of payroll, over a closed 30-year period effective as of June 30, 2017, with 29 years remaining as of June 30, 2018.

SECTION F

PENSION-RELATED ASSUMPTIONS

Pension-Related Assumptions

Economic Assumptions:

Salary Growth

Annual increases vary by entry age and service. See sample rates in table below. Wage inflation assumption is added to these factors for total salary growth.

Annual Percentage Increase						
Duration of Service	State Miscellaneous Tier 1 & Tier 2			Industrial		
	Entry Age			Entry Age		
	20	30	40	20	30	40
0	6.4%	5.6%	4.4%	7.3%	7.0%	6.4%
3	5.3%	4.4%	3.1%	5.1%	4.7%	3.9%
5	4.3%	3.6%	2.4%	4.0%	3.6%	2.8%
10	2.3%	1.8%	1.2%	2.7%	2.2%	1.4%
15	1.5%	1.2%	0.8%	1.8%	1.5%	1.1%
20	1.0%	0.9%	0.6%	1.2%	1.0%	0.8%
25	0.7%	0.6%	0.4%	0.8%	0.7%	0.6%
30	0.5%	0.4%	0.3%	0.5%	0.5%	0.4%

Duration of Service	Safety			POFF		
	Entry Age			Entry Age		
	20	30	40	20	30	40
0	5.0%	5.0%	5.0%	14.7%	14.7%	14.7%
3	3.1%	3.1%	3.1%	6.7%	6.7%	6.7%
5	2.1%	2.1%	2.1%	4.0%	4.0%	4.0%
10	0.8%	0.8%	0.8%	1.2%	1.2%	1.2%
15	0.7%	0.7%	0.7%	0.5%	0.5%	0.5%
20	0.6%	0.6%	0.6%	1.4%	1.4%	1.4%
25	0.5%	0.5%	0.5%	1.5%	1.5%	1.5%
30	0.5%	0.5%	0.5%	1.0%	1.0%	1.0%

Duration of Service	CHP		
	Entry Age		
	20	30	40
0	6.8%	6.8%	6.8%
3	4.0%	4.0%	4.0%
5	2.4%	2.4%	2.4%
10	1.0%	1.0%	1.0%
15	1.0%	1.0%	1.0%
20	1.8%	1.8%	1.8%
25	2.0%	2.0%	2.0%
30	1.0%	1.0%	1.0%

Pension-Related Assumptions

Annual increases for members of JRS I, JRS II and LRS are assumed to be 2.75% for all years of service and ages.

Overall Payroll Growth

2.75% compounded annually for all members (used in projecting the payroll over which the unfunded liability is amortized). For the State Miscellaneous plan, the payroll of the Second Tier members is assumed to decrease in accordance with actuarial assumptions based on the assumption that all new entrants will elect the State Miscellaneous First Tier. The payroll of the First Tier members is assumed to grow at the rate necessary for the overall payroll of the State Miscellaneous plan to grow annually at a rate of 2.75%.

Inflation

2.50% compounded annually.

Pension-Related Assumptions

Demographic Assumptions:

Age of Spouse

It is assumed that female spouses are three years younger than male spouses.

Miscellaneous Assumptions:

Tier 2 Members Electing Tier 1 Benefits

Tier 2 members of both the State Miscellaneous and State Industrial plans have the right to convert their Tier 2 service to Tier 1 service provided that they make up the shortfall in their accumulated contributions with interest. In this actuarial valuation, we have assumed that all Tier 2 members will elect to convert their Tier 2 service to Tier 1 service.

Pension-Related Assumptions

PLAN SPECIFIC ACTUARIAL ASSUMPTIONS

STATE MISCELLANEOUS TIER 1 AND TIER 2

Service Retirement – Classic Members

Rates vary by age and service. See sample rates in table below.

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.007	0.010	0.014	0.019	0.019	0.022	0.029
52	0.013	0.012	0.013	0.018	0.020	0.023	0.031
54	0.011	0.017	0.020	0.030	0.035	0.039	0.049
56	0.023	0.035	0.043	0.062	0.083	0.106	0.165
58	0.027	0.043	0.047	0.074	0.089	0.121	0.170
60	0.037	0.062	0.075	0.119	0.141	0.175	0.246
62	0.087	0.127	0.152	0.221	0.263	0.310	0.356
65	0.090	0.158	0.175	0.245	0.249	0.301	0.344
70	0.140	0.176	0.184	0.223	0.276	0.299	0.299
75	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Service Retirement – PEPRA Members

Rates vary by age and service. See sample rates in table below.

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.000	0.000	0.000	0.000	0.000	0.000	0.000
52	0.009	0.008	0.009	0.013	0.014	0.016	0.022
54	0.008	0.012	0.014	0.021	0.025	0.027	0.034
56	0.016	0.025	0.030	0.043	0.058	0.074	0.116
58	0.020	0.032	0.035	0.056	0.067	0.091	0.128
60	0.030	0.050	0.060	0.095	0.113	0.140	0.197
62	0.070	0.102	0.122	0.177	0.210	0.248	0.285
65	0.081	0.142	0.158	0.221	0.224	0.271	0.310
70	0.140	0.176	0.184	0.223	0.276	0.299	0.299
75	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Pension-Related Assumptions

STATE MISCELLANEOUS TIER 1 AND TIER 2 (CONTINUED)

Termination with Refund

Rates vary by entry age and service. See sample rates in table below.

Duration of Service	Entry Age				
	20	25	30	35	40
0	0.1657	0.1657	0.1512	0.1366	0.1292
1	0.1366	0.1366	0.1216	0.1066	0.0965
2	0.1106	0.1106	0.0965	0.0825	0.0719
3	0.0877	0.0877	0.0760	0.0643	0.0554
4	0.0679	0.0679	0.0600	0.0520	0.0468
5	0.0272	0.0272	0.0223	0.0174	0.0160
10	0.0048	0.0048	0.0043	0.0037	0.0027
15	0.0016	0.0016	0.0012	0.0008	0.0007
20	0.0011	0.0011	0.0008	0.0005	0.0005
25	0.0008	0.0008	0.0006	0.0004	0.0003
30	0.0006	0.0006	0.0004	0.0002	0.0002

Terminations with Vested Deferred Benefits

Rates vary by entry age and service. See sample rates in table below.

Duration of Service	Entry Age				
	20	25	30	35	40
5	0.0441	0.0441	0.0394	0.0346	0.0289
6	0.0397	0.0397	0.0357	0.0318	0.0261
7	0.0355	0.0355	0.0322	0.0289	0.0233
8	0.0317	0.0317	0.0288	0.0260	0.0206
9	0.0282	0.0282	0.0257	0.0232	0.0180
10	0.0251	0.0251	0.0227	0.0204	0.0156
14	0.0161	0.0161	0.0137	0.0113	0.0085
15	0.0146	0.0146	0.0122	0.0097	0.0074
19	0.0104	0.0104	0.0079	0.0054	0.0043
20	0.0095	0.0095	0.0071	0.0047	0.0038
24	0.0058	0.0058	0.0037	0.0017	0.0013
25	0.0050	0.0050	0.0029	0.0008	0.0007
29	0.0029	0.0029	0.0015	-	-
30	0.0026	0.0026	0.0013	-	-

Pension-Related Assumptions

STATE MISCELLANEOUS TIER 1 AND TIER 2 (CONTINUED)

Non-Industrial Death and Disability

Rates vary by age and gender. See sample rates in table below.

Attained Age	Male		Female	
	Non-Industrial Death	Non-Industrial Disability	Non-Industrial Death	Non-Industrial Disability
20	0.00022	0.00019	0.00007	0.00039
25	0.00029	0.00019	0.00011	0.00039
30	0.00038	0.00019	0.00016	0.00046
35	0.00049	0.00036	0.00027	0.00096
40	0.00064	0.00103	0.00037	0.00186
45	0.00080	0.00204	0.00054	0.00326
50	0.00116	0.00274	0.00079	0.00405
55	0.00172	0.00238	0.00120	0.00310
60	0.00255	0.00200	0.00166	0.00256

Postretirement Mortality

Rates vary by age and gender for healthy benefit recipients, for non-industrially disabled (disability not job-related) retirees and for retirees who are industrially disabled (disability is job-related). See sample rates in table below.

Age	Healthy Recipients		Non-Industrially Disabled (Not Job-Related)		Industrially Disabled (Job-Related)	
	Male	Female	Male	Female	Male	Female
50	0.00372	0.00346	0.01183	0.01083	0.00372	0.00346
55	0.00437	0.00410	0.01613	0.01178	0.00437	0.00410
60	0.00671	0.00476	0.02166	0.01404	0.00671	0.00476
65	0.00928	0.00637	0.02733	0.01757	0.01113	0.00765
70	0.01339	0.00926	0.03358	0.02183	0.01607	0.01111
75	0.02316	0.01635	0.04277	0.02969	0.02779	0.01962
80	0.03977	0.03007	0.06272	0.04641	0.04773	0.03609
85	0.07122	0.05418	0.09793	0.07847	0.08547	0.06501
90	0.13044	0.10089	0.14616	0.13220	0.14348	0.11098
95	0.21658	0.17698	0.21658	0.21015	0.21658	0.17698
100	0.32222	0.28151	0.32222	0.32226	0.32222	0.28151
105	0.46691	0.43491	0.46691	0.43491	0.46691	0.43491
110	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000

The postretirement mortality rates above include 15 years of projected ongoing mortality improvement using 90 percent scale MP-2016 published by the Society of Actuaries.

Pension-Related Assumptions

STATE INDUSTRIAL TIER 1 AND TIER 2 (CONTINUED)

Service Retirement – Classic Members

Rates vary by age and service. See sample rates in table below.

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.006	0.008	0.013	0.019	0.026	0.029	0.036
52	0.007	0.009	0.015	0.023	0.031	0.034	0.043
54	0.014	0.020	0.030	0.046	0.062	0.069	0.086
56	0.028	0.040	0.062	0.094	0.126	0.140	0.174
58	0.029	0.041	0.064	0.098	0.131	0.145	0.181
60	0.042	0.060	0.093	0.142	0.191	0.211	0.262
62	0.079	0.113	0.176	0.266	0.357	0.398	0.493
65	0.081	0.117	0.182	0.276	0.371	0.413	0.511
70	0.097	0.139	0.217	0.329	0.443	0.493	0.611
75	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Service Retirement – PEPRA Members

Rates vary by age and service. See sample rates in table below.

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.000	0.000	0.000	0.000	0.000	0.000	0.000
52	0.005	0.006	0.011	0.016	0.022	0.024	0.030
54	0.010	0.014	0.021	0.032	0.043	0.048	0.060
56	0.020	0.028	0.043	0.066	0.088	0.098	0.122
58	0.022	0.031	0.048	0.074	0.098	0.109	0.136
60	0.034	0.048	0.074	0.114	0.153	0.169	0.210
62	0.063	0.090	0.141	0.213	0.286	0.318	0.394
65	0.073	0.105	0.164	0.248	0.334	0.372	0.460
70	0.097	0.139	0.217	0.329	0.443	0.493	0.611
75	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Pension-Related Assumptions

STATE INDUSTRIAL TIER 1 AND TIER 2 (CONTINUED)

Termination with Refund

Rates vary by service. See sample rates in table below.

Service									
<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>35</u>	<u>40</u>	<u>45</u>
0.0912	0.0190	0.0029	0.0016	0.0010	0.0006	0.0004	0.0002	0.0001	0.0001

Terminations with Vested Deferred Benefits

Rates vary by entry age and service. See sample rates in table below.

Duration of Service	Entry Age				
	<u>20</u>	<u>25</u>	<u>30</u>	<u>35</u>	<u>40</u>
5	0.0496	0.0449	0.0405	0.0356	0.0311
6	0.0470	0.0421	0.0377	0.0328	0.0281
7	0.0442	0.0393	0.0346	0.0297	0.0250
8	0.0414	0.0365	0.0316	0.0267	0.0220
9	0.0384	0.0335	0.0285	0.0234	0.0187
10	0.0353	0.0302	0.0253	0.0201	-
14	0.0311	0.0257	0.0206	0.0152	-
15	0.0302	0.0246	0.0194	-	-
19	0.0248	0.0190	0.0136	-	-
20	0.0232	0.0176	-	-	-
24	0.0173	0.0115	-	-	-
25	0.0159	-	-	-	-
29	0.0091	-	-	-	-
30	-	-	-	-	-

Pension-Related Assumptions

STATE INDUSTRIAL TIER 1 AND TIER 2 (CONTINUED)

Non-Industrial Death, Non-Industrial Disability, Industrial Disability & Industrial Death

Non-Industrial Death rates vary by age and gender. Non-Industrial Disability, Industrial Disability and Industrial Death rates vary by age. See sample rates in table below.

Attained Age	Non-Industrial Death		Non-Industrial Disability	Industrial Disability	Industrial Death
	Male	Female	Male and Female	Male and Female	Male and Female
20	0.00022	0.00007	0.00043	0.00015	0.00004
25	0.00029	0.00011	0.00043	0.00015	0.00006
30	0.00038	0.00016	0.00106	0.00015	0.00007
35	0.00049	0.00027	0.00184	0.00029	0.00009
40	0.00064	0.00037	0.00295	0.00029	0.00010
45	0.00080	0.00054	0.00448	0.00044	0.00012
50	0.00116	0.00079	0.00601	0.00044	0.00013
55	0.00172	0.00120	0.00771	0.00058	0.00015
60	0.00255	0.00166	0.00771	0.00058	0.00016

Postretirement Mortality

Rates vary by age and gender for healthy benefit recipients, for non-industrially disabled (disability not job-related) retirees and for retirees who are industrially disabled (disability is job-related). See sample rates in table below.

Age	Healthy Recipients		Non-Industrially Disabled (Not Job-Related)		Industrially Disabled (Job-Related)	
	Male	Female	Male	Female	Male	Female
50	0.00372	0.00346	0.01183	0.01083	0.00372	0.00346
55	0.00437	0.00410	0.01613	0.01178	0.00437	0.00410
60	0.00671	0.00476	0.02166	0.01404	0.00671	0.00476
65	0.00928	0.00637	0.02733	0.01757	0.01113	0.00765
70	0.01339	0.00926	0.03358	0.02184	0.01607	0.01112
75	0.02316	0.01635	0.04277	0.02969	0.02779	0.01962
80	0.03977	0.03007	0.06272	0.04641	0.04773	0.03609
85	0.07122	0.05418	0.09793	0.07847	0.08547	0.06501
90	0.13044	0.10089	0.14616	0.13220	0.14348	0.11098
95	0.21658	0.17698	0.21658	0.21015	0.21658	0.17698
100	0.32222	0.28151	0.32222	0.32226	0.32222	0.28151
105	0.46691	0.43491	0.46691	0.43491	0.46691	0.43491
110	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000

The postretirement mortality rates above include 15 years of projected ongoing mortality improvement using 90 percent scale MP-2016 published by the Society of Actuaries.

Pension-Related Assumptions

STATE SAFETY

Service Retirement – Classic Members

Rates vary by age and service. See sample rates in table below.

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.008	0.013	0.020	0.030	0.032	0.039	0.045
52	0.008	0.017	0.017	0.030	0.030	0.035	0.044
54	0.016	0.023	0.023	0.034	0.041	0.054	0.099
56	0.032	0.039	0.058	0.109	0.138	0.171	0.231
58	0.035	0.047	0.069	0.109	0.132	0.179	0.256
60	0.048	0.056	0.090	0.154	0.158	0.201	0.257
62	0.084	0.095	0.140	0.239	0.253	0.308	0.356
65	0.111	0.138	0.172	0.249	0.257	0.311	0.359
70	0.137	0.167	0.214	0.281	0.309	0.373	0.401
75	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Service Retirement – PEPRA Members

Rates vary by age and service. See sample rates in table below.

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.007	0.011	0.017	0.026	0.027	0.033	0.038
52	0.007	0.014	0.014	0.026	0.026	0.030	0.037
54	0.012	0.017	0.017	0.026	0.031	0.041	0.074
56	0.024	0.029	0.044	0.082	0.104	0.128	0.173
58	0.028	0.038	0.055	0.087	0.106	0.143	0.205
60	0.043	0.050	0.081	0.139	0.142	0.181	0.231
62	0.067	0.076	0.112	0.191	0.202	0.246	0.285
65	0.100	0.124	0.155	0.224	0.231	0.280	0.323
70	0.137	0.167	0.214	0.281	0.309	0.373	0.401
75	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Termination with Refund

Rates vary by service. See sample rates in table below.

Service										
0	1	2	3	4	5	10	15	20	25	30
0.1408	0.1014	0.0723	0.0533	0.0444	0.0155	0.0033	0.0019	0.0011	0.0006	0.0004

Pension-Related Assumptions

STATE SAFETY (CONTINUED)

Terminations with Vested Deferred Benefits

Rates vary by service. See sample rates in table below.

Service										
<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>35</u>
0.0246	0.0218	0.0194	0.0173	0.0155	0.0141	0.0097	0.0073	0.0050	0.0034	0.0000

Non-Industrial Death, Non-Industrial Disability, Industrial Disability & Industrial Death

Non-Industrial Death rates vary by age and gender. Non-Industrial Disability, Industrial Disability and Industrial Death rates vary by age. See sample rates in table below.

Attained Age	Non-Industrial Death		Non-Industrial Disability	Industrial Disability	Industrial Death
			Male and Female	Male and Female	Male and Female
	Male	Female	Male and Female	Male and Female	Male and Female
20	0.00022	0.00007	0.00036	0.00002	0.00004
25	0.00029	0.00011	0.00054	0.00076	0.00006
30	0.00038	0.00016	0.00063	0.00170	0.00007
35	0.00049	0.00027	0.00072	0.00264	0.00009
40	0.00064	0.00037	0.00072	0.00360	0.00010
45	0.00080	0.00054	0.00108	0.00457	0.00012
50	0.00116	0.00079	0.00201	0.00557	0.00013
55	0.00172	0.00120	0.00240	0.00658	0.00015
60	0.00255	0.00166	0.00320	0.00762	0.00016

Pension-Related Assumptions

STATE SAFETY (CONTINUED)

Postretirement Mortality

Rates vary by age and gender for healthy benefit recipients and for non-industrially disabled (disability not job-related) retirees. Rates vary by age for retirees who are industrially disabled (disability is job-related). See sample rates in table below.

Age	Healthy Recipients		Non-Industrially Disabled (Not Job-Related)		Industrially Disabled (Job-Related)	
	Male	Female	Male	Female	Male	Female
50	0.00372	0.00346	0.01183	0.01083	0.00372	0.00346
55	0.00437	0.00410	0.01613	0.01178	0.00437	0.00410
60	0.00671	0.00476	0.02166	0.01404	0.00671	0.00476
65	0.00928	0.00637	0.02733	0.01757	0.01113	0.00765
70	0.01339	0.00926	0.03358	0.02184	0.01607	0.01112
75	0.02316	0.01635	0.04277	0.02969	0.02779	0.01962
80	0.03977	0.03007	0.06272	0.04641	0.04773	0.03609
85	0.07122	0.05418	0.09793	0.07847	0.08547	0.06501
90	0.13044	0.10089	0.14616	0.13220	0.14348	0.11098
95	0.21658	0.17698	0.21658	0.21015	0.21658	0.17698
100	0.32222	0.28151	0.32222	0.32226	0.32222	0.28151
105	0.46691	0.43491	0.46691	0.43491	0.46691	0.43491
110	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000

The postretirement mortality rates above include 15 years of projected ongoing mortality improvement using 90 percent scale MP-2016 published by the Society of Actuaries.

Pension-Related Assumptions

STATE PEACE OFFICERS AND FIREFIGHTERS

Service Retirement – Classic Members

Rates vary by age and service. See sample rates in table below.

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.012	0.030	0.044	0.109	0.224	0.449	0.467
52	0.012	0.026	0.041	0.096	0.145	0.255	0.257
54	0.021	0.042	0.053	0.118	0.162	0.292	0.306
56	0.031	0.044	0.057	0.135	0.213	0.335	0.345
58	0.020	0.065	0.070	0.158	0.224	0.354	0.354
60	0.035	0.066	0.094	0.179	0.276	0.360	0.367
62	0.067	0.104	0.130	0.221	0.324	0.415	0.440
65	0.065	0.081	0.127	0.231	0.342	0.427	0.453
70	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Service Retirement – PEPRA Members

Rates vary by age and service. See sample rates in table below.

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.008	0.021	0.031	0.076	0.157	0.314	0.327
52	0.008	0.018	0.029	0.067	0.102	0.179	0.180
54	0.016	0.032	0.040	0.089	0.122	0.219	0.230
56	0.025	0.035	0.046	0.108	0.170	0.268	0.276
58	0.018	0.059	0.063	0.142	0.202	0.319	0.319
60	0.033	0.063	0.089	0.170	0.262	0.342	0.349
62	0.067	0.104	0.130	0.221	0.324	0.415	0.440
65	0.065	0.081	0.127	0.231	0.342	0.427	0.453
70	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Termination with Refund

Rates vary by service. See sample rates in table below.

Service										
0	1	2	3	4	5	10	15	20	25	30
0.1217	0.0779	0.0431	0.0353	0.0275	0.0056	0.0039	0.0025	0.0015	0.0006	0.0003

Pension-Related Assumptions

STATE PEACE OFFICERS AND FIREFIGHTERS (CONTINUED)

Terminations with Vested Deferred Benefits

Rates vary by service. See sample rates in table below.

Service										
<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>35</u>
0.0117	0.0115	0.0112	0.0108	0.0103	0.0098	0.0069	0.0049	0.0031	0.0020	0.0000

Non-Industrial Death, Non-Industrial Disability, Industrial Disability & Industrial Death

Non-Industrial Death rates vary by age and gender. Non-Industrial Disability, Industrial Disability and Industrial Death rates vary by age. See sample rates in table below.

Attained Age	Non-Industrial Death		Non-Industrial Disability	Industrial Disability	Industrial Death
			Male and Female	Male and Female	Male and Female
	Male	Female	Male and Female	Male and Female	Male and Female
20	0.00022	0.00007	0.00030	0.00039	0.00004
25	0.00029	0.00011	0.00030	0.00087	0.00006
30	0.00038	0.00016	0.00030	0.00167	0.00007
35	0.00049	0.00027	0.00030	0.00289	0.00009
40	0.00064	0.00037	0.00040	0.00464	0.00010
45	0.00080	0.00054	0.00060	0.00706	0.00012
50	0.00116	0.00079	0.00098	0.01027	0.00013
55	0.00172	0.00120	0.00143	0.01442	0.00015
60	0.00255	0.00166	0.00188	0.01966	0.00016

Pension-Related Assumptions

STATE PEACE OFFICERS AND FIREFIGHTERS (CONTINUED)

Postretirement Mortality

Rates vary by age and gender for healthy benefit recipients, for non-industrially disabled (disability not job-related) retirees and for retirees who are industrially disabled (disability is job-related). See sample rates in table below.

Age	Healthy Recipients		Non-Industrially Disabled (Not Job-Related)		Industrially Disabled (Job-Related)	
	Male	Female	Male	Female	Male	Female
50	0.00372	0.00346	0.01183	0.01083	0.00372	0.00346
55	0.00437	0.00410	0.01613	0.01178	0.00437	0.00410
60	0.00671	0.00476	0.02166	0.01404	0.00671	0.00476
65	0.00928	0.00637	0.02733	0.01757	0.01113	0.00765
70	0.01339	0.00926	0.03358	0.02184	0.01607	0.01112
75	0.02316	0.01635	0.04277	0.02969	0.02779	0.01962
80	0.03977	0.03007	0.06272	0.04641	0.04773	0.03609
85	0.07122	0.05418	0.09793	0.07847	0.08547	0.06501
90	0.13044	0.10089	0.14616	0.13220	0.14348	0.11098
95	0.21658	0.17698	0.21658	0.21015	0.21658	0.17698
100	0.32222	0.28151	0.32222	0.32226	0.32222	0.28151
105	0.46691	0.43491	0.46691	0.43491	0.46691	0.43491
110	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000

The postretirement mortality rates above include 15 years of projected ongoing mortality improvement using 90 percent scale MP-2016 published by the Society of Actuaries.

Pension-Related Assumptions

CALIFORNIA HIGHWAY PATROL

Service Retirement – Classic Members

Rates vary by age and service. See sample rates in table below.

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.038	0.038	0.038	0.049	0.107	0.418	0.453
52	0.027	0.027	0.027	0.027	0.093	0.315	0.383
54	0.038	0.038	0.038	0.038	0.124	0.309	0.404
56	0.051	0.051	0.051	0.084	0.139	0.350	0.380
58	0.049	0.049	0.049	0.049	0.171	0.338	0.350
60	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Service Retirement – PEPRA Members

Rates vary by age and service. See sample rates in table below.

Attained Age	Years of Service						
	5	10	15	20	25	30	35
50	0.027	0.027	0.027	0.034	0.075	0.293	0.317
52	0.020	0.020	0.020	0.020	0.070	0.236	0.287
54	0.030	0.030	0.030	0.030	0.099	0.247	0.323
56	0.043	0.043	0.043	0.071	0.118	0.298	0.323
58	0.044	0.044	0.044	0.044	0.154	0.304	0.315
60	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Termination with Refund

Rates vary by service. See sample rates in table below.

Service										
<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>
0.1050	0.0243	0.0152	0.0091	0.0054	0.0029	0.0005	0.0003	0.0002	0.0002	0.0002

Pension-Related Assumptions

CALIFORNIA HIGHWAY PATROL (CONTINUED)

Terminations with Vested Deferred Benefits

Rates vary by service. See sample rates in table below.

Service										
<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>35</u>
0.0090	0.0084	0.0079	0.0075	0.0071	0.0067	0.0049	0.0034	0.0023	0.0010	0.0000

When a member is eligible to retire, the termination with vested benefits probability is set to zero.

Non-Industrial Death and Disability & Industrial Death and Disability

Non-Industrial Death rates vary by age and gender. Non-Industrial Disability, Industrial Disability and Industrial Death rates vary by age. See sample rates in table below.

Attained Age	Non-Industrial Death		Non-Industrial Disability	Industrial Disability	Industrial Death
			Male and Female	Male and Female	Male and Female
	Male	Female	Male and Female	Male and Female	Male and Female
20	0.00022	0.00007	0.00010	0.00016	0.00004
25	0.00029	0.00011	0.00010	0.00035	0.00006
30	0.00038	0.00016	0.00010	0.00068	0.00007
35	0.00049	0.00027	0.00010	0.00122	0.00009
40	0.00064	0.00037	0.00010	0.00202	0.00010
45	0.00080	0.00054	0.00020	0.00316	0.00012
50	0.00116	0.00079	0.00020	0.01214	0.00013
55	0.00172	0.00120	0.00020	0.05407	0.00015
60	0.00255	0.00166	0.00020	0.20431	0.00016

Pension-Related Assumptions

CALIFORNIA HIGHWAY PATROL (CONTINUED)

Postretirement Mortality

Rates vary by age and gender for healthy benefit recipients, for non-industrially disabled (disability not job-related) retirees and for retirees who are industrially disabled (disability is job-related). See sample rates in table below.

Age	Healthy Recipients		Non-Industrially Disabled (Not Job-Related)		Industrially Disabled (Job-Related)	
	Male	Female	Male	Female	Male	Female
50	0.00372	0.00346	0.01183	0.01083	0.00372	0.00346
55	0.00437	0.00410	0.01613	0.01178	0.00437	0.00410
60	0.00671	0.00476	0.02166	0.01404	0.00671	0.00476
65	0.00928	0.00637	0.02733	0.01757	0.01113	0.00765
70	0.01339	0.00926	0.03358	0.02184	0.01607	0.01112
75	0.02316	0.01635	0.04277	0.02969	0.02779	0.01962
80	0.03977	0.03007	0.06272	0.04641	0.04773	0.03609
85	0.07122	0.05418	0.09793	0.07847	0.08547	0.06501
90	0.13044	0.10089	0.14616	0.13220	0.14348	0.11098
95	0.21658	0.17698	0.21658	0.21015	0.21658	0.17698
100	0.32222	0.28151	0.32222	0.32226	0.32222	0.28151
105	0.46691	0.43491	0.46691	0.43491	0.46691	0.43491
110	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000

The postretirement mortality rates above include 15 years of projected ongoing mortality improvement using 90 percent scale MP-2016 published by the Society of Actuaries.

Pension-Related Assumptions

JUDGES' RETIREMENT SYSTEM I

Probability of Termination from Active Service

No pre-retirement termination or disability rates were assumed.

Service Retirement

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
60	0.20	68	0.20
61	0.20	69	0.30
62	0.20	70	0.10
63	0.20	71	0.10
64	0.20	72-79	0.20
65	0.20	80-84	0.30
66	0.20	85-89	0.50
67	0.20	>89	1.00

Mortality

The mortality assumptions are based on mortality rates resulting from the most recent CalPERS Experience Study adopted by the CalPERS Board. For purposes of the mortality rates, the revised rates include 15 years of projected ongoing mortality improvement using 90 percent of Scale MP 2016 published by the Society of Actuaries.

Pension-Related Assumptions

JUDGES' RETIREMENT SYSTEM II

Service Retirement

Rates vary by age and service.

Service Greater than 20 Years

<u>Age</u>	<u>Rate</u>
Below 65	0.0000
65	0.7500
66	0.4000
67	0.3000
68	0.3500
69	0.5000
70*	1.0000

* For Judges age 70 and older with 5 or more years of service the probability of retirement is 100 percent.

Withdrawal

Rates vary by age and service.

<u>Entry Age</u>	<u>0-1</u>	<u>1-2</u>	<u>2-3</u>	<u>3-4</u>	<u>4-5</u>	<u>5 or more</u>
35	0.0053	0.0053	0.0053	0.0053	0.0053	0.0023
40	0.0045	0.0045	0.0045	0.0045	0.0045	0.0038
45	0.0038	0.0038	0.0038	0.0038	0.0038	0.0075
50	0.0038	0.0038	0.0038	0.0038	0.0038	0.0090
55	0.0000	0.0000	0.0000	0.0000	0.0000	0.0083
60	0.0000	0.0000	0.0000	0.0000	0.0000	0.0075

Pre-Retirement Non-Industrial Mortality

Rates vary by age.

Pension-Related Assumptions

JUDGES' RETIREMENT SYSTEM II (CONTINUED)

Non-Industrial Disability and Pre-Retirement Mortality

Rates vary by age.

Attained	Pre-Retirement Mortality	Pre-Retirement Mortality	Non-Industrial
Age	Male	Female	Disability
35	0.0005	0.0003	0.0000
40	0.0006	0.0004	0.0010
45	0.0008	0.0005	0.0019
50	0.0012	0.0008	0.0032
55	0.0017	0.0012	0.0054
60	0.0026	0.0017	0.0085
65	0.0036	0.0023	0.0122
70	0.0062	0.0039	0.0000

Industrial Mortality

Rates are zero.

Industrial Disability

Rates are zero.

Post-Retirement Mortality:

Rates vary by age and sex.

		Non-Industrial Disability	Non-Industrial Disability			Non-Industrial Disability	Non-Industrial Disability
Age	Healthy Male	Healthy Female	Healthy Male	Healthy Female	Age	Healthy Male	Healthy Female
35	0.0005	0.0003	0.0005	0.0003	75	0.0232	0.0164
40	0.0006	0.0004	0.0006	0.0004	80	0.0398	0.0301
45	0.0008	0.0005	0.0008	0.0005	85	0.0712	0.0542
50	0.0037	0.0035	0.0118	0.0108	90	0.1304	0.1009
55	0.0044	0.0041	0.0161	0.0112	95	0.2166	0.1770
60	0.0067	0.0048	0.0217	0.0140	100	0.3222	0.2815
65	0.0093	0.0064	0.0273	0.0176	105	0.4669	0.4349
70	0.0134	0.0093	0.0336	0.0218	110	1.0000	1.0000

The postretirement mortality rates above include 15 years of projected ongoing mortality improvement using 90 percent scale MP-2016 published by the Society of Actuaries.

Pension-Related Assumptions

Legislators' Retirement System

Probabilities of Decrement for Active Participants

Vested Withdrawal – Sample vested withdrawal rates are shown in the following table.

Disability – Sample disability rates are shown in the following table.

Non-vested Withdrawal – Sample rates for non-vested withdrawal are shown in the following table.

For each 1,000 active participants at the age shown, the following number will leave within a year on account of:

<u>Age</u>	<u>Vested Withdrawal</u>	<u>Disability</u>	<u>Non-Vested Withdrawal</u>
30	50.0	0.1	25.0
35	50.0	0.2	25.0
40	50.0	0.7	20.0
41	50.0	0.8	15.0
42	40.0	0.9	15.0
43	40.0	1.0	15.0
44	40.0	1.1	15.0
45	40.0	1.2	15.0
46	40.0	1.3	15.0
47	40.0	1.5	15.0
48	40.0	1.7	15.0
49	40.0	1.9	15.0
50	40.0	2.2	10.0
51	40.0	2.5	5.0
52	40.0	3.0	0.0
53	40.0	3.6	0.0
54	40.0	4.3	0.0
55	40.0	5.0	0.0
56	40.0	5.8	0.0
57	40.0	6.7	0.0
58	40.0	7.5	0.0
59	40.0	8.4	0.0
60	40.0	9.5	0.0

Pension-Related Assumptions

Legislators' Retirement System (CONTINUED)

Pre-Retirement Non-Industrial Mortality

Rates vary by age and sex.

Mortality Rates after Leaving Active Participation

The mortality assumptions are based on mortality rates resulting from the most recent CalPERS Experience Study adopted by the CalPERS Board. For purposes of the postretirement mortality rates, the revised rates include 20 years of projected ongoing mortality improvement using Scale BB published by the Society of Actuaries.

	Healthy	Healthy	Disability	Disability		Healthy	Healthy	Disability	Disability
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
35	0.0005	0.0003	0.0005	0.0003	75	0.0232	0.0164	0.0428	0.0297
40	0.0006	0.0004	0.0006	0.0004	80	0.0398	0.0301	0.0627	0.0464
45	0.0008	0.0005	0.0008	0.0005	85	0.0712	0.0542	0.0979	0.0785
50	0.0037	0.0035	0.0118	0.0108	90	0.1304	0.1009	0.1462	0.1322
55	0.0044	0.0041	0.0161	0.0112	95	0.2166	0.1770	0.2166	0.2102
60	0.0067	0.0048	0.0217	0.0140	100	0.3222	0.2815	0.3222	0.3223
65	0.0093	0.0064	0.0273	0.0176	105	0.4669	0.4349	0.4669	0.4349
70	0.0134	0.0093	0.0336	0.0218	110	1.0000	1.0000	1.0000	1.0000

The postretirement mortality rates above include 15 years of projected ongoing mortality improvement using 90 percent scale MP-2016 published by the Society of Actuaries.

APPENDIX A

GLOSSARY

Glossary

Accrued Service	Service credited under the system that was rendered before the date of the actuarial valuation.
Actuarial Accrued Liability (AAL)	The AAL is the difference between the actuarial present value of all benefits and the actuarial value of future normal costs. The definition comes from the fundamental equation of funding which states that the present value of all benefits is the sum of the Actuarial Accrued Liability and the present value of future normal costs. The AAL may also be referred to as "accrued liability" or "actuarial liability."
Actuarial Assumptions	These assumptions are estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and compensation increases. Actuarial assumptions are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (compensation increases, payroll growth, inflation and investment return) consist of an underlying real rate of return plus an assumption for a long-term average rate of inflation.
Actuarial Cost Method	A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of the OPEB trust benefits between future normal cost and actuarial accrued liability. The actuarial cost method may also be referred to as the actuarial funding method.
Actuarial Equivalent	A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.
Actuarial Gain (Loss)	The difference in liabilities between actual experience and expected experience during the period between two actuarial valuations is the gain (loss) on the accrued liabilities.
Actuarial Present Value (APV)	The amount of funds currently required to provide a payment or series of payments in the future. The present value is determined by discounting future payments at predetermined rates of interest and probabilities of payment.
Actuarial Valuation	The actuarial valuation report determines, as of the actuarial valuation date, the service cost, total OPEB liability, and related actuarial present value of projected benefit payments for OPEB.
Actuarial Valuation Date	The date as of which an actuarial valuation is performed.
Actuarially Determined Contribution (ADC)	A calculated contribution into an OPEB plan for the reporting period, most often determined based on the funding policy of the plan. Typically the Actuarially Determined Contribution has a normal cost payment and an amortization payment.
Amortization Method	The method used to determine the periodic amortization payment may be a level dollar amount, or a level percent of pay amount. The period will typically be expressed in years, and the method will either be "open" (meaning, reset each year) or "closed" (the number of years remaining will decline each year).

Glossary

Amortization Payment	The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.
Cost-of-Living Adjustments	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Cost-Sharing Multiple-Employer Defined Benefit OPEB Plan (cost-sharing OPEB plan)	A multiple-employer defined benefit OPEB plan in which the OPEB obligations to the employees of more than one employer are pooled and OPEB plan assets can be used to pay the benefits of the employees of any employer that provides benefits through the OPEB plan.
Covered-Employee Payroll	The payroll of employees that are provided with benefits through the OPEB plan.
Deferred Inflows and Outflows	The deferred inflows and outflows of OPEB resources are amounts used under GASB Statement No. 74 in developing the annual OPEB expense. Deferred inflows and outflows arise with differences between expected and actual experiences; changes of assumptions. The portion of these amounts not included in the OPEB expense should be included in the deferred inflows or outflows of resources.
Discount Rate	<p>For GASB purposes, the discount rate is the single rate of return that results in the present value of all projected benefit payments to be equal to the sum of the funded and unfunded projected benefit payments, specifically:</p> <ol style="list-style-type: none">1. The benefit payments to be made while the OPEB plans' fiduciary net position is projected to be greater than the benefit payments that are projected to be made in the period; and2. The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.
Entry Age Actuarial Cost Method (EAN)	The EAN is a cost method for allocating the costs of the plan between the normal cost and the accrued liability. The actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis (either level dollar or level percent of pay) over the earnings or service of the individual between entry age and assumed exit ages(s). The portion of the actuarial present value allocated to an actuarial valuation year is the normal cost. The portion of this actuarial present value not provided for at an actuarial valuation date by the actuarial present value of future normal costs is the actuarial accrued liability. The sum of the accrued liability plus the present value of all future normal costs is the present value of all benefits.
Fiduciary Net Position	The fiduciary net position is the market value of the assets of the trust dedicated to the defined benefit provisions.
GASB	The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.
Long-Term Expected Rate of Return	The long-term rate of return is the expected return to be earned over the entire trust portfolio based on the asset allocation of the portfolio.

Glossary

Money-Weighted Rate of Return	The money-weighted rate of return is a method of calculating the returns that adjusts for the changing amounts actually invested. For purposes of GASB Statement No. 74, the money-weighted rate of return is calculated as the internal rate of return on OPEB plan investments, net of OPEB plan investment expense.
Multiple-Employer Defined Benefit OPEB Plan	A multiple-employer plan is a defined benefit OPEB plan that is used to provide OPEB payments to the employees of more than one employer.
Municipal Bond Rate	The Municipal Bond Rate is the discount rate to be used for those benefit payments that occur after the assets of the trust have been depleted.
Net OPEB Liability (NOL)	The NOL is the liability of employers and non-employer contributing entities to plan members for benefits provided through a defined benefit OPEB plan.
Non-Employer Contributing Entities	Non-employer contributing entities are entities that make contributions to an OPEB plan that is used to provide OPEB payments to the employees of other entities. For purposes of the GASB accounting statements, plan members are not considered non-employer contributing entities.
Normal Cost	The portion of the actuarial present value allocated to an actuarial valuation year is called the normal cost. For purposes of application to the requirements of this Statement, the term normal cost is the equivalent of service cost.
Other Postemployment Benefits (OPEB)	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits regardless of the manner in which they are provided. Other postemployment benefits do not include termination benefits.
Real Rate of Return	The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.
Service Cost	The service cost is the portion of the actuarial present value of projected benefit payments that is attributed to an actuarial valuation year.

Glossary

Total OPEB Expense

The total OPEB expense is the sum of the following items that are recognized at the end of the employer's fiscal year:

1. Service Cost
2. Interest on the Total OPEB Liability
3. Current-Period Benefit Changes
4. Employee Contributions (made negative for addition here)
5. Projected Earnings on Plan Investments (made negative for addition here)
6. OPEB Plan Administrative Expense
7. Other Changes in Plan Fiduciary Net Position
8. Recognition of Outflow (Inflow) of Resources due to Liabilities
9. Recognition of Outflow (Inflow) of Resources due to Assets

Total OPEB Liability (TOL)

The TOL is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service.

Unfunded Actuarial Accrued Liability (UAAL)

The UAAL is the difference between actuarial accrued liability and actuarial valuation assets.

Actuarial Valuation Assets

The actuarial valuation assets are the assets used in determining the unfunded liability of the plan. For purposes of GASB Statement Nos. 74 and 75, the actuarial valuation assets are equal to the market value of assets.

APPENDIX B

INDIVIDUAL ACTUARIAL VALUATION RESULTS

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 BARGAINING UNIT NUMBER 1 PROFESSIONAL, ADMINISTRATIVE, FINANCIAL AND STAFF SERVICES		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	65,124	66,378
Retired Participants ^a	<u>37,122</u>	<u>38,558</u>
Total Participants	102,246	104,936
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 8,450,140	\$ 8,419,955
Retired Participants	<u>6,164,981</u>	<u>6,249,106</u>
Total Participants	\$ 14,615,121	\$ 14,669,061
Actuarial Accrued Liability		
Active Participants	\$ 5,931,951	\$ 5,749,060
Retired Participants	<u>6,164,981</u>	<u>6,249,106</u>
Total Participants	\$ 12,096,932	\$ 11,998,166
Actuarial Value of Assets	\$ -	\$ -
Unfunded Actuarial Accrued Liability	\$ 12,096,932	\$ 11,998,166
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 283,218	\$ 281,426
Administrative Expenses	1,080	1,107
Amortization of UAAL	<u>684,383</u>	<u>689,377</u>
Total ADC	\$ 968,681	\$ 971,910
Estimated Member Contributions	-	<u>(35,317)</u>
Net Employer ADC	\$ 968,681	\$ 936,593
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 303,921	\$ 303,317
Part B Reimbursement	47,374	58,609
Dental Claims	<u>23,359</u>	<u>23,854</u>
Total	\$ 374,654	\$ 385,780
Employer Implicit Costs	<u>57,343</u>	<u>57,086</u>
Total Employer Costs	\$ 431,997	\$ 442,866
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 9,186	\$ 16,566
Dental Claims	<u>7,328</u>	<u>7,495</u>
Total	\$ 16,514	\$ 24,061
Total Claims Costs	\$ 448,511	\$ 466,927

^aRetired participants with dental only coverage, 2,336 as of July 1, 2017, and 2,423 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING PROJECTIONS BASED ON JULY 1, 2018, ACTUARIAL VALUATION (\$ IN 000'S) BARGAINING UNIT NUMBER 1 PROFESSIONAL, ADMINISTRATIVE, FINANCIAL AND STAFF SERVICES									
Fiscal Year Beginning		7/1/2018							
Long-term Asset Return		7.000%							
Discount Rate		7.000%							
Year Plan is Fully Funded		2050							
FYE	Assets (boy)	Disbursements/ Benefits	Administrative Expenses	Pre-Fund Contribution	Investment Income	Assets (eoy)	Accrued Liability (eoy)	Funded Ratio	Normal Cost
2018	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,998,166	0.0%	\$ 281,426
2019	-	-	1,107	70,633	2,392	71,918	12,680,802	0.6%	273,677
2020	71,918	-	1,206	137,441	9,722	217,875	13,361,892	1.6%	266,069
2021	217,875	-	1,341	200,558	22,106	439,198	14,026,684	3.1%	258,257
2022	439,198	-	1,480	259,737	39,630	737,085	14,672,276	5.0%	250,262
2023	737,085	-	1,621	251,883	60,207	1,047,554	15,296,156	6.8%	242,113
2024	1,047,554	-	1,764	243,876	81,659	1,371,325	15,895,860	8.6%	233,763
2025	1,371,325	-	1,903	235,666	104,036	1,709,124	16,471,032	10.4%	225,259
2026	1,709,124	-	2,037	227,296	127,390	2,061,773	17,022,010	12.1%	216,603
2027	2,061,773	-	2,163	218,766	151,777	2,430,153	17,550,034	13.8%	207,849
2028	2,430,153	-	2,288	210,136	177,262	2,815,263	18,054,020	15.6%	199,134
2029	2,815,263	-	2,414	201,548	203,920	3,218,317	18,531,610	17.4%	190,473
2030	3,218,317	-	2,540	193,013	231,836	3,640,626	18,981,253	19.2%	181,780
2031	3,640,626	-	2,667	184,447	261,099	4,083,505	19,400,658	21.0%	173,041
2032	4,083,505	-	2,794	175,835	291,800	4,548,346	19,787,461	23.0%	164,258
2033	4,548,346	-	2,921	167,179	324,036	5,036,640	20,139,373	25.0%	155,400
2034	5,036,640	-	3,049	158,449	357,912	5,549,952	20,453,510	27.1%	146,506
2035	5,549,952	-	3,175	149,681	393,538	6,089,996	20,728,097	29.4%	137,594
2036	6,089,996	-	3,299	140,893	431,034	6,658,624	20,961,177	31.8%	128,662
2037	6,658,624	-	3,423	132,085	470,531	7,257,817	21,149,594	34.3%	119,736
2038	7,257,817	-	3,547	123,282	512,167	7,889,719	21,290,301	37.1%	110,868
2039	7,889,719	-	3,668	114,536	556,095	8,556,682	21,381,314	40.0%	102,045
2040	8,556,682	-	3,786	105,831	602,479	9,261,206	21,420,478	43.2%	93,233
2041	9,261,206	-	3,899	97,132	651,493	10,005,932	21,406,045	46.7%	84,448
2042	10,005,932	-	4,007	88,455	703,321	10,793,701	21,336,505	50.6%	75,708
2043	10,793,701	-	4,109	79,818	758,164	11,627,574	21,210,488	54.8%	67,089
2044	11,627,574	-	4,202	71,291	816,239	12,510,902	21,028,025	59.5%	58,723
2045	12,510,902	-	4,282	63,005	877,784	13,447,409	20,790,790	64.7%	50,713
2046	13,447,409	-	4,348	55,061	943,064	14,441,186	20,501,067	70.4%	43,135
2047	14,441,186	-	4,399	47,534	1,012,367	15,496,688	20,161,952	76.9%	36,102
2048	15,496,688	-	4,435	40,536	1,086,011	16,618,800	19,776,863	84.0%	29,708
2049	16,618,800	-	4,453	34,161	1,164,339	17,812,847	19,350,289	92.1%	23,980
2050	17,812,847	85,512	4,454	28,433	1,244,782	18,996,096	18,887,538	100.6%	18,934
2051	18,996,096	1,775,761	4,439	-	1,268,474	18,484,370	18,392,939	100.5%	14,604
2052	18,484,370	1,763,194	4,408	-	1,233,087	17,949,855	17,872,101	100.4%	10,984
2053	17,949,855	1,743,891	4,360	-	1,196,336	17,397,940	17,330,911	100.4%	8,048
2054	17,397,940	1,720,489	4,301	-	1,158,510	16,831,660	16,772,916	100.4%	5,761
2055	16,831,660	1,693,298	4,233	-	1,119,808	16,253,937	16,201,552	100.3%	4,053
2056	16,253,937	1,662,555	4,156	-	1,080,428	15,667,654	15,620,177	100.3%	2,818

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM							
DEVELOPMENT OF GASB NOS. 74 AND 75 SINGLE EQUIVALENT DISCOUNT RATE, (\$ IN 000'S)							
BARGAINING UNIT NUMBER 1							
PROFESSIONAL, ADMINISTRATIVE, FINANCIAL AND STAFF SERVICES							
20-Year GO Municipal Bond Rate at June 30, 2018		3.620%					
Long-Term Investment Return		7.000%					
Year Plan is Fully Funded		2050					
Single Equivalent Rate		3.991%					
Present Value of Benefits		\$ 26,423,794		\$ 26,423,794			
FYE	Net Employer Benefits	Cross-over Investment Return	Discount Factor	Discounted Benefit Payment	Single Equivalent Return	Discount Factor	Discounted Benefit Payment
2019	\$ 442,866	3.620%	0.98238	\$ 435,062	3.991%	0.98062	\$ 434,285
2020	482,538	3.620%	0.94806	457,474	3.991%	0.94299	455,027
2021	536,515	3.620%	0.91494	490,878	3.991%	0.90680	486,511
2022	591,974	3.620%	0.88297	522,697	3.991%	0.87200	516,199
2023	648,362	3.620%	0.85213	552,486	3.991%	0.83853	543,671
2024	705,525	3.620%	0.82236	580,193	3.991%	0.80635	568,899
2025	761,182	3.620%	0.79363	604,095	3.991%	0.77540	590,222
2026	814,692	3.620%	0.76590	623,974	3.991%	0.74564	607,470
2027	865,213	3.620%	0.73914	639,518	3.991%	0.71703	620,381
2028	915,127	3.620%	0.71332	652,781	3.991%	0.68951	630,987
2029	965,732	3.620%	0.68840	664,812	3.991%	0.66305	640,324
2030	1,016,103	3.620%	0.66435	675,051	3.991%	0.63760	647,866
2031	1,066,783	3.620%	0.64114	683,961	3.991%	0.61313	654,075
2032	1,117,628	3.620%	0.61874	691,526	3.991%	0.58960	658,951
2033	1,168,453	3.620%	0.59713	697,717	3.991%	0.56697	662,477
2034	1,219,622	3.620%	0.57627	702,829	3.991%	0.54521	664,950
2035	1,269,919	3.620%	0.55614	706,248	3.991%	0.52429	665,801
2036	1,319,410	3.620%	0.53671	708,137	3.991%	0.50416	665,199
2037	1,369,126	3.620%	0.51796	709,148	3.991%	0.48482	663,773
2038	1,418,772	3.620%	0.49986	709,190	3.991%	0.46621	661,444
2039	1,467,169	3.620%	0.48240	707,761	3.991%	0.44832	657,756
2040	1,514,333	3.620%	0.46555	704,992	3.991%	0.43111	652,845
2041	1,559,692	3.620%	0.44928	700,742	3.991%	0.41457	646,594
2042	1,602,916	3.620%	0.43359	695,003	3.991%	0.39865	639,010
2043	1,643,779	3.620%	0.41844	687,821	3.991%	0.38335	630,150
2044	1,680,913	3.620%	0.40382	678,788	3.991%	0.36864	619,656
2045	1,712,878	3.620%	0.38971	667,531	3.991%	0.35449	607,205
2046	1,739,295	3.620%	0.37610	654,146	3.991%	0.34089	592,907
2047	1,759,613	3.620%	0.36296	638,668	3.991%	0.32781	576,812
2048	1,773,852	3.620%	0.35028	621,343	3.991%	0.31523	559,164
2049	1,781,297	3.620%	0.33804	602,153	3.991%	0.30313	539,960
2050	1,781,493	3.620%	0.32623	581,181	3.991%	0.29149	519,295
2051	1,775,761	7.000%	0.30489	541,412	3.991%	0.28031	497,758
2052	1,763,194	7.000%	0.28494	502,411	3.991%	0.26955	475,267
2053	1,743,891	7.000%	0.26630	464,403	3.991%	0.25920	452,024
2054	1,720,489	7.000%	0.24888	428,197	3.991%	0.24926	428,843
2055	1,693,298	7.000%	0.23260	393,860	3.991%	0.23969	405,867
2065	1,343,196	7.000%	0.11824	158,822	3.991%	0.16207	217,686
2075	809,690	7.000%	0.06011	48,669	3.991%	0.10958	88,726
2085	240,524	7.000%	0.03056	7,349	3.991%	0.07409	17,821
2095	17,733	7.000%	0.01553	275	3.991%	0.05010	888
2105	150	7.000%	0.00790	1	3.991%	0.03387	5
2115	13	7.000%	0.00401	-	3.991%	0.02290	

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER BARGAINING UNIT NUMBER 1 PROFESSIONAL, ADMINISTRATIVE, FINANCIAL AND STAFF SERVICES		
Fiscal Year Ending	June 30, 2017	June 30, 2018
Total OPEB Liability		
Service Cost	\$ 805,786	\$ 696,561
Interest on Total OPEB Liability	709,285	795,499
Changes of Benefit Terms	-	-
Difference between Expected and Actual Experience	-	(1,542,979)
Changes of Assumptions	(2,147,553)	(754,890)
Benefit Payments	(412,642)	(440,390)
Net Change in Total OPEB Liability	\$ (1,045,124)	\$ (1,246,199)
Total OPEB Liability - Beginning	\$ 20,911,899	\$ 19,866,775
Total OPEB Liability - Ending (a)	\$ 19,866,775	\$ 18,620,576
Plan Fiduciary Net Position		
Employer PayGO Contributions	\$ 412,642	\$ 440,390
Employer Pre Funding Contributions	-	-
Active Member Contributions	-	-
Net Investment Income	-	-
Benefit Payments	(412,642)	(440,390)
Administrative Expense	-	-
Other	-	-
Net Change in Plan Fiduciary Net Position	\$ -	\$ -
Plan Fiduciary Net Position - Beginning	\$ -	\$ -
Plan Fiduciary Net Position - Ending (b)	\$ -	\$ -
Net OPEB Liability - Ending (a) - (b)	\$ 19,866,775	\$ 18,620,576
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	0.000%	0.000%
Actuarially Determined Contribution (ADC)	\$ 940,467	\$ 968,681
Employer Contribution	\$ 412,642	\$ 440,390
Percentage of ADC made by Employer	44%	45%
Contribution Excess/(Shortfall)	\$ (527,825)	\$ (528,291)
Expected Return on Assets	\$ -	\$ -
Investment (Gain)/Loss	\$ -	\$ -
Average Expected Remaining Service	7.062551	7.473794
Blended Discount Rate Beginning of Year	3.297%	3.910%
Blended Discount Rate End of Year	3.910%	3.991%
Long-term Expected Return on Assets	7.280%	7.000%

Individual Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) BARGAINING UNIT NUMBER 1 PROFESSIONAL, ADMINISTRATIVE, FINANCIAL AND STAFF SERVICES		
Measured for the Plan's Fiscal Year Ending	June 30, 2017	June 30, 2018
Applicable for the Sponsor's Fiscal Year Ending	June 30, 2018	June 30, 2019
OPEB Expense		
Service Cost	\$ 805,786	\$ 696,561
Interest on the Total OPEB Liability	709,285	795,499
Current-Period Benefit Changes	-	-
Active Member Contributions	-	-
Projected Earnings on Plan Investments	-	-
Operating Expenses	-	-
Other Changes in Plan Fiduciary Net Position	-	-
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(206,452)
Recognition of Outflow/(Inflow) due to Assumption Changes	(304,076)	(405,081)
Recognition of Outflow/(Inflow) due to Investment Experience	-	-
Net OPEB Expense	\$ 1,210,995	\$ 880,527
Reconciliation of Net OPEB Liability		
Net OPEB Liability beginning of year	\$ 20,911,899	\$ 19,866,775
OPEB Expense	1,210,995	880,527
Employer Contributions	(412,642)	(440,390)
Change in Outflow/(Inflow) due to Non-investment Experience	-	(1,336,527)
Change in Outflow/(Inflow) due to Assumption Changes	(1,843,477)	(349,809)
Change in Outflow/(Inflow) due to Investment Experience	-	-
Net OPEB Liability End of year	\$ 19,866,775	\$ 18,620,576
Deferred (Inflows)		
Non-investment Experience	\$ -	\$ (1,336,527)
Assumption Changes	\$ (1,843,477)	\$ (2,193,286)
Investment Experience	\$ -	\$ -
Deferred Outflows		
Non-investment Experience	\$ -	\$ -
Assumption Changes	\$ -	\$ -
Investment Experience	\$ -	\$ -
Net OPEB Liability Sensitivity		
Baseline Discount Rate	3.910%	3.991%
Baseline Discount Rate and 4.5% Ultimate Trend	\$ 19,866,775	\$ 18,620,576
Increase Discount Rate by One Percentage Point	\$ 16,947,919	\$ 15,933,245
Decrease Discount Rate by One Percentage Point	\$ 23,537,800	\$ 21,990,216
Increase Trend Rate by One Percentage Point	\$ 23,920,356	\$ 21,698,385
Decrease Trend Rate by One Percentage Point	\$ 16,718,145	\$ 16,221,215

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES DEFERRED INFLOWS AND OUTFLOWS BARGAINING UNIT NUMBER 1 PROFESSIONAL, ADMINISTRATIVE, FINANCIAL AND STAFF SERVICES									
Valuation Date		6/30/2018							
Measurement Date		6/30/2018							
	Non-Investment Experience			Assumption Changes			Investment Experience		
	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization
Plan Year Beginning									
7/1/2016	\$ -	7.062551	\$ -	\$ (2,147,553)	7.062551	\$ (304,076)	\$ -	\$ 5.000000	\$ -
7/1/2017	\$ (1,542,979)	7.473794	\$ (206,452)	\$ (754,890)	7.473794	\$ (101,005)	\$ -	5.000000	\$ -
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Current Plan Year End	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2018	\$ -	\$ (206,452)	\$ (206,452)	\$ -	\$ (405,081)	\$ (405,081)	\$ -	\$ -	\$ -
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Future Plan Years Ending									
6/30/2019	\$ -	\$ (206,452)	\$ (206,452)	\$ -	\$ (405,081)	\$ (405,081)	\$ -	\$ -	\$ -
6/30/2020	\$ -	\$ (206,452)	\$ (206,452)	\$ -	\$ (405,081)	\$ (405,081)	\$ -	\$ -	\$ -
6/30/2021	\$ -	\$ (206,452)	\$ (206,452)	\$ -	\$ (405,081)	\$ (405,081)	\$ -	\$ -	\$ -
6/30/2022	\$ -	\$ (206,452)	\$ (206,452)	\$ -	\$ (405,081)	\$ (405,081)	\$ -	\$ -	\$ -
6/30/2023	\$ -	\$ (206,452)	\$ (206,452)	\$ -	\$ (405,081)	\$ (405,081)	\$ -	\$ -	\$ -
6/30/2024	\$ -	\$ (206,452)	\$ (206,452)	\$ -	\$ (120,026)	\$ (120,026)	\$ -	\$ -	\$ -
6/30/2025	\$ -	\$ (97,815)	\$ (97,815)	\$ -	\$ (47,855)	\$ (47,855)	\$ -	\$ -	\$ -
6/30/2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ (1,336,527)	\$ (1,336,527)	\$ -	\$ (2,193,286)	\$ (2,193,286)	\$ -	\$ -	\$ -
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2018			\$ (1,336,527)			\$ (349,809)			\$ -

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 BARGAINING UNIT NUMBER 2 ATTORNEYS AND HEARING OFFICERS		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	4,291	4,404
Retired Participants ^a	<u>2,343</u>	<u>2,451</u>
Total Participants	6,634	6,855
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 561,285	\$ 548,737
Retired Participants	<u>401,866</u>	<u>413,628</u>
Total Participants	\$ 963,151	\$ 962,365
Actuarial Accrued Liability		
Active Participants	\$ 375,584	\$ 359,124
Retired Participants	<u>401,866</u>	<u>413,628</u>
Total Participants	\$ 777,450	\$ 772,752
Actuarial Value of Assets	\$ -	\$ 18,143
Unfunded Actuarial Accrued Liability	\$ 777,450	\$ 754,609
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 21,769	\$ 20,868
Administrative Expenses	70	73
Amortization of UAAL	<u>43,984</u>	<u>43,357</u>
Total ADC	\$ 65,823	\$ 64,298
Estimated Member Contributions	<u>(2,730)</u>	<u>(5,235)</u>
Net Employer ADC	\$ 63,093	\$ 59,063
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 18,965	\$ 18,949
Part B Reimbursement	4,122	5,045
Dental Claims	<u>1,561</u>	<u>1,589</u>
Total	\$ 24,648	\$ 25,583
Employer Implicit Costs	<u>3,431</u>	<u>3,449</u>
Total Employer Costs	\$ 28,079	\$ 29,032
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 578	\$ 1,450
Dental Claims	<u>496</u>	<u>505</u>
Total	\$ 1,074	\$ 1,955
Total Claims Costs	\$ 29,153	\$ 30,987

^aRetired participants with dental only coverage, 142 as of July 1, 2017, and 148 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING PROJECTIONS BASED ON JULY 1, 2018, ACTUARIAL VALUATION (\$ IN 000'S) BARGAINING UNIT NUMBER 2 ATTORNEYS AND HEARING OFFICERS									
Fiscal Year Beginning		7/1/2018							
Long-term Asset Return		7.000%							
Discount Rate		7.000%							
Year Plan is Fully Funded		2047							
FYE	Assets (boy)	Disbursements/ Benefits	Administrative Expenses	Pre-Fund Contribution	Investment Income	Assets (eoy)	Accrued Liability (eoy)	Funded Ratio	Normal Cost
2018	\$ 10,869	\$ -	\$ 7	\$ 6,330	\$ 951	\$ 18,143	\$ 772,752	2.3%	\$ 20,868
2019	18,143	-	73	10,471	1,628	30,169	819,128	3.7%	20,033
2020	30,169	-	80	15,085	2,628	47,802	864,580	5.5%	19,294
2021	47,802	-	91	19,385	4,010	71,106	908,230	7.8%	18,586
2022	71,106	-	101	18,687	5,617	95,309	950,070	10.0%	17,886
2023	95,309	-	110	17,997	7,287	120,483	989,994	12.2%	17,202
2024	120,483	-	121	17,322	9,026	146,710	1,027,819	14.3%	16,546
2025	146,710	-	130	16,676	10,839	174,095	1,063,497	16.4%	15,900
2026	174,095	-	140	16,040	12,734	202,729	1,097,116	18.5%	15,257
2027	202,729	-	149	15,406	14,716	232,702	1,128,741	20.6%	14,619
2028	232,702	-	157	14,776	16,792	264,113	1,158,351	22.8%	13,995
2029	264,113	-	165	14,161	18,969	297,078	1,185,911	25.1%	13,377
2030	297,078	-	174	13,551	21,256	331,711	1,211,202	27.4%	12,757
2031	331,711	-	182	12,939	23,659	368,127	1,234,182	29.8%	12,143
2032	368,127	-	190	12,334	26,187	406,458	1,254,803	32.4%	11,524
2033	406,458	-	198	11,722	28,848	446,830	1,272,887	35.1%	10,892
2034	446,830	-	206	11,098	31,653	489,375	1,288,306	38.0%	10,254
2035	489,375	-	214	10,468	34,609	534,238	1,301,091	41.1%	9,601
2036	534,238	-	221	9,821	37,727	581,565	1,311,153	44.4%	8,928
2037	581,565	-	228	9,156	41,017	631,510	1,318,185	47.9%	8,243
2038	631,510	-	235	8,478	44,489	684,242	1,321,935	51.8%	7,556
2039	684,242	-	242	7,798	48,157	739,955	1,322,375	56.0%	6,871
2040	739,955	-	248	7,119	52,033	798,859	1,319,579	60.5%	6,189
2041	798,859	-	254	6,442	56,133	861,180	1,313,632	65.6%	5,507
2042	861,180	-	259	5,766	60,472	927,159	1,304,438	71.1%	4,836
2043	927,159	-	263	5,099	65,067	997,062	1,291,975	77.2%	4,189
2044	997,062	-	267	4,455	69,938	1,071,188	1,276,557	83.9%	3,574
2045	1,071,188	-	269	3,843	75,106	1,149,868	1,258,355	91.4%	2,998
2046	1,149,868	-	271	3,269	80,594	1,233,460	1,237,478	99.7%	2,466
2047	1,233,460	95,105	272	2,738	83,154	1,223,975	1,214,170	100.8%	1,988
2048	1,223,975	108,903	272	-	81,922	1,196,722	1,188,630	100.7%	1,567
2049	1,196,722	108,664	272	-	80,022	1,167,808	1,161,099	100.6%	1,203
2050	1,167,808	108,090	270	-	78,018	1,137,466	1,131,848	100.5%	900
2051	1,137,466	107,358	268	-	75,919	1,105,759	1,100,982	100.4%	658
2052	1,105,759	106,312	266	-	73,736	1,072,917	1,068,780	100.4%	473
2053	1,072,917	104,982	262	-	71,483	1,039,156	1,035,501	100.4%	334
2054	1,039,156	103,596	259	-	69,167	1,004,468	1,001,180	100.3%	233
2055	1,004,468	102,212	256	-	66,787	968,787	965,780	100.3%	162
2056	968,787	100,763	252	-	64,339	932,111	929,326	100.3%	112

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM
DEVELOPMENT OF GASB NOS. 74 AND 75 SINGLE EQUIVALENT DISCOUNT RATE, (\$ IN 000'S)
BARGAINING UNIT NUMBER 2
ATTORNEYS AND HEARING OFFICERS

20-Year GO Municipal Bond Rate at June 30, 2018 **3.620%**
Long-Term Investment Return **7.000%**
Year Plan is Fully Funded **2047**
Single Equivalent Rate **4.072%**

Present Value of Benefits \$ **1,668,766** \$ **1,668,766**

FYE	Net Employer Benefits	Cross-over Investment Return	Discount Factor	Discounted Benefit Payment	Single Equivalent Return	Discount Factor	Discounted Benefit Payment
2019	\$ 29,032	3.620%	0.98238	\$ 28,520	4.072%	0.98024	\$ 28,458
2020	32,197	3.620%	0.94806	30,524	4.072%	0.94189	30,326
2021	36,252	3.620%	0.91494	33,168	4.072%	0.90503	32,809
2022	40,221	3.620%	0.88297	35,514	4.072%	0.86962	34,977
2023	44,180	3.620%	0.85213	37,647	4.072%	0.83559	36,916
2024	48,202	3.620%	0.82236	39,639	4.072%	0.80290	38,701
2025	52,159	3.620%	0.79363	41,395	4.072%	0.77148	40,240
2026	55,894	3.620%	0.76590	42,809	4.072%	0.74129	41,434
2027	59,432	3.620%	0.73914	43,929	4.072%	0.71229	42,333
2028	62,861	3.620%	0.71332	44,840	4.072%	0.68442	43,023
2029	66,200	3.620%	0.68840	45,572	4.072%	0.65764	43,535
2030	69,620	3.620%	0.66435	46,253	4.072%	0.63190	43,993
2031	72,923	3.620%	0.64114	46,754	4.072%	0.60718	44,278
2032	76,124	3.620%	0.61874	47,102	4.072%	0.58342	44,413
2033	79,331	3.620%	0.59713	47,371	4.072%	0.56059	44,473
2034	82,478	3.620%	0.57627	47,529	4.072%	0.53866	44,427
2035	85,409	3.620%	0.55614	47,499	4.072%	0.51758	44,206
2036	88,231	3.620%	0.53671	47,354	4.072%	0.49733	43,880
2037	91,146	3.620%	0.51796	47,210	4.072%	0.47787	43,556
2038	94,087	3.620%	0.49986	47,031	4.072%	0.45917	43,202
2039	96,829	3.620%	0.48240	46,710	4.072%	0.44120	42,722
2040	99,281	3.620%	0.46555	46,220	4.072%	0.42394	42,089
2041	101,433	3.620%	0.44928	45,572	4.072%	0.40735	41,319
2042	103,466	3.620%	0.43359	44,861	4.072%	0.39141	40,498
2043	105,311	3.620%	0.41844	44,066	4.072%	0.37610	39,607
2044	106,655	3.620%	0.40382	43,069	4.072%	0.36138	38,543
2045	107,669	3.620%	0.38971	41,960	4.072%	0.34724	37,387
2046	108,428	3.620%	0.37610	40,779	4.072%	0.33365	36,177
2047	108,816	3.620%	0.36296	39,496	4.072%	0.32060	34,886
2048	108,903	7.000%	0.33921	36,941	4.072%	0.30805	33,548
2049	108,664	7.000%	0.31702	34,449	4.072%	0.29600	32,165
2050	108,090	7.000%	0.29628	32,025	4.072%	0.28442	30,743
2051	107,358	7.000%	0.27690	29,727	4.072%	0.27329	29,340
2052	106,312	7.000%	0.25878	27,512	4.072%	0.26260	27,917
2053	104,982	7.000%	0.24186	25,390	4.072%	0.25232	26,489
2054	103,596	7.000%	0.22603	23,416	4.072%	0.24245	25,117
2055	102,212	7.000%	0.21125	21,592	4.072%	0.23296	23,811
2065	82,093	7.000%	0.10739	8,816	4.072%	0.15629	12,831
2075	43,333	7.000%	0.05459	2,366	4.072%	0.10486	4,544
2085	9,316	7.000%	0.02775	259	4.072%	0.07035	655
2095	448	7.000%	0.01411	6	4.072%	0.04720	21
2105	25	7.000%	0.00717	-	4.072%	0.03166	1
2115	-	7.000%	0.00365	-	4.072%	0.02124	-

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER BARGAINING UNIT NUMBER 2 ATTORNEYS AND HEARING OFFICERS		
Fiscal Year Ending	June 30, 2017	June 30, 2018
Total OPEB Liability		
Service Cost	\$ 56,706	\$ 49,771
Interest on Total OPEB Liability	44,801	50,488
Changes of Benefit Terms	-	-
Difference between Expected and Actual Experience	-	(91,419)
Changes of Assumptions	(120,350)	(50,429)
Benefit Payments	(26,821)	(28,533)
Net Change in Total OPEB Liability	\$ (45,664)	\$ (70,122)
Total OPEB Liability - Beginning	\$ 1,273,480	\$ 1,227,816
Total OPEB Liability - Ending (a)	\$ 1,227,816	\$ 1,157,694
Plan Fiduciary Net Position		
Employer PayGO Contributions	\$ 26,821	\$ 28,533
Employer Pre Funding Contributions	-	3,165
Active Member Contributions	-	3,165
Net Investment Income	-	951
Benefit Payments	(26,821)	(28,533)
Administrative Expense	-	(7)
Other	-	-
Net Change in Plan Fiduciary Net Position	\$ -	\$ 7,274
Plan Fiduciary Net Position - Beginning	\$ -	\$ 10,869
Plan Fiduciary Net Position - Ending (b)	\$ -	\$ 18,143
Net OPEB Liability - Ending (a) - (b)	\$ 1,227,816	\$ 1,139,551
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	0.000%	1.567%
Actuarially Determined Contribution (ADC)	\$ 63,906	\$ 62,658
Employer Contribution	\$ 26,821	\$ 31,698
Percentage of ADC made by Employer	42%	51%
Contribution Excess/(Shortfall)	\$ (37,085)	\$ (30,960)
Expected Return on Assets	\$ -	\$ 1,017
Investment (Gain)/Loss	\$ -	\$ 66
Average Expected Remaining Service	6.824846	7.207062
Blended Discount Rate Beginning of Year	3.402%	3.996%
Blended Discount Rate End of Year	3.996%	4.072%
Long-term Expected Return on Assets	7.280%	7.000%

Individual Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) BARGAINING UNIT NUMBER 2 ATTORNEYS AND HEARING OFFICERS		
Measured for the Plan's Fiscal Year Ending	June 30, 2017	June 30, 2018
Applicable for the Sponsor's Fiscal Year Ending	June 30, 2018	June 30, 2019
OPEB Expense		
Service Cost	\$ 56,706	\$ 49,771
Interest on the Total OPEB Liability	44,801	50,488
Current-Period Benefit Changes	-	-
Active Member Contributions	-	(3,165)
Projected Earnings on Plan Investments	-	(1,017)
Operating Expenses	-	7
Other Changes in Plan Fiduciary Net Position	-	-
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(12,685)
Recognition of Outflow/(Inflow) due to Assumption Changes	(17,634)	(24,631)
Recognition of Outflow/(Inflow) due to Investment Experience	-	13
Net OPEB Expense	\$ 83,873	\$ 58,781
Reconciliation of Net OPEB Liability		
Net OPEB Liability beginning of year	\$ 1,273,480	\$ 1,216,947
OPEB Expense	83,873	58,781
Employer Contributions	(26,821)	(31,698)
Change in Outflow/(Inflow) due to Non-investment Experience	-	(78,734)
Change in Outflow/(Inflow) due to Assumption Changes	(102,716)	(25,798)
Change in Outflow/(Inflow) due to Investment Experience	-	53
Net OPEB Liability End of year	\$ 1,227,816	\$ 1,139,551
Deferred (Inflows)		
Non-investment Experience	\$ -	\$ (78,734)
Assumption Changes	\$ (102,716)	\$ (128,514)
Investment Experience	\$ -	\$ -
Deferred Outflows		
Non-investment Experience	\$ -	\$ -
Assumption Changes	\$ -	\$ -
Investment Experience	\$ -	\$ 53
Net OPEB Liability Sensitivity		
Baseline Discount Rate	3.996%	4.072%
Baseline Discount Rate and 4.5% Ultimate Trend	\$ 1,227,816	\$ 1,139,551
Increase Discount Rate by One Percentage Point	\$ 1,057,258	\$ 981,552
Decrease Discount Rate by One Percentage Point	\$ 1,440,137	\$ 1,335,619
Increase Trend Rate by One Percentage Point	\$ 1,461,514	\$ 1,317,535
Decrease Trend Rate by One Percentage Point	\$ 1,043,900	\$ 998,562

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES DEFERRED INFLOWS AND OUTFLOWS BARGAINING UNIT NUMBER 2 ATTORNEYS AND HEARING OFFICERS									
Valuation Date	6/30/2018								
Measurement Date	6/30/2018								
Plan Year Beginning	Non-Investment Experience			Assumption Changes			Investment Experience		
	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization
7/1/2016	\$ -	6.824846	\$ -	\$ (120,350)	6.824846	\$ (17,634)	\$ -	\$ 5.000000	\$ -
7/1/2017	\$ (91,419)	7.207062	\$ (12,685)	\$ (50,429)	7.207062	\$ (6,997)	\$ 66	5.000000	\$ 13
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Current Plan Year End	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2018	\$ -	\$ (12,685)	\$ (12,685)	\$ -	\$ (24,631)	\$ (24,631)	\$ 13	\$ -	\$ 13
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Future Plan Years Ending									
6/30/2019	\$ -	\$ (12,685)	\$ (12,685)	\$ -	\$ (24,631)	\$ (24,631)	\$ 13	\$ -	\$ 13
6/30/2020	\$ -	\$ (12,685)	\$ (12,685)	\$ -	\$ (24,631)	\$ (24,631)	\$ 13	\$ -	\$ 13
6/30/2021	\$ -	\$ (12,685)	\$ (12,685)	\$ -	\$ (24,631)	\$ (24,631)	\$ 13	\$ -	\$ 13
6/30/2022	\$ -	\$ (12,685)	\$ (12,685)	\$ -	\$ (24,631)	\$ (24,631)	\$ 14	\$ -	\$ 14
6/30/2023	\$ -	\$ (12,685)	\$ (12,685)	\$ -	\$ (21,543)	\$ (21,543)	\$ -	\$ -	\$ -
6/30/2024	\$ -	\$ (12,685)	\$ (12,685)	\$ -	\$ (6,997)	\$ (6,997)	\$ -	\$ -	\$ -
6/30/2025	\$ -	\$ (2,624)	\$ (2,624)	\$ -	\$ (1,450)	\$ (1,450)	\$ -	\$ -	\$ -
6/30/2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ (78,734)	\$ (78,734)	\$ -	\$ (128,514)	\$ (128,514)	\$ 53	\$ -	\$ 53
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2018			\$ (78,734)			\$ (25,798)			\$ 53

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 BARGAINING UNIT NUMBER 3 PROFESSIONAL EDUCATORS AND LIBRARIANS		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	1,727	1,735
Retired Participants ^a	<u>2,194</u>	<u>2,215</u>
Total Participants	3,921	3,950
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 228,256	\$ 220,628
Retired Participants	<u>364,074</u>	<u>359,529</u>
Total Participants	\$ 592,330	\$ 580,157
Actuarial Accrued Liability		
Active Participants	\$ 151,018	\$ 145,334
Retired Participants	<u>364,074</u>	<u>359,529</u>
Total Participants	\$ 515,092	\$ 504,863
Actuarial Value of Assets	\$ -	\$ -
Unfunded Actuarial Accrued Liability	\$ 515,092	\$ 504,863
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 10,574	\$ 10,009
Administrative Expenses	62	63
Amortization of UAAL	<u>29,141</u>	<u>29,008</u>
Total ADC	\$ 39,777	\$ 39,080
Estimated Member Contributions	-	<u>(1,259)</u>
Net Employer ADC	\$ 39,777	\$ 37,821
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 17,201	\$ 16,541
Part B Reimbursement	3,030	3,697
Dental Claims	<u>1,412</u>	<u>1,401</u>
Total	\$ 21,643	\$ 21,639
Employer Implicit Costs	<u>3,269</u>	<u>3,435</u>
Total Employer Costs	\$ 24,912	\$ 25,074
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 497	\$ 1,180
Dental Claims	<u>444</u>	<u>441</u>
Total	\$ 941	\$ 1,621
Total Claims Costs	\$ 25,853	\$ 26,695

^aRetired participants with dental only coverage, 203 as of July 1, 2017, and 205 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING PROJECTIONS BASED ON JULY 1, 2018, ACTUARIAL VALUATION (\$ IN 000'S) BARGAINING UNIT NUMBER 3 PROFESSIONAL EDUCATORS AND LIBRARIANS									
Fiscal Year Beginning		7/1/2018							
Long-term Asset Return		7.000%							
Discount Rate		7.000%							
Year Plan is Fully Funded		2048							
FYE	Assets (boy)	Disbursements/ Benefits	Administrative Expenses	Pre-Fund Contribution	Investment Income	Assets (eoy)	Accrued Liability (eoy)	Funded Ratio	Normal Cost
2018	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 504,863	0.0%	\$ 10,009
2019	-	-	63	2,518	84	2,539	524,962	0.5%	9,360
2020	2,539	-	67	4,714	338	7,524	543,791	1.4%	8,798
2021	7,524	-	74	6,653	753	14,856	560,780	2.6%	8,268
2022	14,856	-	79	8,347	1,324	24,448	576,002	4.2%	7,765
2023	24,448	-	85	7,850	1,979	34,192	589,262	5.8%	7,284
2024	34,192	-	91	7,375	2,644	44,120	600,549	7.3%	6,818
2025	44,120	-	97	6,914	3,323	54,260	609,896	8.9%	6,361
2026	54,260	-	101	6,463	4,017	64,639	617,431	10.5%	5,918
2027	64,639	-	106	6,024	4,728	75,285	623,195	12.1%	5,491
2028	75,285	-	110	5,601	5,459	86,235	627,213	13.7%	5,083
2029	86,235	-	113	5,196	6,211	97,529	629,632	15.5%	4,694
2030	97,529	-	117	4,810	6,989	109,211	630,450	17.3%	4,315
2031	109,211	-	120	4,435	7,793	121,319	629,582	19.3%	3,949
2032	121,319	-	123	4,072	8,628	133,896	627,042	21.4%	3,593
2033	133,896	-	125	3,719	9,496	146,986	622,894	23.6%	3,246
2034	146,986	-	128	3,374	10,401	160,633	617,109	26.0%	2,905
2035	160,633	-	130	3,035	11,344	174,882	609,705	28.7%	2,581
2036	174,882	-	131	2,713	12,331	189,795	600,763	31.6%	2,279
2037	189,795	-	132	2,412	13,364	205,439	590,440	34.8%	1,996
2038	205,439	-	133	2,129	14,449	221,884	578,812	38.3%	1,737
2039	221,884	-	134	1,871	15,592	239,213	565,922	42.3%	1,501
2040	239,213	-	133	1,635	16,796	257,511	552,002	46.6%	1,290
2041	257,511	-	133	1,423	18,070	276,871	537,120	51.5%	1,103
2042	276,871	-	132	1,235	19,419	297,393	521,421	57.0%	934
2043	297,393	-	130	1,064	20,849	319,176	505,061	63.2%	781
2044	319,176	-	128	910	22,369	342,327	488,131	70.1%	648
2045	342,327	-	126	774	23,985	366,960	470,865	77.9%	533
2046	366,960	-	123	656	25,705	393,198	453,361	86.7%	430
2047	393,198	-	121	551	27,539	421,167	435,672	96.7%	342
2048	421,167	30,188	118	460	28,455	419,776	417,886	100.5%	267
2049	419,776	45,760	114	-	27,806	401,708	400,082	100.4%	204
2050	401,708	44,400	111	-	26,588	383,785	382,372	100.4%	152
2051	383,785	42,994	107	-	25,382	366,066	364,822	100.3%	112
2052	366,066	41,606	104	-	24,189	348,545	347,437	100.3%	82
2053	348,545	40,186	100	-	23,012	331,271	330,271	100.3%	58
2054	331,271	38,762	97	-	21,851	314,263	313,353	100.3%	40
2055	314,263	37,393	93	-	20,708	297,485	296,648	100.3%	28
2056	297,485	36,017	90	-	19,581	280,959	280,184	100.3%	19

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM							
DEVELOPMENT OF GASB NOS. 74 AND 75 SINGLE EQUIVALENT DISCOUNT RATE, (\$ IN 000'S)							
BARGAINING UNIT NUMBER 3							
PROFESSIONAL EDUCATORS AND LIBRARIANS							
20-Year GO Municipal Bond Rate at June 30, 2018		3.620%					
Long-Term Investment Return		7.000%					
Year Plan is Fully Funded		2048					
Single Equivalent Rate		3.902%					
Present Value of Benefits		\$ 936,269			\$ 936,269		
FYE	Net Employer Benefits	Cross-over Investment Return	Discount Factor	Discounted Benefit Payment	Single Equivalent Return	Discount Factor	Discounted Benefit Payment
2019	\$ 25,074	3.620%	0.98238	\$ 24,632	3.902%	0.98104	\$ 24,599
2020	26,990	3.620%	0.94806	25,588	3.902%	0.94420	25,484
2021	29,460	3.620%	0.91494	26,954	3.902%	0.90875	26,772
2022	31,770	3.620%	0.88297	28,052	3.902%	0.87462	27,787
2023	34,176	3.620%	0.85213	29,122	3.902%	0.84178	28,768
2024	36,482	3.620%	0.82236	30,002	3.902%	0.81017	29,557
2025	38,640	3.620%	0.79363	30,666	3.902%	0.77974	30,129
2026	40,550	3.620%	0.76590	31,058	3.902%	0.75046	30,431
2027	42,314	3.620%	0.73914	31,276	3.902%	0.72228	30,563
2028	43,951	3.620%	0.71332	31,351	3.902%	0.69515	30,553
2029	45,345	3.620%	0.68840	31,216	3.902%	0.66905	30,338
2030	46,655	3.620%	0.66435	30,995	3.902%	0.64393	30,042
2031	47,949	3.620%	0.64114	30,742	3.902%	0.61974	29,716
2032	49,127	3.620%	0.61874	30,397	3.902%	0.59647	29,303
2033	50,142	3.620%	0.59713	29,941	3.902%	0.57407	28,785
2034	51,086	3.620%	0.57627	29,439	3.902%	0.55251	28,226
2035	51,906	3.620%	0.55614	28,867	3.902%	0.53177	27,602
2036	52,558	3.620%	0.53671	28,208	3.902%	0.51180	26,899
2037	52,976	3.620%	0.51796	27,439	3.902%	0.49258	26,095
2038	53,246	3.620%	0.49986	26,616	3.902%	0.47408	25,243
2039	53,413	3.620%	0.48240	25,766	3.902%	0.45628	24,371
2040	53,293	3.620%	0.46555	24,810	3.902%	0.43914	23,403
2041	53,063	3.620%	0.44928	23,840	3.902%	0.42265	22,427
2042	52,652	3.620%	0.43359	22,829	3.902%	0.40678	21,418
2043	52,056	3.620%	0.41844	21,782	3.902%	0.39150	20,380
2044	51,342	3.620%	0.40382	20,733	3.902%	0.37680	19,346
2045	50,384	3.620%	0.38971	19,635	3.902%	0.36265	18,272
2046	49,328	3.620%	0.37610	18,552	3.902%	0.34903	17,217
2047	48,217	3.620%	0.36296	17,501	3.902%	0.33593	16,197
2048	47,022	3.620%	0.35028	16,471	3.902%	0.32331	15,203
2049	45,760	7.000%	0.32736	14,980	3.902%	0.31117	14,239
2050	44,400	7.000%	0.30595	13,584	3.902%	0.29949	13,297
2051	42,994	7.000%	0.28593	12,293	3.902%	0.28824	12,393
2052	41,606	7.000%	0.26723	11,118	3.902%	0.27741	11,542
2053	40,186	7.000%	0.24974	10,036	3.902%	0.26700	10,730
2054	38,762	7.000%	0.23341	9,047	3.902%	0.25697	9,961
2055	37,393	7.000%	0.21814	8,157	3.902%	0.24732	9,248
2065	23,671	7.000%	0.11089	2,625	3.902%	0.16867	3,993
2075	10,415	7.000%	0.05637	587	3.902%	0.11503	1,198
2085	2,279	7.000%	0.02866	65	3.902%	0.07845	179
2095	218	7.000%	0.01457	3	3.902%	0.05350	12
2105	43	7.000%	0.00741	-	3.902%	0.03648	2

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER BARGAINING UNIT NUMBER 3 PROFESSIONAL EDUCATORS AND LIBRARIANS		
Fiscal Year Ending	June 30, 2017	June 30, 2018
Total OPEB Liability		
Service Cost	\$ 26,332	\$ 23,166
Interest on Total OPEB Liability	27,455	30,951
Changes of Benefit Terms	-	-
Difference between Expected and Actual Experience	-	(59,545)
Changes of Assumptions	(77,106)	(24,268)
Benefit Payments	(23,795)	(25,176)
Net Change in Total OPEB Liability	\$ (47,114)	\$ (54,872)
Total OPEB Liability - Beginning	\$ 845,603	\$ 798,489
Total OPEB Liability - Ending (a)	\$ 798,489	\$ 743,617
Plan Fiduciary Net Position		
Employer PayGO Contributions	\$ 23,795	\$ 25,176
Employer Pre Funding Contributions	-	-
Active Member Contributions	-	-
Net Investment Income	-	-
Benefit Payments	(23,795)	(25,176)
Administrative Expense	-	-
Other	-	-
Net Change in Plan Fiduciary Net Position	\$ -	\$ -
Plan Fiduciary Net Position - Beginning	\$ -	\$ -
Plan Fiduciary Net Position - Ending (b)	\$ -	\$ -
Net OPEB Liability - Ending (a) - (b)	\$ 798,489	\$ 743,617
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	0.000%	0.000%
Actuarially Determined Contribution (ADC)	\$ 38,618	\$ 39,777
Employer Contribution	\$ 23,795	\$ 25,176
Percentage of ADC made by Employer	62%	63%
Contribution Excess/(Shortfall)	\$ (14,823)	\$ (14,601)
Expected Return on Assets	\$ -	\$ -
Investment (Gain)/Loss	\$ -	\$ -
Average Expected Remaining Service	3.865859	3.935984
Blended Discount Rate Beginning of Year	3.192%	3.825%
Blended Discount Rate End of Year	3.825%	3.902%
Long-term Expected Return on Assets	7.280%	7.000%

Individual Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) BARGAINING UNIT NUMBER 3 PROFESSIONAL EDUCATORS AND LIBRARIANS		
Measured for the Plan's Fiscal Year Ending	June 30, 2017	June 30, 2018
Applicable for the Sponsor's Fiscal Year Ending	June 30, 2018	June 30, 2019
OPEB Expense		
Service Cost	\$ 26,332	\$ 23,166
Interest on the Total OPEB Liability	27,455	30,951
Current-Period Benefit Changes	-	-
Active Member Contributions	-	-
Projected Earnings on Plan Investments	-	-
Operating Expenses	-	-
Other Changes in Plan Fiduciary Net Position	-	-
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(15,128)
Recognition of Outflow/(Inflow) due to Assumption Changes	(19,945)	(26,111)
Recognition of Outflow/(Inflow) due to Investment Experience	-	-
Net OPEB Expense	\$ 33,842	\$ 12,878
Reconciliation of Net OPEB Liability		
Net OPEB Liability beginning of year	\$ 845,603	\$ 798,489
OPEB Expense	33,842	12,878
Employer Contributions	(23,795)	(25,176)
Change in Outflow/(Inflow) due to Non-investment Experience	-	(44,417)
Change in Outflow/(Inflow) due to Assumption Changes	(57,161)	1,843
Change in Outflow/(Inflow) due to Investment Experience	-	-
Net OPEB Liability End of year	\$ 798,489	\$ 743,617
Deferred (Inflows)		
Non-investment Experience	\$ -	\$ (44,417)
Assumption Changes	\$ (57,161)	\$ (55,318)
Investment Experience	\$ -	\$ -
Deferred Outflows		
Non-investment Experience	\$ -	\$ -
Assumption Changes	\$ -	\$ -
Investment Experience	\$ -	\$ -
Net OPEB Liability Sensitivity		
Baseline Discount Rate	3.825%	3.902%
Baseline Discount Rate and 4.5% Ultimate Trend	\$ 798,489	\$ 743,617
Increase Discount Rate by One Percentage Point	\$ 695,786	\$ 650,280
Decrease Discount Rate by One Percentage Point	\$ 925,399	\$ 858,612
Increase Trend Rate by One Percentage Point	\$ 928,711	\$ 842,224
Decrease Trend Rate by One Percentage Point	\$ 693,446	\$ 663,654

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES DEFERRED INFLOWS AND OUTFLOWS BARGAINING UNIT NUMBER 3 PROFESSIONAL EDUCATORS AND LIBRARIANS									
Valuation Date		6/30/2018							
Measurement Date		6/30/2018							
	Non-Investment Experience			Assumption Changes			Investment Experience		
	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization
Plan Year Beginning									
7/1/2016	\$ -	3.865859	\$ -	\$ (77,106)	3.865859	\$ (19,945)	\$ -	\$ 5.000000	\$ -
7/1/2017	\$ (59,545)	3.935984	\$ (15,128)	\$ (24,268)	3.935984	\$ (6,166)	\$ -	5.000000	\$ -
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Current Plan Year End	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2018	\$ -	\$ (15,128)	\$ (15,128)	\$ -	\$ (26,111)	\$ (26,111)	\$ -	\$ -	\$ -
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Future Plan Years Ending									
6/30/2019	\$ -	\$ (15,128)	\$ (15,128)	\$ -	\$ (26,111)	\$ (26,111)	\$ -	\$ -	\$ -
6/30/2020	\$ -	\$ (15,128)	\$ (15,128)	\$ -	\$ (23,437)	\$ (23,437)	\$ -	\$ -	\$ -
6/30/2021	\$ -	\$ (14,161)	\$ (14,161)	\$ -	\$ (5,770)	\$ (5,770)	\$ -	\$ -	\$ -
6/30/2022	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2023	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2024	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2025	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ (44,417)	\$ (44,417)	\$ -	\$ (55,318)	\$ (55,318)	\$ -	\$ -	\$ -
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2018			\$ (44,417)			\$ 1,843			\$ -

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 BARGAINING UNIT NUMBER 4 OFFICE AND ALLIED		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	23,777	22,745
Retired Participants ^a	<u>15,873</u>	<u>16,046</u>
Total Participants	39,650	38,791
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 2,620,504	\$ 2,432,025
Retired Participants	<u>2,212,536</u>	<u>2,188,848</u>
Total Participants	\$ 4,833,040	\$ 4,620,873
Actuarial Accrued Liability		
Active Participants	\$ 1,657,820	\$ 1,525,740
Retired Participants	<u>2,212,536</u>	<u>2,188,848</u>
Total Participants	\$ 3,870,356	\$ 3,714,588
Actuarial Value of Assets	\$ -	\$ -
Unfunded Actuarial Accrued Liability	\$ 3,870,356	\$ 3,714,588
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 108,143	\$ 97,455
Administrative Expenses	397	401
Amortization of UAAL	<u>218,965</u>	<u>213,428</u>
Total ADC	\$ 327,505	\$ 311,284
Estimated Member Contributions	-	(12,232)
Net Employer ADC	\$ 327,505	\$ 299,052
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 110,706	\$ 107,383
Part B Reimbursement	18,984	22,918
Dental Claims	<u>9,212</u>	<u>9,161</u>
Total	\$ 138,902	\$ 139,462
Employer Implicit Costs	<u>20,059</u>	<u>20,832</u>
Total Employer Costs	\$ 158,961	\$ 160,294
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 2,634	\$ 5,236
Dental Claims	<u>2,834</u>	<u>2,823</u>
Total	\$ 5,468	\$ 8,059
Total Claims Costs	\$ 164,429	\$ 168,353

^aRetired participants with dental only coverage, 1,374 as of July 1, 2017, and 1,396 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING PROJECTIONS BASED ON JULY 1, 2018, ACTUARIAL VALUATION (\$ IN 000'S) BARGAINING UNIT NUMBER 4 OFFICE AND ALLIED									
Fiscal Year Beginning		7/1/2018							
Long-term Asset Return		7.000%							
Discount Rate		7.000%							
Year Plan is Fully Funded		2049							
FYE	Assets (boy)	Disbursements/ Benefits	Administrative Expenses	Pre-Fund Contribution	Investment Income	Assets (eoy)	Accrued Liability (eoy)	Funded Ratio	Normal Cost
2018	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,714,588	0.0%	\$ 97,455
2019	-	-	401	24,464	828	24,891	3,912,981	0.6%	94,245
2020	24,891	-	433	47,339	3,356	75,153	4,108,675	1.8%	91,184
2021	75,153	-	475	68,744	7,610	151,032	4,297,062	3.5%	88,082
2022	151,032	-	518	88,600	13,603	252,717	4,477,532	5.6%	84,934
2023	252,717	-	560	85,495	20,613	358,265	4,649,881	7.7%	81,762
2024	358,265	-	602	82,364	27,892	467,919	4,813,702	9.7%	78,593
2025	467,919	-	642	79,235	35,458	581,970	4,969,147	11.7%	75,396
2026	581,970	-	679	76,076	43,332	700,699	5,116,513	13.7%	72,186
2027	700,699	-	714	72,900	51,533	824,418	5,256,278	15.7%	69,028
2028	824,418	-	747	69,776	60,084	953,531	5,388,706	17.7%	65,913
2029	953,531	-	781	66,694	69,015	1,088,459	5,513,146	19.7%	62,835
2030	1,088,459	-	815	63,650	78,354	1,229,648	5,628,970	21.8%	59,840
2031	1,229,648	-	848	60,688	88,134	1,377,622	5,736,042	24.0%	56,907
2032	1,377,622	-	880	57,787	98,391	1,532,920	5,834,183	26.3%	54,004
2033	1,532,920	-	912	54,916	109,163	1,696,087	5,922,817	28.6%	51,140
2034	1,696,087	-	945	52,084	120,486	1,867,712	6,001,171	31.1%	48,312
2035	1,867,712	-	977	49,288	132,402	2,048,425	6,068,712	33.8%	45,526
2036	2,048,425	-	1,008	46,534	144,956	2,238,907	6,125,155	36.6%	42,797
2037	2,238,907	-	1,038	43,835	158,196	2,439,900	6,170,246	39.5%	40,128
2038	2,439,900	-	1,067	41,195	172,174	2,652,202	6,203,324	42.8%	37,518
2039	2,652,202	-	1,096	38,614	186,945	2,876,665	6,224,106	46.2%	34,947
2040	2,876,665	-	1,124	36,071	202,569	3,114,181	6,232,164	50.0%	32,399
2041	3,114,181	-	1,150	33,549	219,107	3,365,687	6,227,095	54.0%	29,875
2042	3,365,687	-	1,175	31,050	236,626	3,632,188	6,208,732	58.5%	27,351
2043	3,632,188	-	1,198	28,550	255,194	3,914,734	6,176,692	63.4%	24,825
2044	3,914,734	-	1,220	26,045	274,885	4,214,444	6,130,904	68.7%	22,305
2045	4,214,444	-	1,239	23,544	295,779	4,532,528	6,071,364	74.7%	19,796
2046	4,532,528	-	1,256	21,052	317,958	4,870,282	5,997,779	81.2%	17,326
2047	4,870,282	-	1,271	18,597	341,516	5,229,124	5,910,197	88.5%	14,928
2048	5,229,124	-	1,283	16,211	366,552	5,610,604	5,808,885	96.6%	12,647
2049	5,610,604	261,350	1,291	13,938	384,185	5,746,086	5,694,717	100.9%	10,515
2050	5,746,086	517,649	1,294	-	384,370	5,611,513	5,569,094	100.8%	8,547
2051	5,611,513	517,053	1,293	-	374,971	5,468,138	5,433,195	100.6%	6,767
2052	5,468,138	514,521	1,286	-	365,022	5,317,353	5,288,501	100.5%	5,197
2053	5,317,353	509,853	1,275	-	354,628	5,160,853	5,136,831	100.5%	3,861
2054	5,160,853	503,458	1,259	-	343,893	5,000,029	4,979,734	100.4%	2,783
2055	5,000,029	494,939	1,237	-	332,929	4,836,782	4,819,302	100.4%	1,961
2056	4,836,782	484,699	1,212	-	321,855	4,672,726	4,657,357	100.3%	1,357

Individual Actuarial Valuation Results

**CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM
DEVELOPMENT OF GASB NOS. 74 AND 75 SINGLE EQUIVALENT DISCOUNT RATE, (\$ IN 000'S)
BARGAINING UNIT NUMBER 4
OFFICE AND ALLIED**

20-Year GO Municipal Bond Rate at June 30, 2018 **3.620%**
Long-Term Investment Return **7.000%**
Year Plan is Fully Funded **2049**
Single Equivalent Rate **4.033%**

Present Value of Benefits \$ **8,091,297** \$ **8,091,297**

FYE	Net Employer Benefits	Cross-over Investment Return	Discount Factor	Discounted Benefit Payment	Single Equivalent Return	Discount Factor	Discounted Benefit Payment
2019	\$ 160,294	3.620%	0.98238	\$ 157,469	4.033%	0.98043	\$ 157,156
2020	173,012	3.620%	0.94806	164,025	4.033%	0.94242	163,051
2021	190,149	3.620%	0.91494	173,974	4.033%	0.90589	172,254
2022	207,340	3.620%	0.88297	183,075	4.033%	0.87078	180,546
2023	224,141	3.620%	0.85213	190,997	4.033%	0.83702	187,611
2024	240,766	3.620%	0.82236	197,995	4.033%	0.80458	193,714
2025	256,670	3.620%	0.79363	203,700	4.033%	0.77339	198,506
2026	271,693	3.620%	0.76590	208,090	4.033%	0.74341	201,979
2027	285,691	3.620%	0.73914	211,167	4.033%	0.71459	204,152
2028	298,975	3.620%	0.71332	213,266	4.033%	0.68689	205,364
2029	312,441	3.620%	0.68840	215,085	4.033%	0.66027	206,294
2030	326,004	3.620%	0.66435	216,581	4.033%	0.63467	206,906
2031	339,209	3.620%	0.64114	217,482	4.033%	0.61007	206,941
2032	352,051	3.620%	0.61874	217,830	4.033%	0.58642	206,450
2033	364,883	3.620%	0.59713	217,882	4.033%	0.56369	205,681
2034	377,858	3.620%	0.57627	217,747	4.033%	0.54184	204,739
2035	390,688	3.620%	0.55614	217,276	4.033%	0.52084	203,485
2036	403,109	3.620%	0.53671	216,351	4.033%	0.50065	201,815
2037	415,082	3.620%	0.51796	214,995	4.033%	0.48124	199,755
2038	426,988	3.620%	0.49986	213,435	4.033%	0.46259	197,519
2039	438,417	3.620%	0.48240	211,492	4.033%	0.44466	194,944
2040	449,467	3.620%	0.46555	209,248	4.033%	0.42742	192,111
2041	460,073	3.620%	0.44928	206,702	4.033%	0.41085	189,021
2042	469,974	3.620%	0.43359	203,775	4.033%	0.39492	185,605
2043	479,347	3.620%	0.41844	200,578	4.033%	0.37962	181,968
2044	487,860	3.620%	0.40382	197,008	4.033%	0.36490	178,021
2045	495,456	3.620%	0.38971	193,086	4.033%	0.35076	173,784
2046	502,413	3.620%	0.37610	188,957	4.033%	0.33716	169,393
2047	508,414	3.620%	0.36296	184,534	4.033%	0.32409	164,772
2048	513,286	3.620%	0.35028	179,793	4.033%	0.31153	159,903
2049	516,503	3.620%	0.33804	174,600	4.033%	0.29945	154,668
2050	517,649	7.000%	0.31593	163,539	4.033%	0.28784	149,002
2051	517,053	7.000%	0.29526	152,664	4.033%	0.27669	143,062
2052	514,521	7.000%	0.27594	141,979	4.033%	0.26596	136,843
2053	509,853	7.000%	0.25789	131,486	4.033%	0.25565	130,345
2054	503,458	7.000%	0.24102	121,343	4.033%	0.24574	123,721
2055	494,939	7.000%	0.22525	111,486	4.033%	0.23622	116,913
2065	392,508	7.000%	0.11451	44,945	4.033%	0.15908	62,440
2075	261,842	7.000%	0.05821	15,242	4.033%	0.10713	28,052
2085	93,892	7.000%	0.02959	2,778	4.033%	0.07215	6,774
2095	8,972	7.000%	0.01504	135	4.033%	0.04859	436
2105	92	7.000%	0.00765	1	4.033%	0.03272	3
2115	2	7.000%	0.00389	-	4.033%	0.02204	-

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER BARGAINING UNIT NUMBER 4 OFFICE AND ALLIED		
Fiscal Year Ending	June 30, 2017	June 30, 2018
Total OPEB Liability		
Service Cost	\$ 283,067	\$ 248,121
Interest on Total OPEB Liability	221,443	249,290
Changes of Benefit Terms	-	-
Difference between Expected and Actual Experience	-	(698,936)
Changes of Assumptions	(607,874)	(193,217)
Benefit Payments	(151,838)	(161,833)
Net Change in Total OPEB Liability	\$ (255,202)	\$ (556,575)
Total OPEB Liability - Beginning	\$ 6,380,830	\$ 6,125,628
Total OPEB Liability - Ending (a)	\$ 6,125,628	\$ 5,569,053
Plan Fiduciary Net Position		
Employer PayGO Contributions	\$ 151,838	\$ 161,833
Employer Pre Funding Contributions	-	-
Active Member Contributions	-	-
Net Investment Income	-	-
Benefit Payments	(151,838)	(161,833)
Administrative Expense	-	-
Other	-	-
Net Change in Plan Fiduciary Net Position	\$ -	\$ -
Plan Fiduciary Net Position - Beginning	\$ -	\$ -
Plan Fiduciary Net Position - Ending (b)	\$ -	\$ -
Net OPEB Liability - Ending (a) - (b)	\$ 6,125,628	\$ 5,569,053
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	0.000%	0.000%
Actuarially Determined Contribution (ADC)	\$ 317,966	\$ 327,505
Employer Contribution	\$ 151,838	\$ 161,833
Percentage of ADC made by Employer	48%	49%
Contribution Excess/(Shortfall)	\$ (166,128)	\$ (165,672)
Expected Return on Assets	\$ -	\$ -
Investment (Gain)/Loss	\$ -	\$ -
Average Expected Remaining Service	6.778566	6.895316
Blended Discount Rate Beginning of Year	3.361%	3.961%
Blended Discount Rate End of Year	3.961%	4.033%
Long-term Expected Return on Assets	7.280%	7.000%

Individual Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) BARGAINING UNIT NUMBER 4 OFFICE AND ALLIED		
Measured for the Plan's Fiscal Year Ending Applicable for the Sponsor's Fiscal Year Ending	June 30, 2017 June 30, 2018	June 30, 2018 June 30, 2019
OPEB Expense		
Service Cost	\$ 283,067	\$ 248,121
Interest on the Total OPEB Liability	221,443	249,290
Current-Period Benefit Changes	-	-
Active Member Contributions	-	-
Projected Earnings on Plan Investments	-	-
Operating Expenses	-	-
Other Changes in Plan Fiduciary Net Position	-	-
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(101,364)
Recognition of Outflow/(Inflow) due to Assumption Changes	(89,676)	(117,697)
Recognition of Outflow/(Inflow) due to Investment Experience	-	-
Net OPEB Expense	\$ 414,834	\$ 278,350
Reconciliation of Net OPEB Liability		
Net OPEB Liability beginning of year	\$ 6,380,830	\$ 6,125,628
OPEB Expense	414,834	278,350
Employer Contributions	(151,838)	(161,833)
Change in Outflow/(Inflow) due to Non-investment Experience	-	(597,572)
Change in Outflow/(Inflow) due to Assumption Changes	(518,198)	(75,520)
Change in Outflow/(Inflow) due to Investment Experience	-	-
Net OPEB Liability End of year	\$ 6,125,628	\$ 5,569,053
Deferred (Inflows)		
Non-investment Experience	\$ -	\$ (597,572)
Assumption Changes	\$ (518,198)	\$ (593,718)
Investment Experience	\$ -	\$ -
Deferred Outflows		
Non-investment Experience	\$ -	\$ -
Assumption Changes	\$ -	\$ -
Investment Experience	\$ -	\$ -
Net OPEB Liability Sensitivity		
Baseline Discount Rate	3.961%	4.033%
Baseline Discount Rate and 4.5% Ultimate Trend	\$ 6,125,628	\$ 5,569,053
Increase Discount Rate by One Percentage Point	\$ 5,275,532	\$ 4,813,747
Decrease Discount Rate by One Percentage Point	\$ 7,187,354	\$ 6,509,119
Increase Trend Rate by One Percentage Point	\$ 7,286,992	\$ 6,415,205
Decrease Trend Rate by One Percentage Point	\$ 5,215,196	\$ 4,901,898

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM										
GASB NOS. 74 AND 75 DISCLOSURES										
DEFERRED INFLOWS AND OUTFLOWS										
BARGAINING UNIT NUMBER 4										
OFFICE AND ALLIED										
Valuation Date		6/30/2018								
Measurement Date		6/30/2018								
		Non-Investment Experience			Assumption Changes			Investment Experience		
			Amortization	Initial		Amortization	Initial		Amortization	Initial
Plan Year Beginning		(Gain)/Loss	Factor	Amortization	(Gain)/Loss	Factor	Amortization	(Gain)/Loss	Factor	Amortization
7/1/2016		\$ -	6.778566	\$ -	\$ (607,874)	6.778566	\$ (89,676)	\$ -	\$ 5.000000	\$ -
7/1/2017		\$ (698,936)	6.895316	\$ (101,364)	\$ (193,217)	6.895316	\$ (28,021)	\$ -	5.000000	\$ -
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Current Plan Year End		Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2018		\$ -	\$ (101,364)	\$ (101,364)	\$ -	\$ (117,697)	\$ (117,697)	\$ -	\$ -	\$ -
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Future Plan Years Ending										
6/30/2019		\$ -	\$ (101,364)	\$ (101,364)	\$ -	\$ (117,697)	\$ (117,697)	\$ -	\$ -	\$ -
6/30/2020		\$ -	\$ (101,364)	\$ (101,364)	\$ -	\$ (117,697)	\$ (117,697)	\$ -	\$ -	\$ -
6/30/2021		\$ -	\$ (101,364)	\$ (101,364)	\$ -	\$ (117,697)	\$ (117,697)	\$ -	\$ -	\$ -
6/30/2022		\$ -	\$ (101,364)	\$ (101,364)	\$ -	\$ (117,697)	\$ (117,697)	\$ -	\$ -	\$ -
6/30/2023		\$ -	\$ (101,364)	\$ (101,364)	\$ -	\$ (97,839)	\$ (97,839)	\$ -	\$ -	\$ -
6/30/2024		\$ -	\$ (90,752)	\$ (90,752)	\$ -	\$ (25,091)	\$ (25,091)	\$ -	\$ -	\$ -
6/30/2025		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2026		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2027		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total		\$ -	\$ (597,572)	\$ (597,572)	\$ -	\$ (593,718)	\$ (593,718)	\$ -	\$ -	\$ -
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End										
6/30/2018				\$ (597,572)			\$ (75,520)			\$ -

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 BARGAINING UNIT NUMBER 5 HIGHWAY PATROL		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	7,745	7,461
Retired Participants ^a	<u>6,365</u>	<u>6,598</u>
Total Participants	14,110	14,059
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 1,690,857	\$ 1,812,674
Retired Participants	<u>1,717,240</u>	<u>1,836,283</u>
Total Participants	\$ 3,408,097	\$ 3,648,957
Actuarial Accrued Liability		
Active Participants	\$ 1,078,627	\$ 1,127,761
Retired Participants	<u>1,717,240</u>	<u>1,836,283</u>
Total Participants	\$ 2,795,867	\$ 2,964,044
Actuarial Value of Assets	\$ 246,662	\$ 331,292
Unfunded Actuarial Accrued Liability	\$ 2,549,205	\$ 2,632,752
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 59,841	\$ 63,151
Administrative Expenses	299	269
Amortization of UAAL	<u>144,221</u>	<u>151,270</u>
Total ADC	\$ 204,361	\$ 214,690
Estimated Member Contributions	<u>(14,650)</u>	<u>(4,065)</u>
Net Employer ADC	\$ 189,711	\$ 210,625
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 75,217	\$ 80,294
Part B Reimbursement	6,686	8,154
Dental Claims	<u>4,577</u>	<u>4,665</u>
Total	\$ 86,480	\$ 93,113
Employer Implicit Costs	<u>13,519</u>	<u>14,525</u>
Total Employer Costs	\$ 99,999	\$ 107,638
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 1,373	\$ 2,443
Dental Claims	<u>1,459</u>	<u>1,488</u>
Total	\$ 2,832	\$ 3,931
Total Claims Costs	\$ 102,831	\$ 111,569

^aRetired participants with dental only coverage, 60 as of July 1, 2017, and 65 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING PROJECTIONS BASED ON JULY 1, 2018, ACTUARIAL VALUATION (\$ IN 000'S) BARGAINING UNIT NUMBER 5 HIGHWAY PATROL									
Fiscal Year Beginning		7/1/2018							
Long-term Asset Return		7.000%							
Discount Rate		7.000%							
Year Plan is Fully Funded		2045							
FYE	Assets (boy)	Disbursements/ Benefits	Administrative Expenses	Pre-Fund Contribution	Investment Income	Assets (eoy)	Accrued Liability (eoy)	Funded Ratio	Normal Cost
2018	\$ 246,662	\$ -	\$ 144	\$ 63,786	\$ 20,988	\$ 331,292	\$ 2,964,044	11.2%	\$ 63,151
2019	331,292	-	269	63,420	25,363	419,806	3,127,695	13.4%	63,875
2020	419,806	-	290	64,165	31,584	515,265	3,294,945	15.6%	64,443
2021	515,265	-	316	64,759	38,286	617,994	3,463,816	17.8%	64,727
2022	617,994	-	342	65,069	45,487	728,208	3,634,041	20.0%	64,585
2023	728,208	-	369	64,953	53,197	845,989	3,804,825	22.2%	63,973
2024	845,989	-	398	64,371	61,420	971,382	3,974,808	24.4%	62,968
2025	971,382	-	428	63,396	70,163	1,104,513	4,143,350	26.7%	61,680
2026	1,104,513	-	457	62,137	79,438	1,245,631	4,310,253	28.9%	60,210
2027	1,245,631	-	485	60,695	89,266	1,395,107	4,475,649	31.2%	58,545
2028	1,395,107	-	515	59,059	99,672	1,553,323	4,638,570	33.5%	56,603
2029	1,553,323	-	546	57,149	110,680	1,720,606	4,797,665	35.9%	54,418
2030	1,720,606	-	580	54,997	122,315	1,897,338	4,951,854	38.3%	52,084
2031	1,897,338	-	613	52,697	134,606	2,084,028	5,100,581	40.9%	49,691
2032	2,084,028	-	647	50,339	147,592	2,281,312	5,242,866	43.5%	47,191
2033	2,281,312	-	682	47,873	161,316	2,489,819	5,378,013	46.3%	44,479
2034	2,489,819	-	718	45,197	175,818	2,710,116	5,505,012	49.2%	41,537
2035	2,710,116	-	754	42,292	191,138	2,942,792	5,622,587	52.3%	38,273
2036	2,942,792	-	792	39,064	207,312	3,188,376	5,729,411	55.6%	34,712
2037	3,188,376	-	829	35,541	224,381	3,447,469	5,824,412	59.2%	31,036
2038	3,447,469	-	867	31,903	242,391	3,720,896	5,906,468	63.0%	27,535
2039	3,720,896	-	903	28,438	261,410	4,009,841	5,975,524	67.1%	24,401
2040	4,009,841	-	938	25,339	281,529	4,315,771	6,031,917	71.5%	21,549
2041	4,315,771	-	971	22,520	302,846	4,640,166	6,075,427	76.4%	18,845
2042	4,640,166	-	1,003	19,848	325,460	4,984,471	6,105,721	81.6%	16,132
2043	4,984,471	-	1,035	17,166	349,468	5,350,070	6,122,192	87.4%	13,390
2044	5,350,070	-	1,066	14,455	374,966	5,738,425	6,123,956	93.7%	10,655
2045	5,738,425	3,071	1,097	11,751	401,951	6,147,959	6,110,199	100.6%	8,049
2046	6,147,959	450,247	1,126	-	414,827	6,111,413	6,080,709	100.5%	5,785
2047	6,111,413	460,780	1,152	-	411,905	6,061,386	6,035,839	100.4%	4,006
2048	6,061,386	469,463	1,174	-	408,104	5,998,853	5,976,947	100.4%	2,708
2049	5,998,853	476,197	1,190	-	403,494	5,924,960	5,905,580	100.3%	1,788
2050	5,924,960	481,731	1,204	-	398,131	5,840,156	5,822,511	100.3%	1,152
2051	5,840,156	485,764	1,214	-	392,055	5,745,233	5,728,779	100.3%	730
2052	5,745,233	487,961	1,220	-	385,335	5,641,387	5,625,766	100.3%	463
2053	5,641,387	489,566	1,224	-	378,010	5,528,607	5,513,599	100.3%	297
2054	5,528,607	490,906	1,227	-	370,069	5,406,543	5,392,020	100.3%	195
2055	5,406,543	491,173	1,228	-	361,516	5,275,658	5,261,549	100.3%	134
2056	5,275,658	490,322	1,226	-	352,383	5,136,493	5,122,764	100.3%	96

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM
DEVELOPMENT OF GASB NOS. 74 AND 75 SINGLE EQUIVALENT DISCOUNT RATE, (\$ IN 000'S)
BARGAINING UNIT NUMBER 5
HIGHWAY PATROL

20-Year GO Municipal Bond Rate at June 30, 2018 **3.620%**
Long-Term Investment Return **7.000%**
Year Plan is Fully Funded **2045**
Single Equivalent Rate **4.282%**

Present Value of Benefits \$ **6,431,810** \$ **6,431,810**

FYE	Net Employer Benefits	Cross-over Investment Return	Discount Factor	Discounted Benefit Payment	Single Equivalent Return	Discount Factor	Discounted Benefit Payment
2019	\$ 107,638	3.620%	0.98238	\$ 105,741	4.282%	0.97926	\$ 105,405
2020	115,975	3.620%	0.94806	109,951	4.282%	0.93905	108,906
2021	126,314	3.620%	0.91494	115,569	4.282%	0.90049	113,745
2022	136,722	3.620%	0.88297	120,722	4.282%	0.86352	118,062
2023	147,550	3.620%	0.85213	125,731	4.282%	0.82806	122,181
2024	159,247	3.620%	0.82236	130,958	4.282%	0.79406	126,452
2025	171,102	3.620%	0.79363	135,791	4.282%	0.76146	130,286
2026	182,757	3.620%	0.76590	139,974	4.282%	0.73019	133,448
2027	193,988	3.620%	0.73914	143,385	4.282%	0.70021	135,832
2028	205,849	3.620%	0.71332	146,837	4.282%	0.67146	138,220
2029	218,562	3.620%	0.68840	150,458	4.282%	0.64389	140,730
2030	231,813	3.620%	0.66435	154,006	4.282%	0.61745	143,134
2031	245,112	3.620%	0.64114	157,152	4.282%	0.59210	145,131
2032	258,929	3.620%	0.61874	160,211	4.282%	0.56779	147,017
2033	272,870	3.620%	0.59713	162,939	4.282%	0.54448	148,571
2034	287,089	3.620%	0.57627	165,440	4.282%	0.52212	149,895
2035	301,751	3.620%	0.55614	167,814	4.282%	0.50068	151,081
2036	316,722	3.620%	0.53671	169,987	4.282%	0.48012	152,066
2037	331,698	3.620%	0.51796	171,805	4.282%	0.46041	152,717
2038	346,839	3.620%	0.49986	173,372	4.282%	0.44151	153,132
2039	361,338	3.620%	0.48240	174,309	4.282%	0.42338	152,983
2040	375,013	3.620%	0.46555	174,586	4.282%	0.40599	152,253
2041	388,334	3.620%	0.44928	174,472	4.282%	0.38932	151,188
2042	401,259	3.620%	0.43359	173,980	4.282%	0.37334	149,805
2043	413,867	3.620%	0.41844	173,178	4.282%	0.35801	148,168
2044	426,365	3.620%	0.40382	172,175	4.282%	0.34331	146,375
2045	438,662	3.620%	0.38971	170,952	4.282%	0.32921	144,413
2046	450,247	7.000%	0.36422	163,988	4.282%	0.31570	142,141
2047	460,780	7.000%	0.34039	156,845	4.282%	0.30273	139,494
2048	469,463	7.000%	0.31812	149,346	4.282%	0.29030	136,287
2049	476,197	7.000%	0.29731	141,578	4.282%	0.27838	132,566
2050	481,731	7.000%	0.27786	133,854	4.282%	0.26695	128,600
2051	485,764	7.000%	0.25968	126,144	4.282%	0.25599	124,352
2052	487,961	7.000%	0.24269	118,425	4.282%	0.24548	119,785
2053	489,566	7.000%	0.22682	111,042	4.282%	0.23540	115,245
2054	490,906	7.000%	0.21198	104,061	4.282%	0.22574	110,816
2055	491,173	7.000%	0.19811	97,306	4.282%	0.21647	106,323
2065	443,528	7.000%	0.10071	44,667	4.282%	0.14233	63,129
2075	292,362	7.000%	0.05120	14,968	4.282%	0.09359	27,362
2085	105,450	7.000%	0.02603	2,744	4.282%	0.06154	6,489
2095	12,769	7.000%	0.01323	169	4.282%	0.04046	517
2105	185	7.000%	0.00673	1	4.282%	0.02661	5
2115	-	7.000%	0.00342	-	4.282%	0.01749	-

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER BARGAINING UNIT NUMBER 5 HIGHWAY PATROL		
Fiscal Year Ending	June 30, 2017	June 30, 2018
Total OPEB Liability		
Service Cost	\$ 168,057	\$ 146,042
Interest on Total OPEB Liability	179,397	195,713
Changes of Benefit Terms	-	-
Difference between Expected and Actual Experience	-	(86,558)
Changes of Assumptions	(474,646)	(137,150)
Benefit Payments	(95,517)	(99,610)
Net Change in Total OPEB Liability	\$ (222,709)	\$ 18,437
Total OPEB Liability - Beginning	\$ 4,764,812	\$ 4,542,103
Total OPEB Liability - Ending (a)	\$ 4,542,103	\$ 4,560,540
Plan Fiduciary Net Position		
Employer PayGO Contributions	\$ 95,517	\$ 99,610
Employer Pre Funding Contributions	77,454	59,697
Active Member Contributions	12,783	4,089
Net Investment Income	21,109	20,988
Benefit Payments	(95,517)	(99,610)
Administrative Expense	(95)	(144)
Other	(290)	-
Net Change in Plan Fiduciary Net Position	\$ 110,961	\$ 84,630
Plan Fiduciary Net Position - Beginning	\$ 135,701	\$ 246,662
Plan Fiduciary Net Position - Ending (b)	\$ 246,662	\$ 331,292
Net OPEB Liability - Ending (a) - (b)	\$ 4,295,441	\$ 4,229,248
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	5.431%	7.264%
Actuarially Determined Contribution (ADC)	\$ 185,626	\$ 200,272
Employer Contribution	\$ 172,971	\$ 159,307
Percentage of ADC made by Employer	93%	80%
Contribution Excess/(Shortfall)	\$ (12,655)	\$ (40,965)
Expected Return on Assets	\$ 13,649	\$ 20,233
Investment (Gain)/Loss	\$ (7,460)	\$ (755)
Average Expected Remaining Service	6.861227	6.957379
Blended Discount Rate Beginning of Year	3.672%	4.219%
Blended Discount Rate End of Year	4.219%	4.282%
Long-term Expected Return on Assets	7.280%	7.000%

Individual Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) BARGAINING UNIT NUMBER 5 HIGHWAY PATROL			
Measured for the Plan's Fiscal Year Ending	June 30, 2017	June 30, 2018	June 30, 2018
Applicable for the Sponsor's Fiscal Year Ending	June 30, 2018	June 30, 2018	June 30, 2019
OPEB Expense			
Service Cost	\$ 168,057	\$ 146,042	
Interest on the Total OPEB Liability	179,397	195,713	
Current-Period Benefit Changes	-	-	
Active Member Contributions	(12,783)	(4,089)	
Projected Earnings on Plan Investments	(13,649)	(20,233)	
Operating Expenses	95	144	
Other Changes in Plan Fiduciary Net Position	290	-	
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(12,441)	
Recognition of Outflow/(Inflow) due to Assumption Changes	(69,178)	(88,891)	
Recognition of Outflow/(Inflow) due to Investment Experience	(1,492)	(1,643)	
Net OPEB Expense	\$ 250,737	\$ 214,602	
Reconciliation of Net OPEB Liability			
Net OPEB Liability beginning of year	\$ 4,629,111	\$ 4,295,441	
OPEB Expense	250,737	214,602	
Employer Contributions	(172,971)	(159,307)	
Change in Outflow/(Inflow) due to Non-investment Experience	-	(74,117)	
Change in Outflow/(Inflow) due to Assumption Changes	(405,468)	(48,259)	
Change in Outflow/(Inflow) due to Investment Experience	(5,968)	888	
Net OPEB Liability End of year	\$ 4,295,441	\$ 4,229,248	
Deferred (Inflows)			
Non-investment Experience	\$ -	\$ (74,117)	
Assumption Changes	\$ (405,468)	\$ (453,727)	
Investment Experience	\$ (5,968)	\$ (5,080)	
Deferred Outflows			
Non-investment Experience	\$ -	\$ -	
Assumption Changes	\$ -	\$ -	
Investment Experience	\$ -	\$ -	
Net OPEB Liability Sensitivity			
Baseline Discount Rate	4.219%	4.282%	
Baseline Discount Rate and 4.5% Ultimate Trend	\$ 4,295,441	\$ 4,229,248	
Increase Discount Rate by One Percentage Point	\$ 3,580,665	\$ 3,519,534	
Decrease Discount Rate by One Percentage Point	\$ 5,218,068	\$ 5,144,023	
Increase Trend Rate by One Percentage Point	\$ 5,281,792	\$ 5,084,616	
Decrease Trend Rate by One Percentage Point	\$ 3,541,740	\$ 3,572,416	

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES DEFERRED INFLOWS AND OUTFLOWS BARGAINING UNIT NUMBER 5 HIGHWAY PATROL									
Valuation Date		6/30/2018							
Measurement Date		6/30/2018							
	Non-Investment Experience			Assumption Changes			Investment Experience		
	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization
Plan Year Beginning									
7/1/2016	\$ -	6.861227	\$ -	\$ (474,646)	6.861227	\$ (69,178)	\$ (7,460)	5.000000	\$ (1,492)
7/1/2017	\$ (86,558)	6.957379	\$ (12,441)	\$ (137,150)	6.957379	\$ (19,713)	\$ (755)	5.000000	\$ (151)
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Current Plan Year End	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2018	\$ -	\$ (12,441)	\$ (12,441)	\$ -	\$ (88,891)	\$ (88,891)	\$ -	\$ (1,643)	\$ (1,643)
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Future Plan Years Ending									
6/30/2019	\$ -	\$ (12,441)	\$ (12,441)	\$ -	\$ (88,891)	\$ (88,891)	\$ -	\$ (1,643)	\$ (1,643)
6/30/2020	\$ -	\$ (12,441)	\$ (12,441)	\$ -	\$ (88,891)	\$ (88,891)	\$ -	\$ (1,643)	\$ (1,643)
6/30/2021	\$ -	\$ (12,441)	\$ (12,441)	\$ -	\$ (88,891)	\$ (88,891)	\$ -	\$ (1,643)	\$ (1,643)
6/30/2022	\$ -	\$ (12,441)	\$ (12,441)	\$ -	\$ (88,891)	\$ (88,891)	\$ -	\$ (151)	\$ (151)
6/30/2023	\$ -	\$ (12,441)	\$ (12,441)	\$ -	\$ (79,291)	\$ (79,291)	\$ -	\$ -	\$ -
6/30/2024	\$ -	\$ (11,912)	\$ (11,912)	\$ -	\$ (18,872)	\$ (18,872)	\$ -	\$ -	\$ -
6/30/2025	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ (74,117)	\$ (74,117)	\$ -	\$ (453,727)	\$ (453,727)	\$ -	\$ (5,080)	\$ (5,080)
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2018			\$ (74,117)			\$ (48,259)			\$ 888

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 BARGAINING UNIT NUMBER 6 CORRECTIONS		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	31,408	31,154
Retired Participants ^a	<u>22,646</u>	<u>23,707</u>
Total Participants	54,054	54,861
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 5,777,456	\$ 5,918,469
Retired Participants	<u>5,654,096</u>	<u>5,771,160</u>
Total Participants	\$ 11,431,552	\$ 11,689,629
Actuarial Accrued Liability		
Active Participants	\$ 3,642,505	\$ 3,693,008
Retired Participants	<u>5,654,096</u>	<u>5,771,160</u>
Total Participants	\$ 9,296,601	\$ 9,464,168
Actuarial Value of Assets	\$ 185,155	\$ 332,752
Unfunded Actuarial Accrued Liability	\$ 9,111,446	\$ 9,131,416
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 227,389	\$ 233,685
Administrative Expenses	889	875
Amortization of UAAL	<u>515,479</u>	<u>524,662</u>
Total ADC	\$ 743,757	\$ 759,222
Estimated Member Contributions	<u>(57,069)</u>	<u>(87,960)</u>
Net Employer ADC	\$ 686,688	\$ 671,262
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 272,245	\$ 279,631
Part B Reimbursement	15,444	19,551
Dental Claims	<u>15,138</u>	<u>15,674</u>
Total	\$ 302,827	\$ 314,856
Employer Implicit Costs	<u>37,777</u>	<u>35,061</u>
Total Employer Costs	\$ 340,604	\$ 349,917
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 11,118	\$ 19,052
Dental Claims	<u>4,750</u>	<u>4,925</u>
Total	\$ 15,868	\$ 23,977
Total Claims Costs	\$ 356,472	\$ 373,894

^aRetired participants with dental only coverage, 1,226 as of July 1, 2017, and 1,265 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING PROJECTIONS BASED ON JULY 1, 2018, ACTUARIAL VALUATION (\$ IN 000'S) BARGAINING UNIT NUMBER 6 CORRECTIONS									
Fiscal Year Beginning		7/1/2018							
Long-term Asset Return		7.000%							
Discount Rate		7.000%							
Year Plan is Fully Funded		2047							
FYE	Assets (bo)	Disbursements/ Benefits	Administrative Expenses	Pre-Fund Contribution	Investment Income	Assets (eo)	Accrued Liability (eo)	Funded Ratio	Normal Cost
2018	\$ 185,155	\$ -	\$ 128	\$ 130,490	\$ 17,235	\$ 332,752	\$ 9,464,168	3.5%	\$ 233,685
2019	332,752	-	875	175,920	29,316	537,113	10,014,552	5.4%	230,541
2020	537,113	-	952	231,492	45,530	813,183	10,568,287	7.7%	226,694
2021	813,183	-	1,056	227,749	64,723	1,104,599	11,113,677	9.9%	222,080
2022	1,104,599	-	1,161	223,241	84,963	1,411,642	11,648,561	12.1%	216,572
2023	1,411,642	-	1,270	217,842	106,267	1,734,481	12,169,927	14.3%	210,217
2024	1,734,481	-	1,380	211,597	128,647	2,073,345	12,675,426	16.4%	203,337
2025	2,073,345	-	1,487	204,824	152,131	2,428,813	13,164,819	18.4%	195,951
2026	2,428,813	-	1,587	197,538	176,759	2,801,523	13,639,179	20.5%	188,048
2027	2,801,523	-	1,682	189,731	202,577	3,192,149	14,098,859	22.6%	179,592
2028	3,192,149	-	1,779	181,371	229,630	3,601,371	14,541,472	24.8%	170,771
2029	3,601,371	-	1,878	172,649	257,972	4,030,114	14,964,682	26.9%	161,866
2030	4,030,114	-	1,979	163,845	287,677	4,479,657	15,366,390	29.2%	152,882
2031	4,479,657	-	2,084	154,965	318,836	4,951,374	15,743,246	31.5%	143,818
2032	4,951,374	-	2,192	146,011	351,545	5,446,738	16,091,800	33.8%	134,736
2033	5,446,738	-	2,301	137,037	385,908	5,967,382	16,409,930	36.4%	125,712
2034	5,967,382	-	2,412	128,123	422,042	6,515,135	16,694,975	39.0%	116,620
2035	6,515,135	-	2,518	119,138	460,072	7,091,827	16,946,234	41.8%	107,411
2036	7,091,827	-	2,623	110,034	500,124	7,699,362	17,161,881	44.9%	98,461
2037	7,699,362	-	2,724	101,185	542,343	8,340,166	17,341,376	48.1%	90,122
2038	8,340,166	-	2,818	92,940	586,913	9,017,201	17,485,273	51.6%	82,269
2039	9,017,201	-	2,908	85,177	634,035	9,733,505	17,593,644	55.3%	74,631
2040	9,733,505	-	2,995	77,625	683,913	10,492,048	17,665,651	59.4%	66,841
2041	10,492,048	-	3,081	69,922	736,743	11,295,632	17,698,759	63.8%	58,608
2042	11,295,632	-	3,165	61,773	792,711	12,146,951	17,690,628	68.7%	49,880
2043	12,146,951	-	3,247	53,127	852,003	13,048,834	17,638,510	74.0%	40,850
2044	13,048,834	-	3,332	44,182	914,824	14,004,508	17,537,982	79.9%	32,081
2045	14,004,508	-	3,411	35,492	981,420	15,018,009	17,388,314	86.4%	24,216
2046	15,018,009	-	3,478	27,694	1,052,094	16,094,319	17,191,950	93.6%	17,595
2047	16,094,319	207,815	3,534	21,129	1,120,057	17,024,156	16,951,612	100.4%	12,326
2048	17,024,156	1,430,969	3,577	-	1,142,331	16,731,941	16,670,967	100.4%	8,354
2049	16,731,941	1,442,522	3,606	-	1,121,478	16,407,291	16,354,486	100.3%	5,503
2050	16,407,291	1,447,318	3,618	-	1,098,587	16,054,942	16,007,849	100.3%	3,537
2051	16,054,942	1,447,599	3,619	-	1,073,912	15,677,636	15,634,565	100.3%	2,223
2052	15,677,636	1,444,416	3,611	-	1,047,611	15,277,220	15,237,047	100.3%	1,368
2053	15,277,220	1,436,524	3,591	-	1,019,854	14,856,959	14,818,964	100.3%	823
2054	14,856,959	1,424,086	3,560	-	990,865	14,420,178	14,383,909	100.3%	483
2055	14,420,178	1,406,396	3,516	-	960,900	13,971,166	13,936,348	100.2%	276
2056	13,971,166	1,383,784	3,459	-	930,249	13,514,172	13,480,639	100.2%	154

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM
DEVELOPMENT OF GASB NOS. 74 AND 75 SINGLE EQUIVALENT DISCOUNT RATE, (\$ IN 000'S)
BARGAINING UNIT NUMBER 6
CORRECTIONS

20-Year GO Municipal Bond Rate at June 30, 2018 **3.620%**
Long-Term Investment Return **7.000%**
Year Plan is Fully Funded **2047**
Single Equivalent Rate **4.133%**

Present Value of Benefits **\$ 20,657,659**

\$ 20,657,659

FYE	Net Employer Benefits	Cross-over Investment Return	Discount Factor	Discounted Benefit Payment	Single Equivalent Return	Discount Factor	Discounted Benefit Payment
2019	\$ 349,917	3.620%	0.98238	\$ 343,751	4.133%	0.97995	\$ 342,902
2020	380,651	3.620%	0.94806	360,879	4.133%	0.94106	358,213
2021	422,209	3.620%	0.91494	386,294	4.133%	0.90370	381,551
2022	464,483	3.620%	0.88297	410,126	4.133%	0.86783	403,093
2023	508,048	3.620%	0.85213	432,921	4.133%	0.83339	423,400
2024	552,083	3.620%	0.82236	454,009	4.133%	0.80031	441,835
2025	594,732	3.620%	0.79363	471,996	4.133%	0.76854	457,075
2026	634,751	3.620%	0.76590	486,157	4.133%	0.73803	468,468
2027	672,862	3.620%	0.73914	497,342	4.133%	0.70874	476,884
2028	711,720	3.620%	0.71332	507,686	4.133%	0.68061	484,402
2029	751,319	3.620%	0.68840	517,210	4.133%	0.65359	491,056
2030	791,513	3.620%	0.66435	525,844	4.133%	0.62765	496,793
2031	833,439	3.620%	0.64114	534,354	4.133%	0.60274	502,344
2032	876,918	3.620%	0.61874	542,588	4.133%	0.57881	507,571
2033	920,527	3.620%	0.59713	549,673	4.133%	0.55584	511,663
2034	964,704	3.620%	0.57627	555,928	4.133%	0.53377	514,935
2035	1,007,244	3.620%	0.55614	560,164	4.133%	0.51259	516,301
2036	1,049,144	3.620%	0.53671	563,083	4.133%	0.49224	516,432
2037	1,089,432	3.620%	0.51796	564,279	4.133%	0.47270	514,978
2038	1,127,362	3.620%	0.49986	563,525	4.133%	0.45394	511,755
2039	1,163,324	3.620%	0.48240	561,187	4.133%	0.43592	507,119
2040	1,197,908	3.620%	0.46555	557,682	4.133%	0.41862	501,467
2041	1,232,331	3.620%	0.44928	553,664	4.133%	0.40200	495,400
2042	1,265,925	3.620%	0.43359	548,888	4.133%	0.38605	488,706
2043	1,298,870	3.620%	0.41844	543,498	4.133%	0.37072	481,521
2044	1,332,806	3.620%	0.40382	538,215	4.133%	0.35601	474,490
2045	1,364,445	3.620%	0.38971	531,742	4.133%	0.34188	466,473
2046	1,391,330	3.620%	0.37610	523,277	4.133%	0.32831	456,783
2047	1,413,709	3.620%	0.36296	513,119	4.133%	0.31528	445,708
2048	1,430,969	7.000%	0.33921	485,405	4.133%	0.30276	433,242
2049	1,442,522	7.000%	0.31702	457,312	4.133%	0.29074	419,405
2050	1,447,318	7.000%	0.29628	428,816	4.133%	0.27920	404,096
2051	1,447,599	7.000%	0.27690	400,840	4.133%	0.26812	388,132
2052	1,444,416	7.000%	0.25878	373,793	4.133%	0.25748	371,906
2053	1,436,524	7.000%	0.24186	347,431	4.133%	0.24726	355,193
2054	1,424,086	7.000%	0.22603	321,890	4.133%	0.23744	338,141
2055	1,406,396	7.000%	0.21125	297,095	4.133%	0.22802	320,686
2065	1,146,891	7.000%	0.10739	123,161	4.133%	0.15208	174,420
2075	746,630	7.000%	0.05459	40,758	4.133%	0.10143	75,732
2085	277,101	7.000%	0.02775	7,690	4.133%	0.06765	18,746
2095	31,973	7.000%	0.01411	451	4.133%	0.04512	1,443
2105	557	7.000%	0.00717	4	4.133%	0.03009	17
2115	11	7.000%	0.00365	-	4.133%	0.02007	-

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER BARGAINING UNIT NUMBER 6 CORRECTIONS		
Fiscal Year Ending	June 30, 2017	June 30, 2018
Total OPEB Liability		
Service Cost	\$ 609,551	\$ 531,916
Interest on Total OPEB Liability	574,853	634,360
Changes of Benefit Terms	-	-
Difference between Expected and Actual Experience	-	(1,165,994)
Changes of Assumptions	(1,637,897)	(164,236)
Benefit Payments	(325,344)	(348,140)
Net Change in Total OPEB Liability	\$ (778,837)	\$ (512,094)
Total OPEB Liability - Beginning	\$ 15,990,189	\$ 15,211,352
Total OPEB Liability - Ending (a)	\$ 15,211,352	\$ 14,699,258
Plan Fiduciary Net Position		
Employer PayGO Contributions	\$ 325,344	\$ 348,140
Employer Pre Funding Contributions	146,933	65,245
Active Member Contributions	23,181	65,245
Net Investment Income	15,089	17,235
Benefit Payments	(325,344)	(348,140)
Administrative Expense	(48)	(128)
Other	-	-
Net Change in Plan Fiduciary Net Position	\$ 185,155	\$ 147,597
Plan Fiduciary Net Position - Beginning	\$ -	\$ 185,155
Plan Fiduciary Net Position - Ending (b)	\$ 185,155	\$ 332,752
Net OPEB Liability - Ending (a) - (b)	\$ 15,026,197	\$ 14,366,506
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	1.217%	2.264%
Actuarially Determined Contribution (ADC)	\$ 698,913	\$ 678,512
Employer Contribution	\$ 472,277	\$ 413,385
Percentage of ADC made by Employer	68%	61%
Contribution Excess/(Shortfall)	\$ (226,636)	\$ (265,127)
Expected Return on Assets	\$ 7,907	\$ 18,141
Investment (Gain)/Loss	\$ (7,182)	\$ 906
Average Expected Remaining Service	6.570241	6.456823
Blended Discount Rate Beginning of Year	3.497%	4.074%
Blended Discount Rate End of Year	4.074%	4.133%
Long-term Expected Return on Assets	7.280%	7.000%

Individual Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) BARGAINING UNIT NUMBER 6 CORRECTIONS		
Measured for the Plan's Fiscal Year Ending Applicable for the Sponsor's Fiscal Year Ending	June 30, 2017 June 30, 2018	June 30, 2018 June 30, 2019
OPEB Expense		
Service Cost	\$ 609,551	\$ 531,916
Interest on the Total OPEB Liability	574,853	634,360
Current-Period Benefit Changes	-	-
Active Member Contributions	(23,181)	(65,245)
Projected Earnings on Plan Investments	(7,907)	(18,141)
Operating Expenses	48	128
Other Changes in Plan Fiduciary Net Position	-	-
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(180,583)
Recognition of Outflow/(Inflow) due to Assumption Changes	(249,290)	(274,726)
Recognition of Outflow/(Inflow) due to Investment Experience	(1,437)	(1,255)
Net OPEB Expense	\$ 902,637	\$ 626,454
Reconciliation of Net OPEB Liability		
Net OPEB Liability beginning of year	\$ 15,990,189	\$ 15,026,197
OPEB Expense	902,637	626,454
Employer Contributions	(472,277)	(413,385)
Change in Outflow/(Inflow) due to Non-investment Experience	-	(985,411)
Change in Outflow/(Inflow) due to Assumption Changes	(1,388,607)	110,490
Change in Outflow/(Inflow) due to Investment Experience	(5,745)	2,161
Net OPEB Liability End of year	\$ 15,026,197	\$ 14,366,506
Deferred (Inflows)		
Non-investment Experience	\$ -	\$ (985,411)
Assumption Changes	\$ (1,388,607)	\$ (1,278,117)
Investment Experience	\$ (5,745)	\$ (4,310)
Deferred Outflows		
Non-investment Experience	\$ -	\$ -
Assumption Changes	\$ -	\$ -
Investment Experience	\$ -	\$ 725
Net OPEB Liability Sensitivity		
Baseline Discount Rate	4.074%	4.133%
Baseline Discount Rate and 4.5% Ultimate Trend	\$ 15,026,197	\$ 14,366,506
Increase Discount Rate by One Percentage Point	\$ 12,689,574	\$ 12,132,067
Decrease Discount Rate by One Percentage Point	\$ 18,029,523	\$ 17,237,517
Increase Trend Rate by One Percentage Point	\$ 18,237,804	\$ 16,959,344
Decrease Trend Rate by One Percentage Point	\$ 12,553,881	\$ 12,356,587

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES DEFERRED INFLOWS AND OUTFLOWS BARGAINING UNIT NUMBER 6 CORRECTIONS									
Valuation Date	6/30/2018								
Measurement Date	6/30/2018								
	Non-Investment Experience			Assumption Changes			Investment Experience		
	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization
Plan Year Beginning									
7/1/2016	\$ -	6.570241	\$ -	\$ (1,637,897)	6.570241	\$ (249,290)	\$ (7,182)	\$ 5.000000	\$ (1,436)
7/1/2017	\$ (1,165,994)	6.456823	\$ (180,583)	\$ (164,236)	6.456823	\$ (25,436)	\$ 906	5.000000	\$ 181
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Current Plan Year End	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2018	\$ -	\$ (180,583)	\$ (180,583)	\$ -	\$ (274,726)	\$ (274,726)	\$ 181	\$ (1,436)	\$ (1,255)
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Future Plan Years Ending									
6/30/2019	\$ -	\$ (180,583)	\$ (180,583)	\$ -	\$ (274,726)	\$ (274,726)	\$ 181	\$ (1,436)	\$ (1,255)
6/30/2020	\$ -	\$ (180,583)	\$ (180,583)	\$ -	\$ (274,726)	\$ (274,726)	\$ 181	\$ (1,436)	\$ (1,255)
6/30/2021	\$ -	\$ (180,583)	\$ (180,583)	\$ -	\$ (274,726)	\$ (274,726)	\$ 181	\$ (1,438)	\$ (1,257)
6/30/2022	\$ -	\$ (180,583)	\$ (180,583)	\$ -	\$ (274,726)	\$ (274,726)	\$ 182	\$ -	\$ 182
6/30/2023	\$ -	\$ (180,583)	\$ (180,583)	\$ -	\$ (167,593)	\$ (167,593)	\$ -	\$ -	\$ -
6/30/2024	\$ -	\$ (82,496)	\$ (82,496)	\$ -	\$ (11,620)	\$ (11,620)	\$ -	\$ -	\$ -
6/30/2025	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ (985,411)	\$ (985,411)	\$ -	\$ (1,278,117)	\$ (1,278,117)	\$ 725	\$ (4,310)	\$ (3,585)
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2018			\$ (985,411)			\$ 110,490			\$ 2,161

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 BARGAINING UNIT NUMBER 7 PROTECTIVE SERVICES AND PUBLIC SAFETY		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	7,590	7,574
Retired Participants ^a	<u>5,598</u>	<u>5,854</u>
Total Participants	13,188	13,428
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 1,186,276	\$ 1,218,293
Retired Participants	<u>1,110,147</u>	<u>1,136,544</u>
Total Participants	\$ 2,296,423	\$ 2,354,837
Actuarial Accrued Liability		
Active Participants	\$ 805,917	\$ 793,401
Retired Participants	<u>1,110,147</u>	<u>1,136,544</u>
Total Participants	\$ 1,916,064	\$ 1,929,945
Actuarial Value of Assets	\$ -	\$ 41,695
Unfunded Actuarial Accrued Liability	\$ 1,916,064	\$ 1,888,250
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 44,113	\$ 46,225
Administrative Expenses	183	189
Amortization of UAAL	<u>108,401</u>	<u>108,493</u>
Total ADC	\$ 152,697	\$ 154,907
Estimated Member Contributions	<u>(5,537)</u>	<u>(11,603)</u>
Net Employer ADC	\$ 147,160	\$ 143,304
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 53,465	\$ 53,979
Part B Reimbursement	6,585	8,184
Dental Claims	<u>3,691</u>	<u>3,772</u>
Total	\$ 63,741	\$ 65,935
Employer Implicit Costs	<u>9,619</u>	<u>9,528</u>
Total Employer Costs	\$ 73,360	\$ 75,463
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 2,056	\$ 4,081
Dental Claims	<u>1,159</u>	<u>1,185</u>
Total	\$ 3,215	\$ 5,266
Total Claims Costs	\$ 76,575	\$ 80,729

^aRetired participants with dental only coverage, 366 as of July 1, 2017, and 372 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING PROJECTIONS BASED ON JULY 1, 2018, ACTUARIAL VALUATION (\$ IN 000'S) BARGAINING UNIT NUMBER 7 PROTECTIVE SERVICES AND PUBLIC SAFETY									
Fiscal Year Beginning		7/1/2018							
Long-term Asset Return		7.000%							
Discount Rate		7.000%							
Year Plan is Fully Funded		2048							
FYE	Assets (boy)	Disbursements/ Benefits	Administrative Expenses	Pre-Fund Contribution	Investment Income	Assets (eoy)	Accrued Liability (eoy)	Funded Ratio	Normal Cost
2018	\$ 27,904	\$ -	\$ 17	\$ 11,432	\$ 2,376	\$ 41,695	\$ 1,929,945	2.2%	\$ 46,225
2019	41,695	-	189	23,207	3,711	68,424	2,036,400	3.4%	45,034
2020	68,424	-	205	33,929	5,950	108,098	2,142,362	5.0%	43,873
2021	108,098	-	226	44,099	9,077	161,048	2,245,536	7.2%	42,637
2022	161,048	-	249	42,885	12,740	216,424	2,345,465	9.2%	41,347
2023	216,424	-	270	41,617	16,572	274,343	2,442,029	11.2%	40,000
2024	274,343	-	292	40,292	20,580	334,923	2,534,881	13.2%	38,565
2025	334,923	-	313	38,879	24,772	398,261	2,623,834	15.2%	37,068
2026	398,261	-	334	37,402	29,154	464,483	2,709,121	17.1%	35,497
2027	464,483	-	352	35,849	33,735	533,715	2,790,931	19.1%	33,851
2028	533,715	-	372	34,222	38,525	606,090	2,868,704	21.1%	32,162
2029	606,090	-	391	32,553	43,533	681,785	2,941,942	23.2%	30,440
2030	681,785	-	411	30,851	48,772	760,997	3,010,246	25.3%	28,701
2031	760,997	-	432	29,133	54,258	843,956	3,072,871	27.5%	26,943
2032	843,956	-	453	27,396	60,004	930,903	3,129,394	29.7%	25,185
2033	930,903	-	473	25,658	66,030	1,022,118	3,179,492	32.1%	23,441
2034	1,022,118	-	494	23,935	72,355	1,117,914	3,222,863	34.7%	21,676
2035	1,117,914	-	514	22,190	79,000	1,218,590	3,259,025	37.4%	19,896
2036	1,218,590	-	533	20,429	85,986	1,324,472	3,287,755	40.3%	18,136
2037	1,324,472	-	552	18,688	93,337	1,435,945	3,308,863	43.4%	16,446
2038	1,435,945	-	569	17,015	101,082	1,553,473	3,322,394	46.8%	14,817
2039	1,553,473	-	585	15,403	109,253	1,677,544	3,328,535	50.4%	13,249
2040	1,677,544	-	601	13,850	117,884	1,808,677	3,327,093	54.4%	11,745
2041	1,808,677	-	615	12,360	127,012	1,947,434	3,318,094	58.7%	10,272
2042	1,947,434	-	627	10,899	136,674	2,094,380	3,301,888	63.4%	8,842
2043	2,094,380	-	639	9,481	146,911	2,250,133	3,278,057	68.6%	7,491
2044	2,250,133	-	650	8,141	157,767	2,415,391	3,246,374	74.4%	6,241
2045	2,415,391	-	659	6,900	169,292	2,590,924	3,207,538	80.8%	5,095
2046	2,590,924	-	666	5,761	181,540	2,777,559	3,161,733	87.8%	4,084
2047	2,777,559	-	671	4,755	194,570	2,976,213	3,109,726	95.7%	3,220
2048	2,976,213	116,083	673	3,893	204,452	3,067,802	3,052,216	100.5%	2,490
2049	3,067,802	269,796	674	-	205,440	3,002,772	2,989,423	100.4%	1,897
2050	3,002,772	269,021	673	-	200,915	2,933,993	2,922,405	100.4%	1,422
2051	2,933,993	267,430	669	-	196,155	2,862,049	2,851,835	100.4%	1,050
2052	2,862,049	265,699	664	-	191,179	2,786,865	2,777,720	100.3%	762
2053	2,786,865	263,233	658	-	186,001	2,708,975	2,700,662	100.3%	544
2054	2,708,975	260,286	651	-	180,650	2,628,688	2,621,027	100.3%	382
2055	2,628,688	257,064	643	-	175,141	2,546,122	2,538,979	100.3%	263
2056	2,546,122	253,114	633	-	169,498	2,461,873	2,455,149	100.3%	177

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM							
DEVELOPMENT OF GASB NOS. 74 AND 75 SINGLE EQUIVALENT DISCOUNT RATE, (\$ IN 000'S)							
BARGAINING UNIT NUMBER 7							
PROTECTIVE SERVICES AND PUBLIC SAFETY							
20-Year GO Municipal Bond Rate at June 30, 2018		3.620%					
Long-Term Investment Return		7.000%					
Year Plan is Fully Funded		2048					
Single Equivalent Rate		4.066%					
Present Value of Benefits		\$ 4,133,254			\$ 4,133,254		
FYE	Net Employer Benefits	Cross-over Investment Return	Discount Factor	Discounted Benefit Payment	Single Equivalent Return	Discount Factor	Discounted Benefit Payment
2019	\$ 75,463	3.620%	0.98238	\$ 74,133	4.066%	0.98027	\$ 73,974
2020	81,909	3.620%	0.94806	77,655	4.066%	0.94196	77,156
2021	90,572	3.620%	0.91494	82,868	4.066%	0.90515	81,982
2022	99,411	3.620%	0.88297	87,777	4.066%	0.86979	86,466
2023	108,092	3.620%	0.85213	92,108	4.066%	0.83580	90,343
2024	116,818	3.620%	0.82236	96,066	4.066%	0.80314	93,821
2025	125,387	3.620%	0.79363	99,510	4.066%	0.77175	96,768
2026	133,402	3.620%	0.76590	102,173	4.066%	0.74160	98,931
2027	140,908	3.620%	0.73914	104,152	4.066%	0.71262	100,414
2028	148,644	3.620%	0.71332	106,031	4.066%	0.68477	101,787
2029	156,544	3.620%	0.68840	107,765	4.066%	0.65802	103,008
2030	164,488	3.620%	0.66435	109,278	4.066%	0.63230	104,006
2031	172,802	3.620%	0.64114	110,791	4.066%	0.60759	104,994
2032	181,120	3.620%	0.61874	112,067	4.066%	0.58385	105,748
2033	189,338	3.620%	0.59713	113,059	4.066%	0.56104	106,226
2034	197,427	3.620%	0.57627	113,771	4.066%	0.53912	106,436
2035	205,506	3.620%	0.55614	114,289	4.066%	0.51805	106,462
2036	213,297	3.620%	0.53671	114,478	4.066%	0.49781	106,181
2037	220,789	3.620%	0.51796	114,359	4.066%	0.47835	105,615
2038	227,794	3.620%	0.49986	113,866	4.066%	0.45966	104,708
2039	234,172	3.620%	0.48240	112,964	4.066%	0.44170	103,434
2040	240,297	3.620%	0.46555	111,869	4.066%	0.42444	101,992
2041	245,951	3.620%	0.44928	110,501	4.066%	0.40785	100,312
2042	250,785	3.620%	0.43359	108,737	4.066%	0.39192	98,287
2043	255,584	3.620%	0.41844	106,946	4.066%	0.37660	96,254
2044	260,166	3.620%	0.40382	105,060	4.066%	0.36189	94,151
2045	263,646	3.620%	0.38971	102,746	4.066%	0.34775	91,682
2046	266,571	3.620%	0.37610	100,257	4.066%	0.33416	89,077
2047	268,423	3.620%	0.36296	97,427	4.066%	0.32110	86,191
2048	269,333	3.620%	0.35028	94,342	4.066%	0.30855	83,104
2049	269,796	7.000%	0.32736	88,321	4.066%	0.29650	79,993
2050	269,021	7.000%	0.30595	82,306	4.066%	0.28491	76,647
2051	267,430	7.000%	0.28593	76,467	4.066%	0.27378	73,216
2052	265,699	7.000%	0.26723	71,002	4.066%	0.26308	69,900
2053	263,233	7.000%	0.24974	65,741	4.066%	0.25280	66,545
2054	260,286	7.000%	0.23341	60,752	4.066%	0.24292	63,229
2055	257,064	7.000%	0.21814	56,075	4.066%	0.23343	60,006
2065	211,699	7.000%	0.11089	23,475	4.066%	0.15669	33,171
2075	131,527	7.000%	0.05637	7,414	4.066%	0.10518	13,834
2085	42,477	7.000%	0.02866	1,217	4.066%	0.07060	2,999
2095	4,011	7.000%	0.01457	58	4.066%	0.04739	190
2105	29	7.000%	0.00741	-	4.066%	0.03181	1
2115	-	7.000%	0.00376	-	4.066%	0.02136	

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER BARGAINING UNIT NUMBER 7 PROTECTIVE SERVICES AND PUBLIC SAFETY		
Fiscal Year Ending	June 30, 2017	June 30, 2018
Total OPEB Liability		
Service Cost	\$ 123,030	\$ 106,547
Interest on Total OPEB Liability	113,364	126,344
Changes of Benefit Terms	-	-
Difference between Expected and Actual Experience	-	(248,538)
Changes of Assumptions	(336,806)	(73,969)
Benefit Payments	(70,074)	(74,407)
Net Change in Total OPEB Liability	\$ (170,486)	\$ (164,023)
Total OPEB Liability - Beginning	\$ 3,301,789	\$ 3,131,303
Total OPEB Liability - Ending (a)	\$ 3,131,303	\$ 2,967,280
Plan Fiduciary Net Position		
Employer PayGO Contributions	\$ 70,074	\$ 74,407
Employer Pre Funding Contributions	-	5,716
Active Member Contributions	-	5,716
Net Investment Income	-	2,376
Benefit Payments	(70,074)	(74,407)
Administrative Expense	-	(17)
Other	-	-
Net Change in Plan Fiduciary Net Position	\$ -	\$ 13,791
Plan Fiduciary Net Position - Beginning	\$ -	\$ 27,904
Plan Fiduciary Net Position - Ending (b)	\$ -	\$ 41,695
Net OPEB Liability - Ending (a) - (b)	\$ 3,131,303	\$ 2,925,585
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	0.000%	1.405%
Actuarially Determined Contribution (ADC)	\$ 148,250	\$ 146,981
Employer Contribution	\$ 70,074	\$ 80,123
Percentage of ADC made by Employer	47%	55%
Contribution Excess/(Shortfall)	\$ (78,176)	\$ (66,858)
Expected Return on Assets	\$ -	\$ 2,440
Investment (Gain)/Loss	\$ -	\$ 64
Average Expected Remaining Service	6.124944	6.407090
Blended Discount Rate Beginning of Year	3.344%	3.947%
Blended Discount Rate End of Year	3.947%	4.066%
Long-term Expected Return on Assets	7.280%	7.000%

Individual Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) BARGAINING UNIT NUMBER 7 PROTECTIVE SERVICES AND PUBLIC SAFETY		
Measured for the Plan's Fiscal Year Ending	June 30, 2017	June 30, 2018
Applicable for the Sponsor's Fiscal Year Ending	June 30, 2018	June 30, 2019
OPEB Expense		
Service Cost	\$ 123,030	\$ 106,547
Interest on the Total OPEB Liability	113,364	126,344
Current-Period Benefit Changes	-	-
Active Member Contributions	-	(5,716)
Projected Earnings on Plan Investments	-	(2,440)
Operating Expenses	-	17
Other Changes in Plan Fiduciary Net Position	-	-
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(38,791)
Recognition of Outflow/(Inflow) due to Assumption Changes	(54,989)	(66,534)
Recognition of Outflow/(Inflow) due to Investment Experience	-	13
Net OPEB Expense	\$ 181,405	\$ 119,440
Reconciliation of Net OPEB Liability		
Net OPEB Liability beginning of year	\$ 3,301,789	\$ 3,103,399
OPEB Expense	181,405	119,440
Employer Contributions	(70,074)	(80,123)
Change in Outflow/(Inflow) due to Non-investment Experience	-	(209,747)
Change in Outflow/(Inflow) due to Assumption Changes	(281,817)	(7,435)
Change in Outflow/(Inflow) due to Investment Experience	-	51
Net OPEB Liability End of year	\$ 3,131,303	\$ 2,925,585
Deferred (Inflows)		
Non-investment Experience	\$ -	\$ (209,747)
Assumption Changes	\$ (281,817)	\$ (289,252)
Investment Experience	\$ -	\$ -
Deferred Outflows		
Non-investment Experience	\$ -	\$ -
Assumption Changes	\$ -	\$ -
Investment Experience	\$ -	\$ 51
Net OPEB Liability Sensitivity		
Baseline Discount Rate	3.947%	4.066%
Baseline Discount Rate and 4.5% Ultimate Trend	\$ 3,131,303	\$ 2,925,585
Increase Discount Rate by One Percentage Point	\$ 2,668,473	\$ 2,494,169
Decrease Discount Rate by One Percentage Point	\$ 3,718,491	\$ 3,472,238
Increase Trend Rate by One Percentage Point	\$ 3,767,330	\$ 3,423,507
Decrease Trend Rate by One Percentage Point	\$ 2,638,225	\$ 2,537,599

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES DEFERRED INFLOWS AND OUTFLOWS BARGAINING UNIT NUMBER 7 PROTECTIVE SERVICES AND PUBLIC SAFETY									
Valuation Date		6/30/2018							
Measurement Date		6/30/2018							
	Non-Investment Experience			Assumption Changes			Investment Experience		
	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization
Plan Year Beginning									
7/1/2016	\$ -	6.124944	\$ -	\$ (336,806)	6.124944	\$ (54,989)	\$ -	\$ 5.000000	\$ -
7/1/2017	\$ (248,538)	6.407090	\$ (38,791)	\$ (73,969)	6.407090	\$ (11,545)	\$ 64	5.000000	\$ 13
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Current Plan Year End	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2018	\$ -	\$ (38,791)	\$ (38,791)	\$ -	\$ (66,534)	\$ (66,534)	\$ 13	\$ -	\$ 13
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Future Plan Years Ending									
6/30/2019	\$ -	\$ (38,791)	\$ (38,791)	\$ -	\$ (66,534)	\$ (66,534)	\$ 13	\$ -	\$ 13
6/30/2020	\$ -	\$ (38,791)	\$ (38,791)	\$ -	\$ (66,534)	\$ (66,534)	\$ 13	\$ -	\$ 13
6/30/2021	\$ -	\$ (38,791)	\$ (38,791)	\$ -	\$ (66,534)	\$ (66,534)	\$ 13	\$ -	\$ 13
6/30/2022	\$ -	\$ (38,791)	\$ (38,791)	\$ -	\$ (66,534)	\$ (66,534)	\$ 12	\$ -	\$ 12
6/30/2023	\$ -	\$ (38,791)	\$ (38,791)	\$ -	\$ (18,417)	\$ (18,417)	\$ -	\$ -	\$ -
6/30/2024	\$ -	\$ (15,792)	\$ (15,792)	\$ -	\$ (4,699)	\$ (4,699)	\$ -	\$ -	\$ -
6/30/2025	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ (209,747)	\$ (209,747)	\$ -	\$ (289,252)	\$ (289,252)	\$ 51	\$ -	\$ 51
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2018			\$ (209,747)			\$ (7,435)			\$ 51

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 BARGAINING UNIT NUMBER 8 FIREFIGHTERS		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	6,770	6,552
Retired Participants ^a	<u>3,297</u>	<u>3,417</u>
Total Participants	10,067	9,969
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 1,044,880	\$ 1,080,832
Retired Participants	<u>831,424</u>	<u>846,455</u>
Total Participants	\$ 1,876,304	\$ 1,927,287
Actuarial Accrued Liability		
Active Participants	\$ 572,352	\$ 600,858
Retired Participants	<u>831,424</u>	<u>846,455</u>
Total Participants	\$ 1,403,776	\$ 1,447,313
Actuarial Value of Assets	\$ -	\$ 12,305
Unfunded Actuarial Accrued Liability	\$ 1,403,776	\$ 1,435,008
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 42,157	\$ 43,154
Administrative Expenses	128	130
Amortization of UAAL	<u>79,418</u>	<u>82,451</u>
Total ADC	\$ 121,703	\$ 125,735
Estimated Member Contributions	<u>(5,286)</u>	<u>(10,821)</u>
Net Employer ADC	\$ 116,417	\$ 114,914
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 38,245	\$ 38,565
Part B Reimbursement	3,446	4,339
Dental Claims	<u>2,310</u>	<u>2,345</u>
Total	\$ 44,001	\$ 45,249
Employer Implicit Costs	<u>7,374</u>	<u>6,811</u>
Total Employer Costs	\$ 51,375	\$ 52,060
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 1,735	\$ 3,498
Dental Claims	<u>733</u>	<u>745</u>
Total	\$ 2,468	\$ 4,243
Total Claims Costs	\$ 53,843	\$ 56,303

^aRetired participants with dental only coverage, 56 as of July 1, 2017, and 60 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING PROJECTIONS BASED ON JULY 1, 2018, ACTUARIAL VALUATION (\$ IN 000'S) BARGAINING UNIT NUMBER 8 FIREFIGHTERS									
Fiscal Year Beginning		7/1/2018							
Long-term Asset Return		7.000%							
Discount Rate		7.000%							
Year Plan is Fully Funded		2049							
FYE	Assets (boy)	Disbursements/ Benefits	Administrative Expenses	Pre-Fund Contribution	Investment Income	Assets (eoy)	Accrued Liability (eoy)	Funded Ratio	Normal Cost
2018	\$ -	\$ -	\$ 3	\$ 12,132	\$ 176	\$ 12,305	\$ 1,447,313	0.9%	\$ 43,154
2019	12,305	-	130	21,642	1,602	35,419	1,540,922	2.3%	43,314
2020	35,419	-	141	32,591	3,596	71,465	1,636,869	4.4%	43,416
2021	71,465	-	154	43,570	6,496	121,377	1,734,125	7.0%	43,415
2022	121,377	-	168	43,582	9,990	174,781	1,832,444	9.5%	43,286
2023	174,781	-	183	43,468	13,724	231,790	1,931,338	12.0%	43,008
2024	231,790	-	198	43,205	17,705	292,502	2,030,603	14.4%	42,611
2025	292,502	-	213	42,825	21,942	357,056	2,129,988	16.8%	42,086
2026	357,056	-	228	42,314	26,442	425,584	2,229,716	19.1%	41,406
2027	425,584	-	242	41,649	31,216	498,207	2,329,790	21.4%	40,575
2028	498,207	-	257	40,832	36,271	575,053	2,429,812	23.7%	39,597
2029	575,053	-	273	39,870	41,616	656,266	2,529,117	25.9%	38,469
2030	656,266	-	290	38,759	47,262	741,997	2,627,347	28.2%	37,219
2031	741,997	-	308	37,527	53,220	832,436	2,723,604	30.6%	35,843
2032	832,436	-	327	36,170	59,504	927,783	2,817,112	32.9%	34,334
2033	927,783	-	347	34,681	66,126	1,028,243	2,907,284	35.4%	32,702
2034	1,028,243	-	368	33,070	73,102	1,134,047	2,993,404	37.9%	30,919
2035	1,134,047	-	389	31,309	80,447	1,245,414	3,074,881	40.5%	28,990
2036	1,245,414	-	411	29,401	88,176	1,362,580	3,150,851	43.2%	26,974
2037	1,362,580	-	433	27,407	96,309	1,485,863	3,220,898	46.1%	24,899
2038	1,485,863	-	455	25,354	104,867	1,615,629	3,284,517	49.2%	22,777
2039	1,615,629	-	478	23,254	113,878	1,752,283	3,341,097	52.4%	20,608
2040	1,752,283	-	500	21,109	123,369	1,896,261	3,390,017	55.9%	18,392
2041	1,896,261	-	523	18,915	133,371	2,048,024	3,430,613	59.7%	16,184
2042	2,048,024	-	545	16,730	143,919	2,208,128	3,462,500	63.8%	14,034
2043	2,208,128	-	567	14,600	155,052	2,377,213	3,485,445	68.2%	11,888
2044	2,377,213	-	588	12,475	166,814	2,555,914	3,499,014	73.0%	9,777
2045	2,555,914	-	607	10,384	179,250	2,744,941	3,503,120	78.4%	7,795
2046	2,744,941	-	625	8,420	192,414	2,945,150	3,498,086	84.2%	6,005
2047	2,945,150	-	641	6,646	206,367	3,157,522	3,484,183	90.6%	4,458
2048	3,157,522	-	655	5,112	221,180	3,383,159	3,461,936	97.7%	3,217
2049	3,383,159	170,255	665	3,882	231,074	3,447,195	3,432,509	100.4%	2,281
2050	3,447,195	268,804	672	-	232,032	3,409,751	3,397,146	100.4%	1,588
2051	3,409,751	271,150	678	-	229,330	3,367,253	3,356,141	100.3%	1,082
2052	3,367,253	272,962	682	-	226,292	3,319,901	3,309,851	100.3%	719
2053	3,319,901	273,793	684	-	222,949	3,268,373	3,259,076	100.3%	468
2054	3,268,373	274,121	685	-	219,330	3,212,897	3,204,139	100.3%	297
2055	3,212,897	273,813	685	-	215,458	3,153,857	3,145,494	100.3%	184
2056	3,153,857	272,834	682	-	211,359	3,091,700	3,083,638	100.3%	112

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM
DEVELOPMENT OF GASB NOS. 74 AND 75 SINGLE EQUIVALENT DISCOUNT RATE, (\$ IN 000'S)
BARGAINING UNIT NUMBER 8
FIREFIGHTERS

Present Value of Benefits	\$ 3,616,901	\$ 3,616,901
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Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER BARGAINING UNIT NUMBER 8 FIREFIGHTERS		
Fiscal Year Ending	June 30, 2017	June 30, 2018
Total OPEB Liability		
Service Cost	\$ 116,930	\$ 101,638
Interest on Total OPEB Liability	88,265	97,944
Changes of Benefit Terms	-	-
Difference between Expected and Actual Experience	-	(192,151)
Changes of Assumptions	(248,744)	4,237
Benefit Payments	(49,073)	(51,630)
Net Change in Total OPEB Liability	\$ (92,622)	\$ (39,962)
Total OPEB Liability - Beginning	\$ 2,400,763	\$ 2,308,141
Total OPEB Liability - Ending (a)	\$ 2,308,141	\$ 2,268,179
Plan Fiduciary Net Position		
Employer PayGO Contributions	\$ 49,073	\$ 51,630
Employer Pre Funding Contributions	-	6,066
Active Member Contributions	-	6,066
Net Investment Income	-	176
Benefit Payments	(49,073)	(51,630)
Administrative Expense	-	(3)
Other	-	-
Net Change in Plan Fiduciary Net Position	\$ -	\$ 12,305
Plan Fiduciary Net Position - Beginning	\$ -	\$ -
Plan Fiduciary Net Position - Ending (b)	\$ -	\$ 12,305
Net OPEB Liability - Ending (a) - (b)	\$ 2,308,141	\$ 2,255,874
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	0.000%	0.543%
Actuarially Determined Contribution (ADC)	\$ 118,158	\$ 115,637
Employer Contribution	\$ 49,073	\$ 57,696
Percentage of ADC made by Employer	42%	50%
Contribution Excess/(Shortfall)	\$ (69,085)	\$ (57,941)
Expected Return on Assets	\$ -	\$ 434
Investment (Gain)/Loss	\$ -	\$ 258
Average Expected Remaining Service	9.568629	9.356156
Blended Discount Rate Beginning of Year	3.540%	4.108%
Blended Discount Rate End of Year	4.108%	4.152%
Long-term Expected Return on Assets	7.280%	7.000%

Individual Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) BARGAINING UNIT NUMBER 8 FIREFIGHTERS		
Measured for the Plan's Fiscal Year Ending Applicable for the Sponsor's Fiscal Year Ending	June 30, 2017 June 30, 2018	June 30, 2018 June 30, 2019
OPEB Expense		
Service Cost	\$ 116,930	\$ 101,638
Interest on the Total OPEB Liability	88,265	97,944
Current-Period Benefit Changes	-	-
Active Member Contributions	-	(6,066)
Projected Earnings on Plan Investments	-	(434)
Operating Expenses	-	3
Other Changes in Plan Fiduciary Net Position	-	-
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(20,537)
Recognition of Outflow/(Inflow) due to Assumption Changes	(25,996)	(25,543)
Recognition of Outflow/(Inflow) due to Investment Experience	-	52
Net OPEB Expense	\$ 179,199	\$ 147,057
Reconciliation of Net OPEB Liability		
Net OPEB Liability beginning of year	\$ 2,400,763	\$ 2,308,141
OPEB Expense	179,199	147,057
Employer Contributions	(49,073)	(57,696)
Change in Outflow/(Inflow) due to Non-investment Experience	-	(171,614)
Change in Outflow/(Inflow) due to Assumption Changes	(222,748)	29,780
Change in Outflow/(Inflow) due to Investment Experience	-	206
Net OPEB Liability End of year	\$ 2,308,141	\$ 2,255,874
Deferred (Inflows)		
Non-investment Experience	\$ -	\$ (171,614)
Assumption Changes	\$ (222,748)	\$ (196,752)
Investment Experience	\$ -	\$ -
Deferred Outflows		
Non-investment Experience	\$ -	\$ -
Assumption Changes	\$ -	\$ 3,784
Investment Experience	\$ -	\$ 206
Net OPEB Liability Sensitivity		
Baseline Discount Rate	4.108%	4.152%
Baseline Discount Rate and 4.5% Ultimate Trend	\$ 2,308,141	\$ 2,255,874
Increase Discount Rate by One Percentage Point	\$ 1,947,685	\$ 1,902,960
Decrease Discount Rate by One Percentage Point	\$ 2,772,181	\$ 2,710,844
Increase Trend Rate by One Percentage Point	\$ 2,821,963	\$ 2,684,581
Decrease Trend Rate by One Percentage Point	\$ 1,918,336	\$ 1,928,567

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES DEFERRED INFLOWS AND OUTFLOWS BARGAINING UNIT NUMBER 8 FIREFIGHTERS									
Valuation Date		6/30/2018							
Measurement Date		6/30/2018							
	Non-Investment Experience			Assumption Changes			Investment Experience		
	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization
Plan Year Beginning									
7/1/2016	\$ -	9.568629	\$ -	\$ (248,744)	9.568629	\$ (25,996)	\$ -	\$ 5.000000	\$ -
7/1/2017	\$ (192,151)	9.356156	\$ (20,537)	\$ 4,237	9.356156	\$ 453	\$ 258	5.000000	\$ 52
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Current Plan Year End	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2018	\$ -	\$ (20,537)	\$ (20,537)	\$ 453	\$ (25,996)	\$ (25,543)	\$ 52	\$ -	\$ 52
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Future Plan Years Ending									
6/30/2019	\$ -	\$ (20,537)	\$ (20,537)	\$ 453	\$ (25,996)	\$ (25,543)	\$ 52	\$ -	\$ 52
6/30/2020	\$ -	\$ (20,537)	\$ (20,537)	\$ 453	\$ (25,996)	\$ (25,543)	\$ 52	\$ -	\$ 52
6/30/2021	\$ -	\$ (20,537)	\$ (20,537)	\$ 453	\$ (25,996)	\$ (25,543)	\$ 52	\$ -	\$ 52
6/30/2022	\$ -	\$ (20,537)	\$ (20,537)	\$ 453	\$ (25,996)	\$ (25,543)	\$ 50	\$ -	\$ 50
6/30/2023	\$ -	\$ (20,537)	\$ (20,537)	\$ 453	\$ (25,996)	\$ (25,543)	\$ -	\$ -	\$ -
6/30/2024	\$ -	\$ (20,537)	\$ (20,537)	\$ 453	\$ (25,996)	\$ (25,543)	\$ -	\$ -	\$ -
6/30/2025	\$ -	\$ (20,537)	\$ (20,537)	\$ 453	\$ (25,996)	\$ (25,543)	\$ -	\$ -	\$ -
6/30/2026	\$ -	\$ (20,537)	\$ (20,537)	\$ 453	\$ (14,780)	\$ (14,327)	\$ -	\$ -	\$ -
6/30/2027	\$ -	\$ (7,318)	\$ (7,318)	\$ 160	\$ -	\$ 160	\$ -	\$ -	\$ -
Total	\$ -	\$ (171,614)	\$ (171,614)	\$ 3,784	\$ (196,752)	\$ (192,968)	\$ 206	\$ -	\$ 206
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2018			\$ (171,614)			\$ 29,780			\$ 206

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 BARGAINING UNIT NUMBER 9 PROFESSIONAL ENGINEERS		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	12,222	12,462
Retired Participants ^a	<u>6,328</u>	<u>6,868</u>
Total Participants	18,550	19,330
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 2,014,743	\$ 1,904,675
Retired Participants	<u>1,090,479</u>	<u>1,192,145</u>
Total Participants	\$ 3,105,222	\$ 3,096,820
Actuarial Accrued Liability		
Active Participants	\$ 1,597,460	\$ 1,462,748
Retired Participants	<u>1,090,479</u>	<u>1,192,145</u>
Total Participants	\$ 2,687,939	\$ 2,654,893
Actuarial Value of Assets	\$ 38,829	\$ 53,429
Unfunded Actuarial Accrued Liability	\$ 2,649,110	\$ 2,601,464
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 56,930	\$ 55,283
Administrative Expenses	224	233
Amortization of UAAL	<u>149,873</u>	<u>149,472</u>
Total ADC	\$ 207,027	\$ 204,988
Estimated Member Contributions	<u>(7,144)</u>	<u>(13,879)</u>
Net Employer ADC	\$ 199,883	\$ 191,109
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 58,152	\$ 62,277
Part B Reimbursement	9,596	11,820
Dental Claims	<u>4,350</u>	<u>4,627</u>
Total	\$ 72,098	\$ 78,724
Employer Implicit Costs	<u>14,219</u>	<u>14,477</u>
Total Employer Costs	\$ 86,317	\$ 93,201
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 1,962	\$ 4,184
Dental Claims	<u>1,377</u>	<u>1,466</u>
Total	\$ 3,339	\$ 5,650
Total Claims Costs	\$ 89,656	\$ 98,851

^aRetired participants with dental only coverage, 278 as of July 1, 2017, and 306 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING PROJECTIONS BASED ON JULY 1, 2018, ACTUARIAL VALUATION (\$ IN 000'S) BARGAINING UNIT NUMBER 9 PROFESSIONAL ENGINEERS									
Fiscal Year Beginning		7/1/2018							
Long-term Asset Return		7.000%							
Discount Rate		7.000%							
Year Plan is Fully Funded		2049							
FYE	Assets (bo)	Disbursements/ Benefits	Administrative Expenses	Pre-Fund Contribution	Investment Income	Assets (eo)	Accrued Liability (eo)	Funded Ratio	Normal Cost
2018	\$ 38,829	\$ -	\$ 22	\$ 11,376	\$ 3,246	\$ 53,429	\$ 2,654,893	2.0%	\$ 55,283
2019	53,429	-	233	27,758	4,687	85,641	2,803,428	3.1%	52,400
2020	85,641	-	265	39,498	7,345	132,219	2,946,157	4.5%	49,677
2021	132,219	-	303	49,979	10,965	192,860	3,080,315	6.3%	47,006
2022	192,860	-	340	47,346	15,118	254,984	3,205,536	8.0%	44,384
2023	254,984	-	376	44,760	19,376	318,744	3,321,767	9.6%	41,795
2024	318,744	-	412	42,207	23,750	384,289	3,428,511	11.2%	39,274
2025	384,289	-	446	39,720	28,252	451,815	3,525,985	12.8%	36,851
2026	451,815	-	477	37,328	32,895	521,561	3,614,980	14.4%	34,507
2027	521,561	-	503	35,011	37,697	593,766	3,696,581	16.1%	32,252
2028	593,766	-	529	32,781	42,673	668,691	3,771,033	17.7%	30,088
2029	668,691	-	554	30,642	47,844	746,623	3,837,911	19.5%	28,016
2030	746,623	-	578	28,594	53,228	827,867	3,897,329	21.2%	26,032
2031	827,867	-	601	26,633	58,847	912,746	3,949,139	23.1%	24,129
2032	912,746	-	625	24,754	64,723	1,001,598	3,992,734	25.1%	22,308
2033	1,001,598	-	649	22,957	70,880	1,094,786	4,027,617	27.2%	20,574
2034	1,094,786	-	671	21,245	77,343	1,192,703	4,053,669	29.4%	18,926
2035	1,192,703	-	694	19,620	84,140	1,295,769	4,070,643	31.8%	17,365
2036	1,295,769	-	715	18,081	91,301	1,404,436	4,078,179	34.4%	15,898
2037	1,404,436	-	735	16,634	98,858	1,519,193	4,076,385	37.3%	14,510
2038	1,519,193	-	753	15,263	106,843	1,640,546	4,065,542	40.4%	13,181
2039	1,640,546	-	770	13,952	115,292	1,769,020	4,045,436	43.7%	11,908
2040	1,769,020	-	787	12,695	124,241	1,905,169	4,015,681	47.4%	10,691
2041	1,905,169	-	801	11,493	133,730	2,049,591	3,976,608	51.5%	9,535
2042	2,049,591	-	814	10,349	143,799	2,202,925	3,928,191	56.1%	8,438
2043	2,202,925	-	827	9,266	154,495	2,365,859	3,869,820	61.1%	7,404
2044	2,365,859	-	839	8,242	165,865	2,539,127	3,801,570	66.8%	6,431
2045	2,539,127	-	848	7,279	177,960	2,723,518	3,723,765	73.1%	5,529
2046	2,723,518	-	855	6,384	190,836	2,919,883	3,636,647	80.3%	4,702
2047	2,919,883	-	859	5,561	204,553	3,129,138	3,540,980	88.4%	3,948
2048	3,129,138	-	858	4,807	219,175	3,352,262	3,437,830	97.5%	3,274
2049	3,352,262	236,069	855	4,129	226,648	3,346,115	3,328,053	100.5%	2,682
2050	3,346,115	339,575	849	-	222,515	3,228,206	3,212,603	100.5%	2,161
2051	3,228,206	335,521	839	-	214,401	3,106,247	3,092,710	100.4%	1,707
2052	3,106,247	330,485	826	-	206,037	2,980,973	2,969,150	100.4%	1,320
2053	2,980,973	324,618	812	-	197,471	2,853,014	2,842,598	100.4%	997
2054	2,853,014	317,711	794	-	188,752	2,723,261	2,713,989	100.3%	734
2055	2,723,261	310,021	775	-	179,934	2,592,399	2,584,053	100.3%	528
2056	2,592,399	301,507	754	-	171,068	2,461,206	2,453,609	100.3%	373

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM							
DEVELOPMENT OF GASB NOS. 74 AND 75 SINGLE EQUIVALENT DISCOUNT RATE, (\$ IN 000'S)							
BARGAINING UNIT NUMBER 9							
PROFESSIONAL ENGINEERS							
20-Year GO Municipal Bond Rate at June 30, 2018		3.620%					
Long-Term Investment Return		7.000%					
Year Plan is Fully Funded		2049					
Single Equivalent Rate		3.953%					
Present Value of Benefits		\$ 5,375,613			\$ 5,375,613		
FYE	Net Employer Benefits	Cross-over Investment Return	Discount Factor	Discounted Benefit Payment	Single Equivalent Return	Discount Factor	Discounted Benefit Payment
2019	\$ 93,201	3.620%	0.98238	\$ 91,558	3.953%	0.98080	\$ 91,411
2020	105,884	3.620%	0.94806	100,384	3.953%	0.94351	99,902
2021	121,009	3.620%	0.91494	110,715	3.953%	0.90763	109,832
2022	135,965	3.620%	0.88297	120,054	3.953%	0.87312	118,714
2023	150,412	3.620%	0.85213	128,170	3.953%	0.83992	126,335
2024	164,774	3.620%	0.82236	135,503	3.953%	0.80799	133,135
2025	178,350	3.620%	0.79363	141,544	3.953%	0.77726	138,625
2026	190,639	3.620%	0.76590	146,010	3.953%	0.74771	142,542
2027	201,383	3.620%	0.73914	148,851	3.953%	0.71928	144,850
2028	211,485	3.620%	0.71332	150,857	3.953%	0.69193	146,332
2029	221,607	3.620%	0.68840	152,555	3.953%	0.66562	147,506
2030	231,200	3.620%	0.66435	153,598	3.953%	0.64031	148,039
2031	240,527	3.620%	0.64114	154,212	3.953%	0.61596	148,155
2032	250,002	3.620%	0.61874	154,688	3.953%	0.59254	148,136
2033	259,494	3.620%	0.59713	154,951	3.953%	0.57001	147,914
2034	268,598	3.620%	0.57627	154,784	3.953%	0.54834	147,282
2035	277,434	3.620%	0.55614	154,291	3.953%	0.52749	146,342
2036	286,093	3.620%	0.53671	153,548	3.953%	0.50743	145,172
2037	294,106	3.620%	0.51796	152,334	3.953%	0.48813	143,563
2038	301,298	3.620%	0.49986	150,608	3.953%	0.46957	141,482
2039	308,146	3.620%	0.48240	148,649	3.953%	0.45172	139,195
2040	314,798	3.620%	0.46555	146,553	3.953%	0.43454	136,793
2041	320,535	3.620%	0.44928	144,011	3.953%	0.41802	133,990
2042	325,730	3.620%	0.43359	141,232	3.953%	0.40213	130,984
2043	330,944	3.620%	0.41844	138,480	3.953%	0.38683	128,021
2044	335,477	3.620%	0.40382	135,472	3.953%	0.37213	124,840
2045	339,091	3.620%	0.38971	132,148	3.953%	0.35798	121,386
2046	341,899	3.620%	0.37610	128,588	3.953%	0.34436	117,738
2047	343,415	3.620%	0.36296	124,646	3.953%	0.33127	113,763
2048	343,399	3.620%	0.35028	120,285	3.953%	0.31867	109,432
2049	342,129	3.620%	0.33804	115,654	3.953%	0.30656	104,882
2050	339,575	7.000%	0.31593	107,281	3.953%	0.29490	100,141
2051	335,521	7.000%	0.29526	99,065	3.953%	0.28369	95,183
2052	330,485	7.000%	0.27594	91,195	3.953%	0.27290	90,190
2053	324,618	7.000%	0.25789	83,716	3.953%	0.26252	85,220
2054	317,711	7.000%	0.24102	76,574	3.953%	0.25254	80,235
2055	310,021	7.000%	0.22525	69,833	3.953%	0.24294	75,316
2065	205,971	7.000%	0.11451	23,585	3.953%	0.16487	33,958
2075	101,214	7.000%	0.05821	5,892	3.953%	0.11189	11,325
2085	28,240	7.000%	0.02959	836	3.953%	0.07593	2,144
2095	2,446	7.000%	0.01504	37	3.953%	0.05153	126
2105	15	7.000%	0.00765	-	3.953%	0.03497	1
2115	-	7.000%	0.00389	-	3.953%	0.02373	

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER BARGAINING UNIT NUMBER 9 PROFESSIONAL ENGINEERS		
Fiscal Year Ending	June 30, 2017	June 30, 2018
Total OPEB Liability		
Service Cost	\$ 166,173	\$ 142,954
Interest on Total OPEB Liability	154,495	174,062
Changes of Benefit Terms	-	-
Difference between Expected and Actual Experience	-	(333,182)
Changes of Assumptions	(475,991)	(200,549)
Benefit Payments	(82,449)	(86,746)
Net Change in Total OPEB Liability	\$ (237,772)	\$ (303,461)
Total OPEB Liability - Beginning	\$ 4,640,159	\$ 4,402,387
Total OPEB Liability - Ending (a)	\$ 4,402,387	\$ 4,098,926
Plan Fiduciary Net Position		
Employer PayGO Contributions	\$ 82,449	\$ 86,746
Employer Pre Funding Contributions	35,210	5,688
Active Member Contributions	-	5,688
Net Investment Income	3,630	3,246
Benefit Payments	(82,449)	(86,746)
Administrative Expense	(11)	(22)
Other	-	-
Net Change in Plan Fiduciary Net Position	\$ 38,829	\$ 14,600
Plan Fiduciary Net Position - Beginning	\$ -	\$ 38,829
Plan Fiduciary Net Position - Ending (b)	\$ 38,829	\$ 53,429
Net OPEB Liability - Ending (a) - (b)	\$ 4,363,558	\$ 4,045,497
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	0.882%	1.303%
Actuarially Determined Contribution (ADC)	\$ 200,997	\$ 201,339
Employer Contribution	\$ 117,659	\$ 92,434
Percentage of ADC made by Employer	59%	46%
Contribution Excess/(Shortfall)	\$ (83,338)	\$ (108,905)
Expected Return on Assets	\$ 1,778	\$ 3,233
Investment (Gain)/Loss	\$ (1,852)	\$ (13)
Average Expected Remaining Service	5.858108	6.293618
Blended Discount Rate Beginning of Year	3.242%	3.866%
Blended Discount Rate End of Year	3.866%	3.953%
Long-term Expected Return on Assets	7.280%	7.000%

Individual Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) BARGAINING UNIT NUMBER 9 PROFESSIONAL ENGINEERS			
Measured for the Plan's Fiscal Year Ending	June 30, 2017	June 30, 2018	June 30, 2018
Applicable for the Sponsor's Fiscal Year Ending	June 30, 2018	June 30, 2018	June 30, 2019
OPEB Expense			
Service Cost	\$ 166,173	\$ 142,954	
Interest on the Total OPEB Liability	154,495	174,062	
Current-Period Benefit Changes	-	-	
Active Member Contributions	-	(5,688)	
Projected Earnings on Plan Investments	(1,778)	(3,233)	
Operating Expenses	11	22	
Other Changes in Plan Fiduciary Net Position	-	-	
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(52,940)	
Recognition of Outflow/(Inflow) due to Assumption Changes	(81,253)	(113,118)	
Recognition of Outflow/(Inflow) due to Investment Experience	(371)	(373)	
Net OPEB Expense	\$ 237,277	\$ 141,686	
Reconciliation of Net OPEB Liability			
Net OPEB Liability beginning of year	\$ 4,640,159	\$ 4,363,558	
OPEB Expense	237,277	141,686	
Employer Contributions	(117,659)	(92,434)	
Change in Outflow/(Inflow) due to Non-investment Experience	-	(280,242)	
Change in Outflow/(Inflow) due to Assumption Changes	(394,738)	(87,431)	
Change in Outflow/(Inflow) due to Investment Experience	(1,481)	360	
Net OPEB Liability End of year	\$ 4,363,558	\$ 4,045,497	
Deferred (Inflows)			
Non-investment Experience	\$ -	\$ (280,242)	
Assumption Changes	\$ (394,738)	\$ (482,169)	
Investment Experience	\$ (1,481)	\$ (1,122)	
Deferred Outflows			
Non-investment Experience	\$ -	\$ -	
Assumption Changes	\$ -	\$ -	
Investment Experience	\$ -	\$ -	
Net OPEB Liability Sensitivity			
Baseline Discount Rate	3.866%	3.953%	
Baseline Discount Rate and 4.5% Ultimate Trend	\$ 4,363,558	\$ 4,045,497	
Increase Discount Rate by One Percentage Point	\$ 3,727,267	\$ 3,466,633	
Decrease Discount Rate by One Percentage Point	\$ 5,161,339	\$ 4,768,695	
Increase Trend Rate by One Percentage Point	\$ 5,241,071	\$ 4,700,881	
Decrease Trend Rate by One Percentage Point	\$ 3,676,765	\$ 3,529,470	

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES DEFERRED INFLOWS AND OUTFLOWS BARGAINING UNIT NUMBER 9 PROFESSIONAL ENGINEERS									
Valuation Date		6/30/2018							
Measurement Date		6/30/2018							
	Non-Investment Experience			Assumption Changes			Investment Experience		
	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization
Plan Year Beginning									
7/1/2016	\$ -	5.858108	\$ -	\$ (475,991)	5.858108	\$ (81,253)	\$ (1,852)	5.000000	\$ (370)
7/1/2017	\$ (333,182)	6.293618	\$ (52,940)	\$ (200,549)	6.293618	\$ (31,865)	\$ (13)	5.000000	\$ (3)
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Current Plan Year End	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2018	\$ -	\$ (52,940)	\$ (52,940)	\$ -	\$ (113,118)	\$ (113,118)	\$ -	\$ (373)	\$ (373)
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Future Plan Years Ending									
6/30/2019	\$ -	\$ (52,940)	\$ (52,940)	\$ -	\$ (113,118)	\$ (113,118)	\$ -	\$ (373)	\$ (373)
6/30/2020	\$ -	\$ (52,940)	\$ (52,940)	\$ -	\$ (113,118)	\$ (113,118)	\$ -	\$ (373)	\$ (373)
6/30/2021	\$ -	\$ (52,940)	\$ (52,940)	\$ -	\$ (113,118)	\$ (113,118)	\$ -	\$ (375)	\$ (375)
6/30/2022	\$ -	\$ (52,940)	\$ (52,940)	\$ -	\$ (101,591)	\$ (101,591)	\$ -	\$ (1)	\$ (1)
6/30/2023	\$ -	\$ (52,940)	\$ (52,940)	\$ -	\$ (31,865)	\$ (31,865)	\$ -	\$ -	\$ -
6/30/2024	\$ -	\$ (15,542)	\$ (15,542)	\$ -	\$ (9,359)	\$ (9,359)	\$ -	\$ -	\$ -
6/30/2025	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ (280,242)	\$ (280,242)	\$ -	\$ (482,169)	\$ (482,169)	\$ -	\$ (1,122)	\$ (1,122)
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2018			\$ (280,242)			\$ (87,431)			\$ 360

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 BARGAINING UNIT NUMBER 10 PROFESSIONAL SCIENTIFIC		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	3,760	3,851
Retired Participants ^a	<u>1,722</u>	<u>1,870</u>
Total Participants	5,482	5,721
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 479,766	\$ 468,985
Retired Participants	<u>299,574</u>	<u>323,838</u>
Total Participants	\$ 779,340	\$ 792,823
Actuarial Accrued Liability		
Active Participants	\$ 335,480	\$ 314,569
Retired Participants	<u>299,574</u>	<u>323,838</u>
Total Participants	\$ 635,054	\$ 638,407
Actuarial Value of Assets	\$ 8,954	\$ 13,455
Unfunded Actuarial Accrued Liability	\$ 626,100	\$ 624,952
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 16,751	\$ 16,360
Administrative Expenses	56	58
Amortization of UAAL	<u>35,422</u>	<u>35,908</u>
Total ADC	\$ 52,229	\$ 52,326
Estimated Member Contributions	<u>(2,101)</u>	<u>(4,105)</u>
Net Employer ADC	\$ 50,128	\$ 48,221
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 14,821	\$ 15,505
Part B Reimbursement	2,601	3,328
Dental Claims	<u>1,159</u>	<u>1,227</u>
Total	\$ 18,581	\$ 20,060
Employer Implicit Costs	<u>2,915</u>	<u>3,115</u>
Total Employer Costs	\$ 21,496	\$ 23,175
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 462	\$ 925
Dental Claims	<u>368</u>	<u>390</u>
Total	\$ 830	\$ 1,315
Total Claims Costs	\$ 22,326	\$ 24,490

^aRetired participants with dental only coverage, 88 as of July 1, 2017, and 90 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING PROJECTIONS BASED ON JULY 1, 2018, ACTUARIAL VALUATION (\$ IN 000'S) BARGAINING UNIT NUMBER 10 PROFESSIONAL SCIENTIFIC									
Fiscal Year Beginning		7/1/2018							
Long-term Asset Return		7.000%							
Discount Rate		7.000%							
Year Plan is Fully Funded		2048							
FYE	Assets (boy)	Disbursements/ Benefits	Administrative Expenses	Pre-Fund Contribution	Investment Income	Assets (eoy)	Accrued Liability (eoy)	Funded Ratio	Normal Cost
2018	\$ 8,954	\$ -	\$ 6	\$ 3,744	\$ 763	\$ 13,455	\$ 638,407	2.1%	\$ 16,360
2019	13,455	-	58	8,209	1,222	22,828	676,616	3.4%	15,707
2020	22,828	-	65	11,829	2,003	36,595	713,994	5.1%	15,128
2021	36,595	-	73	15,201	3,082	54,805	749,944	7.3%	14,590
2022	54,805	-	81	14,671	4,338	73,733	784,371	9.4%	14,083
2023	73,733	-	89	14,172	5,646	93,462	817,382	11.4%	13,598
2024	93,462	-	97	13,695	7,010	114,070	849,061	13.4%	13,130
2025	114,070	-	104	13,234	8,437	135,637	879,473	15.4%	12,686
2026	135,637	-	111	12,797	9,931	158,254	908,669	17.4%	12,257
2027	158,254	-	117	12,374	11,500	182,011	936,871	19.4%	11,837
2028	182,011	-	123	11,960	13,148	206,996	964,103	21.5%	11,427
2029	206,996	-	130	11,556	14,883	233,305	990,215	23.6%	11,020
2030	233,305	-	136	11,156	16,711	261,036	1,015,143	25.7%	10,612
2031	261,036	-	142	10,754	18,638	290,286	1,038,601	27.9%	10,191
2032	290,286	-	149	10,340	20,671	321,148	1,060,438	30.3%	9,753
2033	321,148	-	156	9,909	22,816	353,717	1,080,511	32.7%	9,300
2034	353,717	-	163	9,463	25,080	388,097	1,098,537	35.3%	8,838
2035	388,097	-	170	9,008	27,471	424,406	1,114,394	38.1%	8,367
2036	424,406	-	177	8,544	29,996	462,769	1,128,059	41.0%	7,880
2037	462,769	-	184	8,063	32,665	503,313	1,139,433	44.2%	7,383
2038	503,313	-	190	7,573	35,486	546,182	1,148,367	47.6%	6,883
2039	546,182	-	196	7,080	38,470	591,536	1,154,891	51.2%	6,378
2040	591,536	-	202	6,580	41,627	639,541	1,158,937	55.2%	5,867
2041	639,541	-	208	6,075	44,970	690,378	1,160,287	59.5%	5,352
2042	690,378	-	213	5,565	48,510	744,240	1,159,081	64.2%	4,837
2043	744,240	-	218	5,054	52,263	801,339	1,155,321	69.4%	4,323
2044	801,339	-	222	4,546	56,242	861,905	1,148,808	75.0%	3,818
2045	861,905	-	226	4,044	60,465	926,188	1,139,628	81.3%	3,332
2046	926,188	-	230	3,562	64,948	994,468	1,127,823	88.2%	2,865
2047	994,468	-	233	3,098	69,711	1,067,044	1,113,496	95.8%	2,424
2048	1,067,044	36,337	235	2,659	73,526	1,106,657	1,096,652	100.9%	2,012
2049	1,106,657	94,992	237	-	74,189	1,085,617	1,077,302	100.8%	1,635
2050	1,085,617	95,510	239	-	72,699	1,062,567	1,055,660	100.7%	1,300
2051	1,062,567	95,655	239	-	71,080	1,037,753	1,031,996	100.6%	1,008
2052	1,037,753	95,326	238	-	69,354	1,011,543	1,006,703	100.5%	761
2053	1,011,543	94,707	237	-	67,541	984,140	980,015	100.4%	559
2054	984,140	93,709	234	-	65,657	955,854	952,278	100.4%	402
2055	955,854	92,429	231	-	63,721	926,915	923,755	100.3%	284
2056	926,915	91,101	228	-	61,741	897,327	894,484	100.3%	198

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM								
DEVELOPMENT OF GASB NOS. 74 AND 75 SINGLE EQUIVALENT DISCOUNT RATE, (\$ IN 000'S)								
BARGAINING UNIT NUMBER 10								
PROFESSIONAL SCIENTIFIC								
20-Year GO Municipal Bond Rate at June 30, 2018			3.620%					
Long-Term Investment Return			7.000%					
Year Plan is Fully Funded			2048					
Single Equivalent Rate			4.084%					
Present Value of Benefits			\$ 1,406,657			\$ 1,406,657		
FYE	Net Employer Benefits	Cross-over Investment Return	Discount Factor	Discounted Benefit Payment	Single Equivalent Return	Discount Factor	Discounted Benefit Payment	
2019	\$ 23,175	3.620%	0.98238	\$ 22,766	4.084%	0.98018	\$ 22,715	
2020	25,888	3.620%	0.94806	24,543	4.084%	0.94172	24,379	
2021	29,198	3.620%	0.91494	26,715	4.084%	0.90476	26,418	
2022	32,546	3.620%	0.88297	28,737	4.084%	0.86926	28,291	
2023	35,719	3.620%	0.85213	30,437	4.084%	0.83515	29,831	
2024	38,740	3.620%	0.82236	31,858	4.084%	0.80238	31,084	
2025	41,623	3.620%	0.79363	33,033	4.084%	0.77089	32,087	
2026	44,399	3.620%	0.76590	34,005	4.084%	0.74064	32,884	
2027	46,890	3.620%	0.73914	34,659	4.084%	0.71158	33,366	
2028	49,301	3.620%	0.71332	35,168	4.084%	0.68365	33,705	
2029	51,803	3.620%	0.68840	35,661	4.084%	0.65682	34,025	
2030	54,294	3.620%	0.66435	36,070	4.084%	0.63105	34,262	
2031	56,980	3.620%	0.64114	36,533	4.084%	0.60629	34,546	
2032	59,699	3.620%	0.61874	36,938	4.084%	0.58249	34,774	
2033	62,429	3.620%	0.59713	37,278	4.084%	0.55964	34,938	
2034	65,297	3.620%	0.57627	37,629	4.084%	0.53768	35,109	
2035	68,137	3.620%	0.55614	37,893	4.084%	0.51658	35,198	
2036	70,842	3.620%	0.53671	38,021	4.084%	0.49631	35,159	
2037	73,478	3.620%	0.51796	38,058	4.084%	0.47683	35,036	
2038	76,093	3.620%	0.49986	38,036	4.084%	0.45812	34,860	
2039	78,511	3.620%	0.48240	37,874	4.084%	0.44014	34,556	
2040	80,825	3.620%	0.46555	37,628	4.084%	0.42287	34,178	
2041	83,178	3.620%	0.44928	37,370	4.084%	0.40627	33,793	
2042	85,208	3.620%	0.43359	36,945	4.084%	0.39033	33,259	
2043	87,064	3.620%	0.41844	36,431	4.084%	0.37501	32,650	
2044	88,940	3.620%	0.40382	35,916	4.084%	0.36030	32,045	
2045	90,556	3.620%	0.38971	35,291	4.084%	0.34616	31,347	
2046	91,969	3.620%	0.37610	34,589	4.084%	0.33258	30,587	
2047	93,127	3.620%	0.36296	33,801	4.084%	0.31953	29,757	
2048	94,136	3.620%	0.35028	32,974	4.084%	0.30699	28,899	
2049	94,992	7.000%	0.32736	31,097	4.084%	0.29494	28,017	
2050	95,510	7.000%	0.30595	29,221	4.084%	0.28337	27,064	
2051	95,655	7.000%	0.28593	27,351	4.084%	0.27225	26,042	
2052	95,326	7.000%	0.26723	25,474	4.084%	0.26156	24,934	
2053	94,707	7.000%	0.24974	23,653	4.084%	0.25130	23,800	
2054	93,709	7.000%	0.23341	21,872	4.084%	0.24144	22,625	
2055	92,429	7.000%	0.21814	20,162	4.084%	0.23196	21,440	
2065	77,575	7.000%	0.11089	8,602	4.084%	0.15544	12,058	
2075	48,813	7.000%	0.05637	2,752	4.084%	0.10416	5,084	
2085	14,951	7.000%	0.02866	428	4.084%	0.06980	1,044	
2095	1,153	7.000%	0.01457	17	4.084%	0.04677	54	
2105	17	7.000%	0.00741	-	4.084%	0.03134	1	
2115	-	7.000%	0.00376	-	4.084%	0.02100		

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER BARGAINING UNIT NUMBER 10 PROFESSIONAL SCIENTIFIC		
Fiscal Year Ending	June 30, 2017	June 30, 2018
Total OPEB Liability		
Service Cost	\$ 45,853	\$ 39,944
Interest on Total OPEB Liability	37,273	41,883
Changes of Benefit Terms	-	-
Difference between Expected and Actual Experience	-	(66,406)
Changes of Assumptions	(103,789)	(43,731)
Benefit Payments	(20,533)	(21,752)
Net Change in Total OPEB Liability	\$ (41,196)	\$ (50,062)
Total OPEB Liability - Beginning	\$ 1,060,929	\$ 1,019,733
Total OPEB Liability - Ending (a)	\$ 1,019,733	\$ 969,671
Plan Fiduciary Net Position		
Employer PayGO Contributions	\$ 20,533	\$ 21,752
Employer Pre Funding Contributions	8,119	1,872
Active Member Contributions	-	1,872
Net Investment Income	838	763
Benefit Payments	(20,533)	(21,752)
Administrative Expense	(3)	(6)
Other	-	-
Net Change in Plan Fiduciary Net Position	\$ 8,954	\$ 4,501
Plan Fiduciary Net Position - Beginning	\$ -	\$ 8,954
Plan Fiduciary Net Position - Ending (b)	\$ 8,954	\$ 13,455
Net OPEB Liability - Ending (a) - (b)	\$ 1,010,779	\$ 956,216
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	0.878%	1.388%
Actuarially Determined Contribution (ADC)	\$ 50,708	\$ 50,357
Employer Contribution	\$ 28,652	\$ 23,624
Percentage of ADC made by Employer	57%	47%
Contribution Excess/(Shortfall)	\$ (22,056)	\$ (26,733)
Expected Return on Assets	\$ 410	\$ 786
Investment (Gain)/Loss	\$ (428)	\$ 23
Average Expected Remaining Service	7.400512	7.965646
Blended Discount Rate Beginning of Year	3.399%	3.993%
Blended Discount Rate End of Year	3.993%	4.084%
Long-term Expected Return on Assets	7.280%	7.000%

Individual Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) BARGAINING UNIT NUMBER 10 PROFESSIONAL SCIENTIFIC		
Measured for the Plan's Fiscal Year Ending Applicable for the Sponsor's Fiscal Year Ending	June 30, 2017 June 30, 2018	June 30, 2018 June 30, 2019
OPEB Expense		
Service Cost	\$ 45,853	\$ 39,944
Interest on the Total OPEB Liability	37,273	41,883
Current-Period Benefit Changes	-	-
Active Member Contributions	-	(1,872)
Projected Earnings on Plan Investments	(410)	(786)
Operating Expenses	3	6
Other Changes in Plan Fiduciary Net Position	-	-
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(8,337)
Recognition of Outflow/(Inflow) due to Assumption Changes	(14,025)	(19,515)
Recognition of Outflow/(Inflow) due to Investment Experience	(86)	(81)
Net OPEB Expense	\$ 68,608	\$ 51,242
Reconciliation of Net OPEB Liability		
Net OPEB Liability beginning of year	\$ 1,060,929	\$ 1,010,779
OPEB Expense	68,608	51,242
Employer Contributions	(28,652)	(23,624)
Change in Outflow/(Inflow) due to Non-investment Experience	-	(58,069)
Change in Outflow/(Inflow) due to Assumption Changes	(89,764)	(24,216)
Change in Outflow/(Inflow) due to Investment Experience	(342)	104
Net OPEB Liability End of year	\$ 1,010,779	\$ 956,216
Deferred (Inflows)		
Non-investment Experience	\$ -	\$ (58,069)
Assumption Changes	\$ (89,764)	\$ (113,980)
Investment Experience	\$ (342)	\$ (256)
Deferred Outflows		
Non-investment Experience	\$ -	\$ -
Assumption Changes	\$ -	\$ -
Investment Experience	\$ -	\$ 18
Net OPEB Liability Sensitivity		
Baseline Discount Rate	3.993%	4.084%
Baseline Discount Rate and 4.5% Ultimate Trend	\$ 1,010,779	\$ 956,216
Increase Discount Rate by One Percentage Point	\$ 864,367	\$ 819,061
Decrease Discount Rate by One Percentage Point	\$ 1,194,115	\$ 1,127,676
Increase Trend Rate by One Percentage Point	\$ 1,214,192	\$ 1,114,047
Decrease Trend Rate by One Percentage Point	\$ 852,161	\$ 832,924

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES DEFERRED INFLOWS AND OUTFLOWS BARGAINING UNIT NUMBER 10 PROFESSIONAL SCIENTIFIC									
Valuation Date		6/30/2018							
Measurement Date		6/30/2018							
	Non-Investment Experience			Assumption Changes			Investment Experience		
	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization
Plan Year Beginning									
7/1/2016	\$ -	7.400512	\$ -	\$ (103,789)	7.400512	\$ (14,025)	\$ (428)	5.000000	\$ (86)
7/1/2017	\$ (66,406)	7.965646	\$ (8,337)	\$ (43,731)	7.965646	\$ (5,490)	\$ 23	5.000000	\$ 5
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Current Plan Year End	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2018	\$ -	\$ (8,337)	\$ (8,337)	\$ -	\$ (19,515)	\$ (19,515)	\$ 5	\$ (86)	\$ (81)
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Future Plan Years Ending									
6/30/2019	\$ -	\$ (8,337)	\$ (8,337)	\$ -	\$ (19,515)	\$ (19,515)	\$ 5	\$ (86)	\$ (81)
6/30/2020	\$ -	\$ (8,337)	\$ (8,337)	\$ -	\$ (19,515)	\$ (19,515)	\$ 5	\$ (86)	\$ (81)
6/30/2021	\$ -	\$ (8,337)	\$ (8,337)	\$ -	\$ (19,515)	\$ (19,515)	\$ 5	\$ (84)	\$ (79)
6/30/2022	\$ -	\$ (8,337)	\$ (8,337)	\$ -	\$ (19,515)	\$ (19,515)	\$ 3	\$ -	\$ 3
6/30/2023	\$ -	\$ (8,337)	\$ (8,337)	\$ -	\$ (19,515)	\$ (19,515)	\$ -	\$ -	\$ -
6/30/2024	\$ -	\$ (8,337)	\$ (8,337)	\$ -	\$ (11,104)	\$ (11,104)	\$ -	\$ -	\$ -
6/30/2025	\$ -	\$ (8,047)	\$ (8,047)	\$ -	\$ (5,301)	\$ (5,301)	\$ -	\$ -	\$ -
6/30/2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ (58,069)	\$ (58,069)	\$ -	\$ (113,980)	\$ (113,980)	\$ 18	\$ (256)	\$ (238)
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2018			\$ (58,069)			\$ (24,216)			\$ 104

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 BARGAINING UNIT NUMBER 11 ENGINEERING AND SCIENTIFIC TECHNICIANS		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	2,545	2,371
Retired Participants ^a	<u>1,863</u>	<u>1,922</u>
Total Participants	4,408	4,293
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 309,808	\$ 284,828
Retired Participants	<u>314,473</u>	<u>317,574</u>
Total Participants	\$ 624,281	\$ 602,402
Actuarial Accrued Liability		
Active Participants	\$ 227,043	\$ 206,072
Retired Participants	<u>314,473</u>	<u>317,574</u>
Total Participants	\$ 541,516	\$ 523,646
Actuarial Value of Assets	\$ -	\$ -
Unfunded Actuarial Accrued Liability	\$ 541,516	\$ 523,646
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 10,612	\$ 9,577
Administrative Expenses	58	59
Amortization of UAAL	<u>30,636</u>	<u>30,087</u>
Total ADC	\$ 41,306	\$ 39,723
Estimated Member Contributions	-	<u>(1,204)</u>
Net Employer ADC	\$ 41,306	\$ 38,519
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 15,684	\$ 15,518
Part B Reimbursement	2,440	3,069
Dental Claims	<u>1,197</u>	<u>1,206</u>
Total	\$ 19,321	\$ 19,793
Employer Implicit Costs	<u>3,760</u>	<u>3,625</u>
Total Employer Costs	\$ 23,081	\$ 23,418
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 518	\$ 879
Dental Claims	<u>376</u>	<u>379</u>
Total	\$ 894	\$ 1,258
Total Claims Costs	\$ 23,975	\$ 24,676

^aRetired participants with dental only coverage, 107 as of July 1, 2017, and 108 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING PROJECTIONS BASED ON JULY 1, 2018, ACTUARIAL VALUATION (\$ IN 000'S) BARGAINING UNIT NUMBER 11 ENGINEERING AND SCIENTIFIC TECHNICIANS									
Fiscal Year Beginning		7/1/2018							
Long-term Asset Return		7.000%							
Discount Rate		7.000%							
Year Plan is Fully Funded		2050							
FYE	Assets (boy)	Disbursements/ Benefits	Administrative Expenses	Pre-Fund Contribution	Investment Income	Assets (eoy)	Accrued Liability (eoy)	Funded Ratio	Normal Cost
2018	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 523,646	0.0%	\$ 9,577
2019	-	-	59	2,409	81	2,431	546,311	0.4%	9,068
2020	2,431	-	64	4,566	325	7,258	567,816	1.3%	8,588
2021	7,258	-	70	6,494	729	14,411	587,581	2.5%	8,121
2022	14,411	-	77	8,198	1,288	23,820	605,509	3.9%	7,670
2023	23,820	-	83	7,753	1,931	33,421	621,672	5.4%	7,229
2024	33,421	-	89	7,318	2,588	43,238	635,981	6.8%	6,805
2025	43,238	-	95	6,900	3,261	53,304	648,553	8.2%	6,407
2026	53,304	-	99	6,506	3,952	63,663	659,733	9.6%	6,028
2027	63,663	-	103	6,131	4,664	74,355	669,553	11.1%	5,672
2028	74,355	-	107	5,779	5,400	85,427	678,105	12.6%	5,329
2029	85,427	-	111	5,439	6,163	96,918	685,393	14.1%	5,002
2030	96,918	-	114	5,116	6,956	108,876	691,358	15.7%	4,698
2031	108,876	-	118	4,816	7,783	121,357	695,997	17.4%	4,413
2032	121,357	-	121	4,534	8,647	134,417	699,395	19.2%	4,140
2033	134,417	-	124	4,265	9,552	148,110	701,428	21.1%	3,884
2034	148,110	-	127	4,011	10,501	162,495	702,148	23.1%	3,642
2035	162,495	-	130	3,771	11,500	177,636	701,562	25.3%	3,407
2036	177,636	-	132	3,539	12,552	193,595	699,606	27.7%	3,179
2037	193,595	-	135	3,314	13,661	210,435	696,237	30.2%	2,962
2038	210,435	-	137	3,098	14,832	228,228	691,483	33.0%	2,753
2039	228,228	-	139	2,892	16,071	247,052	685,394	36.0%	2,551
2040	247,052	-	141	2,692	17,382	266,985	677,892	39.4%	2,357
2041	266,985	-	142	2,499	18,770	288,112	669,087	43.1%	2,167
2042	288,112	-	143	2,309	20,243	310,521	659,102	47.1%	1,981
2043	310,521	-	144	2,125	21,805	334,307	647,846	51.6%	1,795
2044	334,307	-	144	1,940	23,463	359,566	635,387	56.6%	1,609
2045	359,566	-	145	1,753	25,225	386,399	621,754	62.1%	1,427
2046	386,399	-	145	1,572	27,097	414,923	606,968	68.4%	1,254
2047	414,923	-	144	1,398	29,088	445,265	591,161	75.3%	1,089
2048	445,265	-	143	1,232	31,206	477,560	574,437	83.1%	929
2049	477,560	-	142	1,071	33,461	511,950	556,823	91.9%	777
2050	511,950	6,357	141	918	35,645	542,015	538,437	100.7%	639
2051	542,015	55,445	139	-	36,029	522,460	519,454	100.6%	514
2052	522,460	54,561	136	-	34,690	502,453	499,922	100.5%	404
2053	502,453	53,372	133	-	33,331	482,279	480,136	100.4%	310
2054	482,279	51,874	130	-	31,970	462,245	460,416	100.4%	232
2055	462,245	50,359	126	-	30,620	442,380	440,798	100.4%	170
2056	442,380	48,757	122	-	29,285	422,786	421,399	100.3%	121

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM								
DEVELOPMENT OF GASB NOS. 74 AND 75 SINGLE EQUIVALENT DISCOUNT RATE, (\$ IN 000'S)								
BARGAINING UNIT NUMBER 11								
ENGINEERING AND SCIENTIFIC TECHNICIANS								
20-Year GO Municipal Bond Rate at June 30, 2018		3.620%						
Long-Term Investment Return		7.000%						
Year Plan is Fully Funded		2050						
Single Equivalent Rate		3.926%						
Present Value of Benefits		\$ 1,016,093			\$ 1,016,093			
FYE	Net Employer Benefits	Cross-over Investment Return	Discount Factor	Discounted Benefit Payment	Single Equivalent Return	Discount Factor	Discounted Benefit Payment	
2019	\$ 23,418	3.620%	0.98238	\$ 23,006	3.926%	0.98093	\$ 22,972	
2020	25,547	3.620%	0.94806	24,220	3.926%	0.94387	24,113	
2021	28,188	3.620%	0.91494	25,790	3.926%	0.90821	25,600	
2022	30,818	3.620%	0.88297	27,211	3.926%	0.87390	26,932	
2023	33,270	3.620%	0.85213	28,350	3.926%	0.84088	27,976	
2024	35,699	3.620%	0.82236	29,358	3.926%	0.80911	28,885	
2025	37,909	3.620%	0.79363	30,085	3.926%	0.77854	29,514	
2026	39,691	3.620%	0.76590	30,400	3.926%	0.74913	29,734	
2027	41,372	3.620%	0.73914	30,580	3.926%	0.72083	29,822	
2028	42,893	3.620%	0.71332	30,597	3.926%	0.69359	29,750	
2029	44,341	3.620%	0.68840	30,524	3.926%	0.66739	29,592	
2030	45,773	3.620%	0.66435	30,409	3.926%	0.64217	29,394	
2031	47,146	3.620%	0.64114	30,227	3.926%	0.61791	29,132	
2032	48,365	3.620%	0.61874	29,925	3.926%	0.59457	28,756	
2033	49,632	3.620%	0.59713	29,637	3.926%	0.57210	28,395	
2034	50,773	3.620%	0.57627	29,259	3.926%	0.55049	27,950	
2035	51,835	3.620%	0.55614	28,827	3.926%	0.52969	27,456	
2036	52,876	3.620%	0.53671	28,379	3.926%	0.50968	26,950	
2037	53,876	3.620%	0.51796	27,905	3.926%	0.49042	26,422	
2038	54,761	3.620%	0.49986	27,373	3.926%	0.47190	25,841	
2039	55,515	3.620%	0.48240	26,780	3.926%	0.45407	25,207	
2040	56,261	3.620%	0.46555	26,192	3.926%	0.43691	24,581	
2041	56,812	3.620%	0.44928	25,525	3.926%	0.42041	23,884	
2042	57,161	3.620%	0.43359	24,784	3.926%	0.40452	23,123	
2043	57,522	3.620%	0.41844	24,069	3.926%	0.38924	22,390	
2044	57,732	3.620%	0.40382	23,314	3.926%	0.37453	21,623	
2045	57,832	3.620%	0.38971	22,538	3.926%	0.36038	20,842	
2046	57,837	3.620%	0.37610	21,752	3.926%	0.34677	20,056	
2047	57,645	3.620%	0.36296	20,923	3.926%	0.33367	19,234	
2048	57,291	3.620%	0.35028	20,068	3.926%	0.32106	18,394	
2049	56,855	3.620%	0.33804	19,219	3.926%	0.30893	17,564	
2050	56,253	3.620%	0.32623	18,351	3.926%	0.29726	16,722	
2051	55,445	7.000%	0.30489	16,905	3.926%	0.28603	15,859	
2052	54,561	7.000%	0.28494	15,547	3.926%	0.27522	15,017	
2053	53,372	7.000%	0.26630	14,213	3.926%	0.26482	14,134	
2054	51,874	7.000%	0.24888	12,910	3.926%	0.25482	13,218	
2055	50,359	7.000%	0.23260	11,713	3.926%	0.24519	12,348	
2065	34,519	7.000%	0.11824	4,082	3.926%	0.16682	5,758	
2075	21,301	7.000%	0.06011	1,280	3.926%	0.11350	2,418	
2085	8,057	7.000%	0.03056	246	3.926%	0.07722	622	
2095	992	7.000%	0.01553	15	3.926%	0.05254	52	
2105	37	7.000%	0.00790	-	3.926%	0.03575	1	
2115	-	7.000%	0.00401	-	3.926%	0.02432	1	

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER BARGAINING UNIT NUMBER 11 ENGINEERING AND SCIENTIFIC TECHNICIANS		
Fiscal Year Ending	June 30, 2017	June 30, 2018
Total OPEB Liability		
Service Cost	\$ 29,767	\$ 25,769
Interest on Total OPEB Liability	30,053	33,746
Changes of Benefit Terms	-	-
Difference between Expected and Actual Experience	-	(78,802)
Changes of Assumptions	(87,170)	(29,546)
Benefit Payments	(22,048)	(23,167)
Net Change in Total OPEB Liability	\$ (49,398)	\$ (72,000)
Total OPEB Liability - Beginning	\$ 909,575	\$ 860,177
Total OPEB Liability - Ending (a)	\$ 860,177	\$ 788,177
Plan Fiduciary Net Position		
Employer PayGO Contributions	\$ 22,048	\$ 23,167
Employer Pre Funding Contributions	-	-
Active Member Contributions	-	-
Net Investment Income	-	-
Benefit Payments	(22,048)	(23,167)
Administrative Expense	-	-
Other	-	-
Net Change in Plan Fiduciary Net Position	\$ -	\$ -
Plan Fiduciary Net Position - Beginning	\$ -	\$ -
Plan Fiduciary Net Position - Ending (b)	\$ -	\$ -
Net OPEB Liability - Ending (a) - (b)	\$ 860,177	\$ 788,177
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	0.000%	0.000%
Actuarially Determined Contribution (ADC)	\$ 40,103	\$ 41,306
Employer Contribution	\$ 22,048	\$ 23,167
Percentage of ADC made by Employer	55%	56%
Contribution Excess/(Shortfall)	\$ (18,055)	\$ (18,139)
Expected Return on Assets	\$ -	\$ -
Investment (Gain)/Loss	\$ -	\$ -
Average Expected Remaining Service	5.847336	5.818532
Blended Discount Rate Beginning of Year	3.237%	3.859%
Blended Discount Rate End of Year	3.859%	3.926%
Long-term Expected Return on Assets	7.280%	7.000%

Individual Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) BARGAINING UNIT NUMBER 11 ENGINEERING AND SCIENTIFIC TECHNICIANS		
Measured for the Plan's Fiscal Year Ending	June 30, 2017	June 30, 2018
Applicable for the Sponsor's Fiscal Year Ending	June 30, 2018	June 30, 2019
OPEB Expense		
Service Cost	\$ 29,767	\$ 25,769
Interest on the Total OPEB Liability	30,053	33,746
Current-Period Benefit Changes	-	-
Active Member Contributions	-	-
Projected Earnings on Plan Investments	-	-
Operating Expenses	-	-
Other Changes in Plan Fiduciary Net Position	-	-
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(13,543)
Recognition of Outflow/(Inflow) due to Assumption Changes	(14,908)	(19,986)
Recognition of Outflow/(Inflow) due to Investment Experience	-	-
Net OPEB Expense	\$ 44,912	\$ 25,986
Reconciliation of Net OPEB Liability		
Net OPEB Liability beginning of year	\$ 909,575	\$ 860,177
OPEB Expense	44,912	25,986
Employer Contributions	(22,048)	(23,167)
Change in Outflow/(Inflow) due to Non-investment Experience	-	(65,259)
Change in Outflow/(Inflow) due to Assumption Changes	(72,262)	(9,560)
Change in Outflow/(Inflow) due to Investment Experience	-	-
Net OPEB Liability End of year	\$ 860,177	\$ 788,177
Deferred (Inflows)		
Non-investment Experience	\$ -	\$ (65,259)
Assumption Changes	\$ (72,262)	\$ (81,822)
Investment Experience	\$ -	\$ -
Deferred Outflows		
Non-investment Experience	\$ -	\$ -
Assumption Changes	\$ -	\$ -
Investment Experience	\$ -	\$ -
Net OPEB Liability Sensitivity		
Baseline Discount Rate	3.859%	3.926%
Baseline Discount Rate and 4.5% Ultimate Trend	\$ 860,177	\$ 788,177
Increase Discount Rate by One Percentage Point	\$ 742,771	\$ 683,374
Decrease Discount Rate by One Percentage Point	\$ 1,006,647	\$ 918,416
Increase Trend Rate by One Percentage Point	\$ 1,015,300	\$ 902,472
Decrease Trend Rate by One Percentage Point	\$ 737,293	\$ 697,120

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES DEFERRED INFLOWS AND OUTFLOWS BARGAINING UNIT NUMBER 11 ENGINEERING AND SCIENTIFIC TECHNICIANS									
Valuation Date		6/30/2018							
Measurement Date		6/30/2018							
	Non-Investment Experience			Assumption Changes			Investment Experience		
	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization
Plan Year Beginning									
7/1/2016	\$ -	5.847336	\$ -	\$ (87,170)	5.847336	\$ (14,908)	\$ -	5.000000	\$ -
7/1/2017	\$ (78,802)	5.818532	\$ (13,543)	\$ (29,546)	5.818532	\$ (5,078)	\$ -	5.000000	\$ -
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Current Plan Year End	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2018	\$ -	\$ (13,543)	\$ (13,543)	\$ -	\$ (19,986)	\$ (19,986)	\$ -	\$ -	\$ -
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Future Plan Years Ending									
6/30/2019	\$ -	\$ (13,543)	\$ (13,543)	\$ -	\$ (19,986)	\$ (19,986)	\$ -	\$ -	\$ -
6/30/2020	\$ -	\$ (13,543)	\$ (13,543)	\$ -	\$ (19,986)	\$ (19,986)	\$ -	\$ -	\$ -
6/30/2021	\$ -	\$ (13,543)	\$ (13,543)	\$ -	\$ (19,986)	\$ (19,986)	\$ -	\$ -	\$ -
6/30/2022	\$ -	\$ (13,543)	\$ (13,543)	\$ -	\$ (17,708)	\$ (17,708)	\$ -	\$ -	\$ -
6/30/2023	\$ -	\$ (11,087)	\$ (11,087)	\$ -	\$ (4,156)	\$ (4,156)	\$ -	\$ -	\$ -
6/30/2024	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2025	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ (65,259)	\$ (65,259)	\$ -	\$ (81,822)	\$ (81,822)	\$ -	\$ -	\$ -
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2018			\$ (65,259)			\$ (9,560)			\$ -

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 BARGAINING UNIT NUMBER 12 CRAFT AND MAINTENANCE		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	12,535	12,717
Retired Participants ^a	<u>9,447</u>	<u>9,664</u>
Total Participants	21,982	22,381
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 1,572,836	\$ 1,507,747
Retired Participants	<u>1,671,379</u>	<u>1,680,681</u>
Total Participants	\$ 3,244,215	\$ 3,188,428
Actuarial Accrued Liability		
Active Participants	\$ 1,053,347	\$ 981,725
Retired Participants	<u>1,671,379</u>	<u>1,680,681</u>
Total Participants	\$ 2,724,726	\$ 2,662,406
Actuarial Value of Assets	\$ 10,206	\$ 27,808
Unfunded Actuarial Accrued Liability	\$ 2,714,520	\$ 2,634,598
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 64,017	\$ 60,806
Administrative Expenses	292	295
Amortization of UAAL	<u>153,574</u>	<u>151,376</u>
Total ADC	\$ 217,883	\$ 212,477
Estimated Member Contributions	<u>(10,718)</u>	<u>(15,275)</u>
Net Employer ADC	\$ 207,165	\$ 197,202
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 80,885	\$ 79,561
Part B Reimbursement	12,009	14,740
Dental Claims	<u>5,927</u>	<u>5,944</u>
Total	\$ 98,821	\$ 100,245
Employer Implicit Costs	<u>17,239</u>	<u>17,729</u>
Total Employer Costs	\$ 116,060	\$ 117,974
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 2,808	\$ 5,296
Dental Claims	<u>1,827</u>	<u>1,836</u>
Total	\$ 4,635	\$ 7,132
Total Claims Costs	\$ 120,695	\$ 125,106

^aRetired participants with dental only coverage, 587 as of July 1, 2017, and 592 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING PROJECTIONS BASED ON JULY 1, 2018, ACTUARIAL VALUATION (\$ IN 000'S) BARGAINING UNIT NUMBER 12 CRAFT AND MAINTENANCE									
Fiscal Year Beginning		7/1/2018							
Long-term Asset Return		7.000%							
Discount Rate		7.000%							
Year Plan is Fully Funded		2048							
FYE	Assets (bo)	Disbursements/ Benefits	Administrative Expenses	Pre-Fund Contribution	Investment Income	Assets (eo)	Accrued Liability (eo)	Funded Ratio	Normal Cost
2018	\$ 10,206	\$ -	\$ 9	\$ 16,560	\$ 1,051	\$ 27,808	\$ 2,662,406	1.0%	\$ 60,806
2019	27,808	-	295	30,551	2,988	61,052	2,791,738	2.2%	58,429
2020	61,052	-	318	39,165	5,610	105,509	2,918,066	3.6%	56,129
2021	105,509	-	349	47,065	8,993	161,218	3,037,991	5.3%	53,830
2022	161,218	-	380	54,210	13,137	228,185	3,151,124	7.2%	51,493
2023	228,185	-	410	51,904	17,745	297,424	3,257,033	9.1%	49,129
2024	297,424	-	439	49,568	22,510	369,063	3,355,716	11.0%	46,766
2025	369,063	-	466	47,232	27,443	443,272	3,447,603	12.9%	44,398
2026	443,272	-	492	44,890	32,557	520,227	3,532,763	14.7%	42,039
2027	520,227	-	516	42,555	37,862	600,128	3,611,480	16.6%	39,711
2028	600,128	-	539	40,250	43,375	683,214	3,683,713	18.5%	37,445
2029	683,214	-	561	38,006	49,113	769,772	3,749,312	20.5%	35,255
2030	769,772	-	584	35,839	55,097	860,124	3,807,798	22.6%	33,136
2031	860,124	-	607	33,742	61,349	954,608	3,858,755	24.7%	31,073
2032	954,608	-	628	31,701	67,892	1,053,573	3,902,057	27.0%	29,056
2033	1,053,573	-	650	29,706	74,750	1,157,379	3,937,328	29.4%	27,101
2034	1,157,379	-	671	27,772	81,949	1,266,429	3,964,189	31.9%	25,204
2035	1,266,429	-	691	25,895	89,517	1,381,150	3,982,591	34.7%	23,339
2036	1,381,150	-	710	24,049	97,484	1,501,973	3,992,464	37.6%	21,523
2037	1,501,973	-	729	22,251	105,879	1,629,374	3,993,447	40.8%	19,777
2038	1,629,374	-	746	20,523	114,737	1,763,888	3,985,329	44.3%	18,094
2039	1,763,888	-	762	18,856	124,095	1,906,077	3,968,167	48.0%	16,478
2040	1,906,077	-	777	17,255	133,992	2,056,547	3,942,010	52.2%	14,929
2041	2,056,547	-	791	15,720	144,472	2,215,948	3,906,635	56.7%	13,445
2042	2,215,948	-	802	14,247	155,579	2,384,972	3,862,487	61.7%	12,010
2043	2,384,972	-	812	12,822	167,361	2,564,343	3,809,689	67.3%	10,619
2044	2,564,343	-	820	11,439	179,869	2,754,831	3,748,192	73.5%	9,292
2045	2,754,831	-	826	10,118	193,158	2,957,281	3,678,650	80.4%	8,034
2046	2,957,281	-	829	8,863	207,286	3,172,601	3,601,519	88.1%	6,852
2047	3,172,601	-	831	7,683	222,318	3,401,771	3,517,094	96.7%	5,753
2048	3,401,771	187,119	829	6,582	231,883	3,452,288	3,426,215	100.8%	4,755
2049	3,452,288	330,057	825	-	230,275	3,351,681	3,329,685	100.7%	3,867
2050	3,351,681	327,327	818	-	223,327	3,246,863	3,228,275	100.6%	3,086
2051	3,246,863	323,622	809	-	216,117	3,138,549	3,122,766	100.5%	2,413
2052	3,138,549	318,843	797	-	208,700	3,027,609	3,014,100	100.4%	1,848
2053	3,027,609	312,837	782	-	201,142	2,915,132	2,903,437	100.4%	1,386
2054	2,915,132	306,090	765	-	193,501	2,801,778	2,791,516	100.4%	1,018
2055	2,801,778	298,880	747	-	185,815	2,687,966	2,678,828	100.3%	735
2056	2,687,966	290,659	727	-	178,132	2,574,712	2,566,454	100.3%	522

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM							
DEVELOPMENT OF GASB NOS. 74 AND 75 SINGLE EQUIVALENT DISCOUNT RATE, (\$ IN 000'S)							
BARGAINING UNIT NUMBER 12							
CRAFT AND MAINTENANCE							
20-Year GO Municipal Bond Rate at June 30, 2018		3.620%					
Long-Term Investment Return		7.000%					
Year Plan is Fully Funded		2048					
Single Equivalent Rate		4.010%					
Present Value of Benefits		\$ 5,422,535				\$ 5,422,535	
FYE	Net Employer Benefits	Cross-over Investment Return	Discount Factor	Discounted Benefit Payment	Single Equivalent Return	Discount Factor	Discounted Benefit Payment
2019	\$ 117,974	3.620%	0.98238	\$ 115,895	4.010%	0.98053	\$ 115,677
2020	127,166	3.620%	0.94806	120,561	4.010%	0.94272	119,883
2021	139,527	3.620%	0.91494	127,659	4.010%	0.90637	126,464
2022	151,826	3.620%	0.88297	134,058	4.010%	0.87143	132,305
2023	164,045	3.620%	0.85213	139,787	4.010%	0.83782	137,441
2024	175,751	3.620%	0.82236	144,530	4.010%	0.80552	141,571
2025	186,554	3.620%	0.79363	148,054	4.010%	0.77446	144,479
2026	196,824	3.620%	0.76590	150,748	4.010%	0.74460	146,555
2027	206,376	3.620%	0.73914	152,542	4.010%	0.71589	147,742
2028	215,562	3.620%	0.71332	153,766	4.010%	0.68828	148,368
2029	224,520	3.620%	0.68840	154,560	4.010%	0.66175	148,575
2030	233,570	3.620%	0.66435	155,173	4.010%	0.63623	148,604
2031	242,614	3.620%	0.64114	155,550	4.010%	0.61170	148,406
2032	251,328	3.620%	0.61874	155,508	4.010%	0.58811	147,809
2033	259,938	3.620%	0.59713	155,217	4.010%	0.56543	146,978
2034	268,432	3.620%	0.57627	154,689	4.010%	0.54363	145,928
2035	276,464	3.620%	0.55614	153,752	4.010%	0.52267	144,500
2036	284,029	3.620%	0.53671	152,440	4.010%	0.50252	142,730
2037	291,414	3.620%	0.51796	150,940	4.010%	0.48314	140,794
2038	298,474	3.620%	0.49986	149,196	4.010%	0.46451	138,645
2039	304,928	3.620%	0.48240	147,097	4.010%	0.44660	136,181
2040	310,795	3.620%	0.46555	144,689	4.010%	0.42938	133,449
2041	316,336	3.620%	0.44928	142,124	4.010%	0.41283	130,591
2042	320,890	3.620%	0.43359	139,134	4.010%	0.39691	127,364
2043	324,785	3.620%	0.41844	135,903	4.010%	0.38160	123,939
2044	328,186	3.620%	0.40382	132,528	4.010%	0.36689	120,408
2045	330,432	3.620%	0.38971	128,774	4.010%	0.35274	116,558
2046	331,764	3.620%	0.37610	124,776	4.010%	0.33914	112,515
2047	332,378	3.620%	0.36296	120,640	4.010%	0.32606	108,377
2048	331,771	3.620%	0.35028	116,212	4.010%	0.31349	104,008
2049	330,057	7.000%	0.32736	108,049	4.010%	0.30140	99,481
2050	327,327	7.000%	0.30595	100,145	4.010%	0.28978	94,854
2051	323,622	7.000%	0.28593	92,534	4.010%	0.27861	90,164
2052	318,843	7.000%	0.26723	85,203	4.010%	0.26787	85,407
2053	312,837	7.000%	0.24974	78,129	4.010%	0.25754	80,567
2054	306,090	7.000%	0.23341	71,443	4.010%	0.24761	75,790
2055	298,880	7.000%	0.21814	65,196	4.010%	0.23806	71,151
2065	214,285	7.000%	0.11089	23,762	4.010%	0.16066	34,428
2075	127,863	7.000%	0.05637	7,208	4.010%	0.10843	13,864
2085	44,104	7.000%	0.02866	1,264	4.010%	0.07318	3,227
2095	5,059	7.000%	0.01457	74	4.010%	0.04939	250
2105	116	7.000%	0.00741	1	4.010%	0.03333	4
2115	-	7.000%	0.00376	-	4.010%	0.02249	

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER BARGAINING UNIT NUMBER 12 CRAFT AND MAINTENANCE		
Fiscal Year Ending	June 30, 2017	June 30, 2018
Total OPEB Liability		
Service Cost	\$ 167,689	\$ 146,732
Interest on Total OPEB Liability	154,036	172,744
Changes of Benefit Terms	-	-
Difference between Expected and Actual Experience	-	(359,883)
Changes of Assumptions	(433,966)	(166,573)
Benefit Payments	(110,860)	(116,807)
Net Change in Total OPEB Liability	\$ (223,101)	\$ (323,787)
Total OPEB Liability - Beginning	\$ 4,540,951	\$ 4,317,850
Total OPEB Liability - Ending (a)	\$ 4,317,850	\$ 3,994,063
Plan Fiduciary Net Position		
Employer PayGO Contributions	\$ 110,860	\$ 116,807
Employer Pre Funding Contributions	1,076	8,280
Active Member Contributions	1,076	8,280
Net Investment Income	872	1,051
Benefit Payments	(110,860)	(116,807)
Administrative Expense	(4)	(9)
Other	-	-
Net Change in Plan Fiduciary Net Position	\$ 3,020	\$ 17,602
Plan Fiduciary Net Position - Beginning	\$ 7,186	\$ 10,206
Plan Fiduciary Net Position - Ending (b)	\$ 10,206	\$ 27,808
Net OPEB Liability - Ending (a) - (b)	\$ 4,307,644	\$ 3,966,255
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	0.236%	0.696%
Actuarially Determined Contribution (ADC)	\$ 210,461	\$ 209,603
Employer Contribution	\$ 111,936	\$ 125,087
Percentage of ADC made by Employer	53%	60%
Contribution Excess/(Shortfall)	\$ (98,525)	\$ (84,516)
Expected Return on Assets	\$ 600	\$ 1,335
Investment (Gain)/Loss	\$ (272)	\$ 284
Average Expected Remaining Service	5.773655	6.134782
Blended Discount Rate Beginning of Year	3.310%	3.920%
Blended Discount Rate End of Year	3.920%	4.010%
Long-term Expected Return on Assets	7.280%	7.000%

Individual Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) BARGAINING UNIT NUMBER 12 CRAFT AND MAINTENANCE		
Measured for the Plan's Fiscal Year Ending	June 30, 2017	June 30, 2018
Applicable for the Sponsor's Fiscal Year Ending	June 30, 2018	June 30, 2019
OPEB Expense		
Service Cost	\$ 167,689	\$ 146,732
Interest on the Total OPEB Liability	154,036	172,744
Current-Period Benefit Changes	-	-
Active Member Contributions	(1,076)	(8,280)
Projected Earnings on Plan Investments	(600)	(1,335)
Operating Expenses	4	9
Other Changes in Plan Fiduciary Net Position	-	-
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(58,663)
Recognition of Outflow/(Inflow) due to Assumption Changes	(75,163)	(102,315)
Recognition of Outflow/(Inflow) due to Investment Experience	(55)	3
Net OPEB Expense	\$ 244,835	\$ 148,895
Reconciliation of Net OPEB Liability		
Net OPEB Liability beginning of year	\$ 4,533,765	\$ 4,307,644
OPEB Expense	244,835	148,895
Employer Contributions	(111,936)	(125,087)
Change in Outflow/(Inflow) due to Non-investment Experience	-	(301,220)
Change in Outflow/(Inflow) due to Assumption Changes	(358,803)	(64,258)
Change in Outflow/(Inflow) due to Investment Experience	(217)	281
Net OPEB Liability End of year	\$ 4,307,644	\$ 3,966,255
Deferred (Inflows)		
Non-investment Experience	\$ -	\$ (301,220)
Assumption Changes	\$ (358,803)	\$ (423,061)
Investment Experience	\$ (217)	\$ (164)
Deferred Outflows		
Non-investment Experience	\$ -	\$ -
Assumption Changes	\$ -	\$ -
Investment Experience	\$ -	\$ 227
Net OPEB Liability Sensitivity		
Baseline Discount Rate	3.920%	4.010%
Baseline Discount Rate and 4.5% Ultimate Trend	\$ 4,307,644	\$ 3,966,255
Increase Discount Rate by One Percentage Point	\$ 3,711,953	\$ 3,426,534
Decrease Discount Rate by One Percentage Point	\$ 5,052,582	\$ 4,639,054
Increase Trend Rate by One Percentage Point	\$ 5,097,332	\$ 4,562,862
Decrease Trend Rate by One Percentage Point	\$ 3,683,452	\$ 3,492,470

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES DEFERRED INFLOWS AND OUTFLOWS BARGAINING UNIT NUMBER 12 CRAFT AND MAINTENANCE									
Valuation Date		6/30/2018							
Measurement Date		6/30/2018							
	Non-Investment Experience			Assumption Changes			Investment Experience		
	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization
Plan Year Beginning									
7/1/2016	\$ -	5.773655	\$ -	\$ (433,966)	5.773655	\$ (75,163)	\$ (272)	\$ 5.000000	\$ (54)
7/1/2017	\$ (359,883)	6.134782	\$ (58,663)	\$ (166,573)	6.134782	\$ (27,152)	\$ 284	5.000000	\$ 57
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Current Plan Year End	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2018	\$ -	\$ (58,663)	\$ (58,663)	\$ -	\$ (102,315)	\$ (102,315)	\$ 57	\$ (54)	\$ 3
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Future Plan Years Ending									
6/30/2019	\$ -	\$ (58,663)	\$ (58,663)	\$ -	\$ (102,315)	\$ (102,315)	\$ 57	\$ (54)	\$ 3
6/30/2020	\$ -	\$ (58,663)	\$ (58,663)	\$ -	\$ (102,315)	\$ (102,315)	\$ 57	\$ (54)	\$ 3
6/30/2021	\$ -	\$ (58,663)	\$ (58,663)	\$ -	\$ (102,315)	\$ (102,315)	\$ 57	\$ (56)	\$ 1
6/30/2022	\$ -	\$ (58,663)	\$ (58,663)	\$ -	\$ (85,303)	\$ (85,303)	\$ 56	\$ -	\$ 56
6/30/2023	\$ -	\$ (58,663)	\$ (58,663)	\$ -	\$ (27,152)	\$ (27,152)	\$ -	\$ -	\$ -
6/30/2024	\$ -	\$ (7,905)	\$ (7,905)	\$ -	\$ (3,661)	\$ (3,661)	\$ -	\$ -	\$ -
6/30/2025	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ (301,220)	\$ (301,220)	\$ -	\$ (423,061)	\$ (423,061)	\$ 227	\$ (164)	\$ 63
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2018			\$ (301,220)			\$ (64,258)			\$ 281

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 BARGAINING UNIT NUMBER 13 STATIONARY ENGINEERS		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	950	958
Retired Participants ^a	<u>828</u>	<u>865</u>
Total Participants	1,778	1,823
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 140,258	\$ 133,333
Retired Participants	<u>162,766</u>	<u>168,256</u>
Total Participants	\$ 303,024	\$ 301,589
Actuarial Accrued Liability		
Active Participants	\$ 100,442	\$ 93,193
Retired Participants	<u>162,766</u>	<u>168,256</u>
Total Participants	\$ 263,208	\$ 261,449
Actuarial Value of Assets	\$ -	\$ 1,556
Unfunded Actuarial Accrued Liability	\$ 263,208	\$ 259,893
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 5,659	\$ 5,428
Administrative Expenses	28	29
Amortization of UAAL	<u>14,891</u>	<u>14,933</u>
Total ADC	\$ 20,578	\$ 20,390
Estimated Member Contributions	<u>(711)</u>	<u>(1,364)</u>
Net Employer ADC	\$ 19,867	\$ 19,026
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 7,892	\$ 7,953
Part B Reimbursement	917	1,185
Dental Claims	<u>540</u>	<u>558</u>
Total	\$ 9,349	\$ 9,696
Employer Implicit Costs	<u>1,827</u>	<u>1,773</u>
Total Employer Costs	\$ 11,176	\$ 11,469
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 325	\$ 664
Dental Claims	<u>168</u>	<u>174</u>
Total	\$ 493	\$ 838
Total Claims Costs	\$ 11,669	\$ 12,307

^aRetired participants with dental only coverage, 61 as of July 1, 2017, and 65 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING PROJECTIONS BASED ON JULY 1, 2018, ACTUARIAL VALUATION (\$ IN 000'S) BARGAINING UNIT NUMBER 13 STATIONARY ENGINEERS									
Fiscal Year Beginning		7/1/2018							
Long-term Asset Return		7.000%							
Discount Rate		7.000%							
Year Plan is Fully Funded		2048							
FYE	Assets (boy)	Disbursements/ Benefits	Administrative Expenses	Pre-Fund Contribution	Investment Income	Assets (eoy)	Accrued Liability (eoy)	Funded Ratio	Normal Cost
2018	\$ -	\$ -	\$ 1	\$ 1,536	\$ 21	\$ 1,556	\$ 261,449	0.6%	\$ 5,428
2019	1,556	-	29	2,728	202	4,457	273,688	1.6%	5,135
2020	4,457	-	31	3,875	444	8,745	285,470	3.1%	4,847
2021	8,745	-	34	4,882	779	14,372	296,467	4.8%	4,551
2022	14,372	-	37	4,588	1,163	20,086	306,653	6.5%	4,254
2023	20,086	-	40	4,294	1,552	25,892	315,954	8.2%	3,964
2024	25,892	-	43	4,008	1,949	31,806	324,312	9.8%	3,681
2025	31,806	-	46	3,727	2,353	37,840	331,746	11.4%	3,399
2026	37,840	-	49	3,448	2,766	44,005	338,185	13.0%	3,121
2027	44,005	-	52	3,173	3,188	50,314	343,725	14.6%	2,853
2028	50,314	-	54	2,908	3,620	56,788	348,391	16.3%	2,600
2029	56,788	-	57	2,657	4,064	63,452	352,074	18.0%	2,362
2030	63,452	-	59	2,421	4,523	70,337	354,839	19.8%	2,142
2031	70,337	-	61	2,203	4,997	77,476	356,771	21.7%	1,942
2032	77,476	-	63	2,005	5,490	84,908	357,744	23.7%	1,755
2033	84,908	-	65	1,820	6,004	92,667	357,707	25.9%	1,575
2034	92,667	-	67	1,642	6,541	100,783	356,700	28.3%	1,407
2035	100,783	-	69	1,476	7,103	109,293	354,720	30.8%	1,250
2036	109,293	-	71	1,320	7,693	118,235	351,695	33.6%	1,104
2037	118,235	-	72	1,176	8,314	127,653	347,664	36.7%	973
2038	127,653	-	73	1,046	8,969	137,595	342,681	40.2%	854
2039	137,595	-	74	928	9,661	148,110	336,776	44.0%	744
2040	148,110	-	75	819	10,393	159,247	329,906	48.3%	641
2041	159,247	-	76	717	11,169	171,057	322,127	53.1%	548
2042	171,057	-	77	625	11,993	183,598	313,565	58.6%	464
2043	183,598	-	77	541	12,868	196,930	304,229	64.7%	389
2044	196,930	-	77	466	13,798	211,117	294,227	71.8%	324
2045	211,117	-	76	400	14,789	226,230	283,712	79.7%	265
2046	226,230	-	75	341	15,845	242,341	272,748	88.9%	213
2047	242,341	-	74	287	16,971	259,525	261,434	99.3%	168
2048	259,525	26,041	73	241	17,276	250,928	249,878	100.4%	130
2049	250,928	28,399	71	-	16,585	239,043	238,129	100.4%	99
2050	239,043	27,648	69	-	15,779	227,105	226,301	100.4%	75
2051	227,105	26,769	67	-	14,974	215,243	214,529	100.3%	56
2052	215,243	25,858	65	-	14,175	203,495	202,854	100.3%	41
2053	203,495	24,898	62	-	13,386	191,921	191,340	100.3%	30
2054	191,921	23,851	60	-	12,612	180,622	180,092	100.3%	22
2055	180,622	22,824	57	-	11,856	169,597	169,109	100.3%	15
2056	169,597	21,785	54	-	11,120	158,878	158,427	100.3%	10

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM								
DEVELOPMENT OF GASB NOS. 74 AND 75 SINGLE EQUIVALENT DISCOUNT RATE, (\$ IN 000'S)								
BARGAINING UNIT NUMBER 13								
STATIONARY ENGINEERS								
20-Year GO Municipal Bond Rate at June 30, 2018			3.620%					
Long-Term Investment Return			7.000%					
Year Plan is Fully Funded			2048					
Single Equivalent Rate			3.906%					
Present Value of Benefits			\$ 500,486			\$ 500,486		
FYE	Net Employer Benefits		Cross-over Investment Return	Discount Factor	Discounted Benefit Payment	Single Equivalent Return	Discount Factor	Discounted Benefit Payment
2019	\$ 11,469		3.620%	0.98238	\$ 11,267	3.906%	0.98103	\$ 11,251
2020	12,436		3.620%	0.94806	11,790	3.906%	0.94415	11,741
2021	13,695		3.620%	0.91494	12,530	3.906%	0.90866	12,444
2022	14,916		3.620%	0.88297	13,170	3.906%	0.87451	13,044
2023	16,153		3.620%	0.85213	13,764	3.906%	0.84163	13,595
2024	17,394		3.620%	0.82236	14,304	3.906%	0.81000	14,089
2025	18,560		3.620%	0.79363	14,730	3.906%	0.77955	14,468
2026	19,734		3.620%	0.76590	15,114	3.906%	0.75025	14,805
2027	20,751		3.620%	0.73914	15,338	3.906%	0.72205	14,983
2028	21,694		3.620%	0.71332	15,475	3.906%	0.69491	15,075
2029	22,697		3.620%	0.68840	15,625	3.906%	0.66879	15,180
2030	23,588		3.620%	0.66435	15,671	3.906%	0.64365	15,182
2031	24,353		3.620%	0.64114	15,613	3.906%	0.61945	15,085
2032	25,203		3.620%	0.61874	15,594	3.906%	0.59617	15,025
2033	26,051		3.620%	0.59713	15,556	3.906%	0.57376	14,947
2034	26,802		3.620%	0.57627	15,445	3.906%	0.55219	14,800
2035	27,499		3.620%	0.55614	15,293	3.906%	0.53144	14,614
2036	28,214		3.620%	0.53671	15,142	3.906%	0.51146	14,430
2037	28,831		3.620%	0.51796	14,933	3.906%	0.49224	14,192
2038	29,343		3.620%	0.49986	14,668	3.906%	0.47373	13,901
2039	29,774		3.620%	0.48240	14,363	3.906%	0.45593	13,575
2040	30,193		3.620%	0.46555	14,056	3.906%	0.43879	13,248
2041	30,501		3.620%	0.44928	13,704	3.906%	0.42229	12,880
2042	30,636		3.620%	0.43359	13,283	3.906%	0.40642	12,451
2043	30,718		3.620%	0.41844	12,854	3.906%	0.39114	12,015
2044	30,653		3.620%	0.40382	12,378	3.906%	0.37644	11,539
2045	30,405		3.620%	0.38971	11,849	3.906%	0.36229	11,015
2046	30,067		3.620%	0.37610	11,308	3.906%	0.34867	10,484
2047	29,611		3.620%	0.36296	10,748	3.906%	0.33557	9,936
2048	29,031		3.620%	0.35028	10,169	3.906%	0.32295	9,376
2049	28,399		7.000%	0.32736	9,297	3.906%	0.31081	8,827
2050	27,648		7.000%	0.30595	8,459	3.906%	0.29913	8,270
2051	26,769		7.000%	0.28593	7,654	3.906%	0.28789	7,706
2052	25,858		7.000%	0.26723	6,910	3.906%	0.27707	7,164
2053	24,898		7.000%	0.24974	6,218	3.906%	0.26665	6,639
2054	23,851		7.000%	0.23341	5,567	3.906%	0.25663	6,121
2055	22,824		7.000%	0.21814	4,979	3.906%	0.24698	5,637
2065	12,895		7.000%	0.11089	1,430	3.906%	0.16837	2,171
2075	5,657		7.000%	0.05637	319	3.906%	0.11478	649
2085	1,332		7.000%	0.02866	38	3.906%	0.07825	104
2095	96		7.000%	0.01457	1	3.906%	0.05334	5
2105	1		7.000%	0.00741	-	3.906%	0.03637	-
2115	-		7.000%	0.00376	-	3.906%	0.02479	-

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER BARGAINING UNIT NUMBER 13 STATIONARY ENGINEERS		
Fiscal Year Ending	June 30, 2017	June 30, 2018
Total OPEB Liability		
Service Cost	\$ 14,669	\$ 12,821
Interest on Total OPEB Liability	14,564	16,406
Changes of Benefit Terms	-	-
Difference between Expected and Actual Experience	-	(27,228)
Changes of Assumptions	(44,093)	(15,965)
Benefit Payments	(10,675)	(11,190)
Net Change in Total OPEB Liability	\$ (25,535)	\$ (25,156)
Total OPEB Liability - Beginning	\$ 447,182	\$ 421,647
Total OPEB Liability - Ending (a)	\$ 421,647	\$ 396,491
Plan Fiduciary Net Position		
Employer PayGO Contributions	\$ 10,675	\$ 11,190
Employer Pre Funding Contributions	-	768
Active Member Contributions	-	768
Net Investment Income	-	21
Benefit Payments	(10,675)	(11,190)
Administrative Expense	-	(1)
Other	-	-
Net Change in Plan Fiduciary Net Position	\$ -	\$ 1,556
Plan Fiduciary Net Position - Beginning	\$ -	\$ -
Plan Fiduciary Net Position - Ending (b)	\$ -	\$ 1,556
Net OPEB Liability - Ending (a) - (b)	\$ 421,647	\$ 394,935
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	0.000%	0.392%
Actuarially Determined Contribution (ADC)	\$ 19,979	\$ 19,810
Employer Contribution	\$ 10,675	\$ 11,958
Percentage of ADC made by Employer	53%	60%
Contribution Excess/(Shortfall)	\$ (9,304)	\$ (7,852)
Expected Return on Assets	\$ -	\$ 55
Investment (Gain)/Loss	\$ -	\$ 34
Average Expected Remaining Service	4.408263	4.574619
Blended Discount Rate Beginning of Year	3.190%	3.825%
Blended Discount Rate End of Year	3.825%	3.906%
Long-term Expected Return on Assets	7.280%	7.000%

Individual Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) BARGAINING UNIT NUMBER 13 STATIONARY ENGINEERS		
Measured for the Plan's Fiscal Year Ending	June 30, 2017	June 30, 2018
Applicable for the Sponsor's Fiscal Year Ending	June 30, 2018	June 30, 2019
OPEB Expense		
Service Cost	\$ 14,669	\$ 12,821
Interest on the Total OPEB Liability	14,564	16,406
Current-Period Benefit Changes	-	-
Active Member Contributions	-	(768)
Projected Earnings on Plan Investments	-	(55)
Operating Expenses	-	1
Other Changes in Plan Fiduciary Net Position	-	-
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(5,952)
Recognition of Outflow/(Inflow) due to Assumption Changes	(10,002)	(13,492)
Recognition of Outflow/(Inflow) due to Investment Experience	-	7
Net OPEB Expense	\$ 19,231	\$ 8,968
Reconciliation of Net OPEB Liability		
Net OPEB Liability beginning of year	\$ 447,182	\$ 421,647
OPEB Expense	19,231	8,968
Employer Contributions	(10,675)	(11,958)
Change in Outflow/(Inflow) due to Non-investment Experience	-	(21,276)
Change in Outflow/(Inflow) due to Assumption Changes	(34,091)	(2,473)
Change in Outflow/(Inflow) due to Investment Experience	-	27
Net OPEB Liability End of year	\$ 421,647	\$ 394,935
Deferred (Inflows)		
Non-investment Experience	\$ -	\$ (21,276)
Assumption Changes	\$ (34,091)	\$ (36,564)
Investment Experience	\$ -	\$ -
Deferred Outflows		
Non-investment Experience	\$ -	\$ -
Assumption Changes	\$ -	\$ -
Investment Experience	\$ -	\$ 27
Net OPEB Liability Sensitivity		
Baseline Discount Rate	3.825%	3.906%
Baseline Discount Rate and 4.5% Ultimate Trend	\$ 421,647	\$ 394,935
Increase Discount Rate by One Percentage Point	\$ 363,611	\$ 341,623
Decrease Discount Rate by One Percentage Point	\$ 494,123	\$ 461,264
Increase Trend Rate by One Percentage Point	\$ 496,934	\$ 452,509
Decrease Trend Rate by One Percentage Point	\$ 361,574	\$ 348,676

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES DEFERRED INFLOWS AND OUTFLOWS BARGAINING UNIT NUMBER 13 STATIONARY ENGINEERS									
Valuation Date		6/30/2018							
Measurement Date		6/30/2018							
	Non-Investment Experience			Assumption Changes			Investment Experience		
	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization
Plan Year Beginning									
7/1/2016	\$ -	4.408263	\$ -	\$ (44,093)	4.408263	\$ (10,002)	\$ -	\$ 5.000000	\$ -
7/1/2017	\$ (27,228)	4.574619	\$ (5,952)	\$ (15,965)	4.574619	\$ (3,490)	\$ 34	5.000000	\$ 7
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Current Plan Year End	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2018	\$ -	\$ (5,952)	\$ (5,952)	\$ -	\$ (13,492)	\$ (13,492)	\$ 7	\$ -	\$ 7
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Future Plan Years Ending									
6/30/2019	\$ -	\$ (5,952)	\$ (5,952)	\$ -	\$ (13,492)	\$ (13,492)	\$ 7	\$ -	\$ 7
6/30/2020	\$ -	\$ (5,952)	\$ (5,952)	\$ -	\$ (13,492)	\$ (13,492)	\$ 7	\$ -	\$ 7
6/30/2021	\$ -	\$ (5,952)	\$ (5,952)	\$ -	\$ (7,575)	\$ (7,575)	\$ 7	\$ -	\$ 7
6/30/2022	\$ -	\$ (3,420)	\$ (3,420)	\$ -	\$ (2,005)	\$ (2,005)	\$ 6	\$ -	\$ 6
6/30/2023	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2024	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2025	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ (21,276)	\$ (21,276)	\$ -	\$ (36,564)	\$ (36,564)	\$ 27	\$ -	\$ 27
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2018			\$ (21,276)			\$ (2,473)			\$ 27

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 BARGAINING UNIT NUMBER 14 PRINTING AND ALLIED TRADES		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	398	387
Retired Participants ^a	<u>493</u>	<u>491</u>
Total Participants	891	878
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 55,892	\$ 51,108
Retired Participants	<u>72,915</u>	<u>71,822</u>
Total Participants	\$ 128,807	\$ 122,930
Actuarial Accrued Liability		
Active Participants	\$ 40,635	\$ 36,475
Retired Participants	<u>72,915</u>	<u>71,822</u>
Total Participants	\$ 113,550	\$ 108,297
Actuarial Value of Assets	\$ -	\$ -
Unfunded Actuarial Accrued Liability	\$ 113,550	\$ 108,297
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 1,936	\$ 1,759
Administrative Expenses	13	14
Amortization of UAAL	<u>6,424</u>	<u>6,222</u>
Total ADC	\$ 8,373	\$ 7,995
Estimated Member Contributions	<u>-</u>	<u>(222)</u>
Net Employer ADC	\$ 8,373	\$ 7,773
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 3,617	\$ 3,578
Part B Reimbursement	648	764
Dental Claims	<u>287</u>	<u>282</u>
Total	\$ 4,552	\$ 4,624
Employer Implicit Costs	<u>804</u>	<u>864</u>
Total Employer Costs	\$ 5,356	\$ 5,488
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 96	\$ 143
Dental Claims	<u>89</u>	<u>87</u>
Total	\$ 185	\$ 230
Total Claims Costs	\$ 5,541	\$ 5,718

^aRetired participants with dental only coverage, 20 as of July 1, 2017, and 20 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING PROJECTIONS BASED ON JULY 1, 2018, ACTUARIAL VALUATION (\$ IN 000'S) BARGAINING UNIT NUMBER 14 PRINTING AND ALLIED TRADES									
Fiscal Year Beginning		7/1/2018							
Long-term Asset Return		7.000%							
Discount Rate		7.000%							
Year Plan is Fully Funded		2050							
FYE	Assets (boy)	Disbursements/ Benefits	Administrative Expenses	Pre-Fund Contribution	Investment Income	Assets (eoy)	Accrued Liability (eoy)	Funded Ratio	Normal Cost
2018	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 108,297	0.0%	\$ 1,759
2019	-	-	14	443	15	444	112,081	0.4%	1,689
2020	444	-	15	852	60	1,341	115,693	1.2%	1,619
2021	1,341	-	16	1,226	136	2,687	119,039	2.3%	1,548
2022	2,687	-	17	1,565	241	4,476	122,102	3.7%	1,473
2023	4,476	-	18	1,491	364	6,313	124,873	5.1%	1,397
2024	6,313	-	19	1,416	490	8,200	127,363	6.4%	1,321
2025	8,200	-	20	1,341	620	10,141	129,616	7.8%	1,249
2026	10,141	-	20	1,269	753	12,143	131,604	9.2%	1,174
2027	12,143	-	21	1,195	890	14,207	133,349	10.7%	1,100
2028	14,207	-	22	1,121	1,032	16,338	134,826	12.1%	1,028
2029	16,338	-	23	1,051	1,179	18,545	136,008	13.6%	958
2030	18,545	-	23	982	1,331	20,835	136,904	15.2%	888
2031	20,835	-	24	912	1,489	23,212	137,506	16.9%	820
2032	23,212	-	25	845	1,653	25,685	137,762	18.6%	754
2033	25,685	-	25	780	1,824	28,264	137,716	20.5%	692
2034	28,264	-	26	718	2,002	30,958	137,351	22.5%	637
2035	30,958	-	27	663	2,189	33,783	136,647	24.7%	585
2036	33,783	-	27	612	2,385	36,753	135,650	27.1%	537
2037	36,753	-	27	564	2,592	39,882	134,370	29.7%	492
2038	39,882	-	28	520	2,809	43,183	132,787	32.5%	449
2039	43,183	-	28	477	3,039	46,671	130,937	35.6%	406
2040	46,671	-	28	434	3,281	50,358	128,875	39.1%	364
2041	50,358	-	28	392	3,538	54,260	126,543	42.9%	322
2042	54,260	-	29	351	3,810	58,392	123,936	47.1%	282
2043	58,392	-	29	311	4,097	62,771	121,086	51.8%	245
2044	62,771	-	28	273	4,403	67,419	118,033	57.1%	209
2045	67,419	-	28	237	4,727	72,355	114,799	63.0%	174
2046	72,355	-	28	203	5,071	77,601	111,333	69.7%	143
2047	77,601	-	28	171	5,437	83,181	107,682	77.3%	115
2048	83,181	-	28	143	5,827	89,123	103,895	85.8%	91
2049	89,123	-	27	118	6,242	95,456	99,951	95.5%	70
2050	95,456	5,700	27	97	6,488	96,314	95,916	100.4%	52
2051	96,314	10,484	26	-	6,381	92,185	91,841	100.4%	38
2052	92,185	10,220	26	-	6,101	88,040	87,738	100.3%	27
2053	88,040	9,902	25	-	5,821	83,934	83,666	100.3%	19
2054	83,934	9,574	24	-	5,545	79,881	79,639	100.3%	14
2055	79,881	9,212	23	-	5,274	75,920	75,699	100.3%	9
2056	75,920	8,846	22	-	5,010	72,062	71,857	100.3%	6

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM
DEVELOPMENT OF GASB NOS. 74 AND 75 SINGLE EQUIVALENT DISCOUNT RATE, (\$ IN 000'S)
BARGAINING UNIT NUMBER 14
PRINTING AND ALLIED TRADES

Present Value of Benefits	\$	203,570	\$	203,570
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Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER BARGAINING UNIT NUMBER 14 PRINTING AND ALLIED TRADES		
Fiscal Year Ending	June 30, 2017	June 30, 2018
Total OPEB Liability		
Service Cost	\$ 5,427	\$ 4,693
Interest on Total OPEB Liability	6,147	6,902
Changes of Benefit Terms	-	-
Difference between Expected and Actual Experience	-	(17,009)
Changes of Assumptions	(18,093)	(6,414)
Benefit Payments	(5,117)	(5,454)
Net Change in Total OPEB Liability	\$ (11,636)	\$ (17,282)
Total OPEB Liability - Beginning	\$ 190,845	\$ 179,209
Total OPEB Liability - Ending (a)	\$ 179,209	\$ 161,927
Plan Fiduciary Net Position		
Employer PayGO Contributions	\$ 5,117	\$ 5,454
Employer Pre Funding Contributions	-	-
Active Member Contributions	-	-
Net Investment Income	-	-
Benefit Payments	(5,117)	(5,454)
Administrative Expense	-	-
Other	-	-
Net Change in Plan Fiduciary Net Position	\$ -	\$ -
Plan Fiduciary Net Position - Beginning	\$ -	\$ -
Plan Fiduciary Net Position - Ending (b)	\$ -	\$ -
Net OPEB Liability - Ending (a) - (b)	\$ 179,209	\$ 161,927
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	0.000%	0.000%
Actuarially Determined Contribution (ADC)	\$ 8,129	\$ 8,373
Employer Contribution	\$ 5,117	\$ 5,454
Percentage of ADC made by Employer	63%	65%
Contribution Excess/(Shortfall)	\$ (3,012)	\$ (2,919)
Expected Return on Assets	\$ -	\$ -
Investment (Gain)/Loss	\$ -	\$ -
Average Expected Remaining Service	4.274357	4.458247
Blended Discount Rate Beginning of Year	3.173%	3.809%
Blended Discount Rate End of Year	3.809%	3.885%
Long-term Expected Return on Assets	7.280%	7.000%

Individual Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) BARGAINING UNIT NUMBER 14 PRINTING AND ALLIED TRADES		
Measured for the Plan's Fiscal Year Ending Applicable for the Sponsor's Fiscal Year Ending	June 30, 2017 June 30, 2018	June 30, 2018 June 30, 2019
OPEB Expense		
Service Cost	\$ 5,427	\$ 4,693
Interest on the Total OPEB Liability	6,147	6,902
Current-Period Benefit Changes	-	-
Active Member Contributions	-	-
Projected Earnings on Plan Investments	-	-
Operating Expenses	-	-
Other Changes in Plan Fiduciary Net Position	-	-
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(3,815)
Recognition of Outflow/(Inflow) due to Assumption Changes	(4,233)	(5,672)
Recognition of Outflow/(Inflow) due to Investment Experience	-	-
Net OPEB Expense	\$ 7,341	\$ 2,108
Reconciliation of Net OPEB Liability		
Net OPEB Liability beginning of year	\$ 190,845	\$ 179,209
OPEB Expense	7,341	2,108
Employer Contributions	(5,117)	(5,454)
Change in Outflow/(Inflow) due to Non-investment Experience	-	(13,194)
Change in Outflow/(Inflow) due to Assumption Changes	(13,860)	(742)
Change in Outflow/(Inflow) due to Investment Experience	-	-
Net OPEB Liability End of year	\$ 179,209	\$ 161,927
Deferred (Inflows)		
Non-investment Experience	\$ -	\$ (13,194)
Assumption Changes	\$ (13,860)	\$ (14,602)
Investment Experience	\$ -	\$ -
Deferred Outflows		
Non-investment Experience	\$ -	\$ -
Assumption Changes	\$ -	\$ -
Investment Experience	\$ -	\$ -
Net OPEB Liability Sensitivity		
Baseline Discount Rate	3.809%	3.885%
Baseline Discount Rate and 4.5% Ultimate Trend	\$ 179,209	\$ 161,927
Increase Discount Rate by One Percentage Point	\$ 155,344	\$ 140,945
Decrease Discount Rate by One Percentage Point	\$ 208,870	\$ 187,901
Increase Trend Rate by One Percentage Point	\$ 210,389	\$ 184,458
Decrease Trend Rate by One Percentage Point	\$ 154,397	\$ 143,891

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES DEFERRED INFLOWS AND OUTFLOWS BARGAINING UNIT NUMBER 14 PRINTING AND ALLIED TRADES									
Valuation Date		6/30/2018							
Measurement Date		6/30/2018							
	Non-Investment Experience			Assumption Changes			Investment Experience		
	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization
Plan Year Beginning									
7/1/2016	\$ -	4.274357	\$ -	\$ (18,093)	4.274357	\$ (4,233)	\$ -	5.000000	\$ -
7/1/2017	\$ (17,009)	4.458247	\$ (3,815)	\$ (6,414)	4.458247	\$ (1,439)	\$ -	5.000000	\$ -
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Current Plan Year End	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2018	\$ -	\$ (3,815)	\$ (3,815)	\$ -	\$ (5,672)	\$ (5,672)	\$ -	\$ -	\$ -
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Future Plan Years Ending									
6/30/2019	\$ -	\$ (3,815)	\$ (3,815)	\$ -	\$ (5,672)	\$ (5,672)	\$ -	\$ -	\$ -
6/30/2020	\$ -	\$ (3,815)	\$ (3,815)	\$ -	\$ (5,672)	\$ (5,672)	\$ -	\$ -	\$ -
6/30/2021	\$ -	\$ (3,815)	\$ (3,815)	\$ -	\$ (2,600)	\$ (2,600)	\$ -	\$ -	\$ -
6/30/2022	\$ -	\$ (1,749)	\$ (1,749)	\$ -	\$ (658)	\$ (658)	\$ -	\$ -	\$ -
6/30/2023	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2024	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2025	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ (13,194)	\$ (13,194)	\$ -	\$ (14,602)	\$ (14,602)	\$ -	\$ -	\$ -
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2018			\$ (13,194)			\$ (742)			\$ -

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 BARGAINING UNIT NUMBER 15 ALLIED SERVICES		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	5,243	5,172
Retired Participants ^a	<u>2,876</u>	<u>2,966</u>
Total Participants	8,119	8,138
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 582,726	\$ 556,029
Retired Participants	<u>422,145</u>	<u>421,258</u>
Total Participants	\$ 1,004,871	\$ 977,287
Actuarial Accrued Liability		
Active Participants	\$ 359,213	\$ 340,213
Retired Participants	<u>422,145</u>	<u>421,258</u>
Total Participants	\$ 781,358	\$ 761,471
Actuarial Value of Assets	\$ -	\$ -
Unfunded Actuarial Accrued Liability	\$ 781,358	\$ 761,471
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 27,191	\$ 24,912
Administrative Expenses	76	77
Amortization of UAAL	<u>44,205</u>	<u>43,752</u>
Total ADC	\$ 71,472	\$ 68,741
Estimated Member Contributions	-	<u>(3,124)</u>
Net Employer ADC	\$ 71,472	\$ 65,617
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 21,581	\$ 21,264
Part B Reimbursement	3,183	3,850
Dental Claims	<u>1,617</u>	<u>1,624</u>
Total	\$ 26,381	\$ 26,738
Employer Implicit Costs	<u>3,894</u>	<u>4,226</u>
Total Employer Costs	\$ 30,275	\$ 30,964
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 700	\$ 1,559
Dental Claims	<u>475</u>	<u>478</u>
Total	\$ 1,175	\$ 2,037
Total Claims Costs	\$ 31,450	\$ 33,001

^aRetired participants with dental only coverage, 391 as of July 1, 2017, and 398 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING PROJECTIONS BASED ON JULY 1, 2018, ACTUARIAL VALUATION (\$ IN 000'S) BARGAINING UNIT NUMBER 15 ALLIED SERVICES									
Fiscal Year Beginning		7/1/2018							
Long-term Asset Return		7.000%							
Discount Rate		7.000%							
Year Plan is Fully Funded		2048							
FYE	Assets (boy)	Disbursements/ Benefits	Administrative Expenses	Pre-Fund Contribution	Investment Income	Assets (eoy)	Accrued Liability (eoy)	Funded Ratio	Normal Cost
2018	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 761,471	0.0%	\$ 24,912
2019	-	-	77	6,247	212	6,382	809,384	0.8%	23,954
2020	6,382	-	84	12,019	857	19,174	856,827	2.2%	23,058
2021	19,174	-	94	17,364	1,936	38,380	902,742	4.3%	22,135
2022	38,380	-	103	22,238	3,448	63,963	946,964	6.8%	21,187
2023	63,963	-	113	21,299	5,207	90,356	989,344	9.1%	20,212
2024	90,356	-	122	20,333	7,020	117,587	1,029,810	11.4%	19,213
2025	117,587	-	131	19,344	8,892	145,692	1,068,235	13.6%	18,209
2026	145,692	-	140	18,348	10,825	174,725	1,104,689	15.8%	17,207
2027	174,725	-	148	17,355	12,823	204,755	1,139,231	18.0%	16,206
2028	204,755	-	156	16,362	14,891	235,852	1,171,797	20.1%	15,224
2029	235,852	-	164	15,388	17,034	268,110	1,202,120	22.3%	14,287
2030	268,110	-	172	14,460	19,260	301,658	1,230,200	24.5%	13,390
2031	301,658	-	180	13,570	21,577	336,625	1,256,101	26.8%	12,530
2032	336,625	-	188	12,718	23,995	373,150	1,279,636	29.2%	11,707
2033	373,150	-	196	11,904	26,524	411,382	1,300,565	31.6%	10,906
2034	411,382	-	204	11,110	29,172	451,460	1,318,798	34.2%	10,133
2035	451,460	-	212	10,345	31,951	493,544	1,334,282	37.0%	9,403
2036	493,544	-	220	9,622	34,872	537,818	1,346,811	39.9%	8,710
2037	537,818	-	228	8,938	37,947	584,475	1,356,216	43.1%	8,050
2038	584,475	-	235	8,285	41,190	633,715	1,362,527	46.5%	7,418
2039	633,715	-	242	7,660	44,615	685,748	1,365,536	50.2%	6,818
2040	685,748	-	249	7,067	48,237	740,803	1,365,320	54.3%	6,252
2041	740,803	-	255	6,507	52,072	799,127	1,361,957	58.7%	5,705
2042	799,127	-	261	5,966	56,135	860,967	1,355,283	63.5%	5,173
2043	860,967	-	267	5,440	60,446	926,586	1,345,341	68.9%	4,657
2044	926,586	-	271	4,928	65,021	996,264	1,332,272	74.8%	4,154
2045	996,264	-	275	4,429	69,882	1,070,300	1,315,995	81.3%	3,662
2046	1,070,300	-	279	3,941	75,047	1,149,009	1,296,558	88.6%	3,185
2047	1,149,009	-	282	3,466	80,540	1,232,733	1,274,075	96.8%	2,730
2048	1,232,733	59,231	284	3,014	84,347	1,260,579	1,248,571	101.0%	2,307
2049	1,260,579	114,193	285	-	84,302	1,230,403	1,220,308	100.8%	1,918
2050	1,230,403	114,228	286	-	82,188	1,198,077	1,189,615	100.7%	1,566
2051	1,198,077	113,976	285	-	79,934	1,163,750	1,156,657	100.6%	1,252
2052	1,163,750	113,195	283	-	77,558	1,127,830	1,121,865	100.5%	978
2053	1,127,830	111,871	280	-	75,089	1,090,768	1,085,716	100.5%	745
2054	1,090,768	110,296	276	-	72,550	1,052,746	1,048,417	100.4%	554
2055	1,052,746	108,226	271	-	69,959	1,014,208	1,010,444	100.4%	403
2056	1,014,208	105,656	264	-	67,350	975,638	972,310	100.3%	288

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM							
DEVELOPMENT OF GASB NOS. 74 AND 75 SINGLE EQUIVALENT DISCOUNT RATE, (\$ IN 000'S)							
BARGAINING UNIT NUMBER 15							
ALLIED SERVICES							
20-Year GO Municipal Bond Rate at June 30, 2018				3.620%			
Long-Term Investment Return				7.000%			
Year Plan is Fully Funded				2048			
Single Equivalent Rate				4.058%			
Present Value of Benefits				\$ 1,714,275		\$ 1,714,275	
FYE	Net Employer Benefits	Cross-over Investment Return	Discount Factor	Discounted Benefit Payment	Single Equivalent Return	Discount Factor	Discounted Benefit Payment
2019	\$ 30,964	3.620%	0.98238	\$ 30,417	4.058%	0.98031	\$ 30,353
2020	33,668	3.620%	0.94806	31,919	4.058%	0.94207	31,718
2021	37,429	3.620%	0.91494	34,246	4.058%	0.90533	33,886
2022	41,217	3.620%	0.88297	36,393	4.058%	0.87003	35,859
2023	45,009	3.620%	0.85213	38,353	4.058%	0.83609	37,632
2024	48,718	3.620%	0.82236	40,063	4.058%	0.80349	39,144
2025	52,397	3.620%	0.79363	41,584	4.058%	0.77215	40,458
2026	55,863	3.620%	0.76590	42,785	4.058%	0.74204	41,452
2027	59,143	3.620%	0.73914	43,715	4.058%	0.71310	42,175
2028	62,355	3.620%	0.71332	44,479	4.058%	0.68529	42,731
2029	65,711	3.620%	0.68840	45,236	4.058%	0.65856	43,275
2030	68,962	3.620%	0.66435	45,815	4.058%	0.63288	43,645
2031	72,041	3.620%	0.64114	46,189	4.058%	0.60819	43,815
2032	75,191	3.620%	0.61874	46,524	4.058%	0.58447	43,947
2033	78,453	3.620%	0.59713	46,847	4.058%	0.56168	44,065
2034	81,647	3.620%	0.57627	47,050	4.058%	0.53977	44,071
2035	84,740	3.620%	0.55614	47,127	4.058%	0.51872	43,956
2036	87,889	3.620%	0.53671	47,171	4.058%	0.49849	43,812
2037	91,040	3.620%	0.51796	47,155	4.058%	0.47905	43,613
2038	93,985	3.620%	0.49986	46,980	4.058%	0.46037	43,268
2039	96,950	3.620%	0.48240	46,769	4.058%	0.44241	42,892
2040	99,654	3.620%	0.46555	46,393	4.058%	0.42516	42,369
2041	102,094	3.620%	0.44928	45,869	4.058%	0.40858	41,713
2042	104,505	3.620%	0.43359	45,312	4.058%	0.39264	41,033
2043	106,661	3.620%	0.41844	44,631	4.058%	0.37733	40,247
2044	108,479	3.620%	0.40382	43,806	4.058%	0.36262	39,336
2045	110,176	3.620%	0.38971	42,937	4.058%	0.34847	38,393
2046	111,621	3.620%	0.37610	41,981	4.058%	0.33488	37,380
2047	112,758	3.620%	0.36296	40,927	4.058%	0.32182	36,288
2048	113,687	3.620%	0.35028	39,822	4.058%	0.30927	35,160
2049	114,193	7.000%	0.32736	37,382	4.058%	0.29721	33,939
2050	114,228	7.000%	0.30595	34,948	4.058%	0.28562	32,626
2051	113,976	7.000%	0.28593	32,589	4.058%	0.27448	31,284
2052	113,195	7.000%	0.26723	30,249	4.058%	0.26377	29,858
2053	111,871	7.000%	0.24974	27,939	4.058%	0.25349	28,358
2054	110,296	7.000%	0.23341	25,744	4.058%	0.24360	26,868
2055	108,226	7.000%	0.21814	23,608	4.058%	0.23410	25,336
2065	80,258	7.000%	0.11089	8,900	4.058%	0.15727	12,622
2075	52,498	7.000%	0.05637	2,959	4.058%	0.10565	5,546
2085	20,802	7.000%	0.02866	596	4.058%	0.07097	1,476
2095	2,782	7.000%	0.01457	41	4.058%	0.04768	133
2105	110	7.000%	0.00741	1	4.058%	0.03203	4
2115	6	7.000%	0.00376	-	4.058%	0.02152	

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER BARGAINING UNIT NUMBER 15 ALLIED SERVICES		
Fiscal Year Ending	June 30, 2017	June 30, 2018
Total OPEB Liability		
Service Cost	\$ 67,499	\$ 59,602
Interest on Total OPEB Liability	45,164	51,170
Changes of Benefit Terms	-	-
Difference between Expected and Actual Experience	-	(131,376)
Changes of Assumptions	(125,145)	(45,006)
Benefit Payments	(28,919)	(30,721)
Net Change in Total OPEB Liability	\$ (41,401)	\$ (96,331)
Total OPEB Liability - Beginning	\$ 1,284,629	\$ 1,243,228
Total OPEB Liability - Ending (a)	\$ 1,243,228	\$ 1,146,897
Plan Fiduciary Net Position		
Employer PayGO Contributions	\$ 28,919	\$ 30,721
Employer Pre Funding Contributions	-	-
Active Member Contributions	-	-
Net Investment Income	-	-
Benefit Payments	(28,919)	(30,721)
Administrative Expense	-	-
Other	-	-
Net Change in Plan Fiduciary Net Position	\$ -	\$ -
Plan Fiduciary Net Position - Beginning	\$ -	\$ -
Plan Fiduciary Net Position - Ending (b)	\$ -	\$ -
Net OPEB Liability - Ending (a) - (b)	\$ 1,243,228	\$ 1,146,897
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	0.000%	0.000%
Actuarially Determined Contribution (ADC)	\$ 69,390	\$ 71,472
Employer Contribution	\$ 28,919	\$ 30,721
Percentage of ADC made by Employer	42%	43%
Contribution Excess/(Shortfall)	\$ (40,471)	\$ (40,751)
Expected Return on Assets	\$ -	\$ -
Investment (Gain)/Loss	\$ -	\$ -
Average Expected Remaining Service	6.766527	7.002072
Blended Discount Rate Beginning of Year	3.376%	3.974%
Blended Discount Rate End of Year	3.974%	4.058%
Long-term Expected Return on Assets	7.280%	7.000%

Individual Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) BARGAINING UNIT NUMBER 15 ALLIED SERVICES		
Measured for the Plan's Fiscal Year Ending Applicable for the Sponsor's Fiscal Year Ending	June 30, 2017 June 30, 2018	June 30, 2018 June 30, 2019
OPEB Expense		
Service Cost	\$ 67,499	\$ 59,602
Interest on the Total OPEB Liability	45,164	51,170
Current-Period Benefit Changes	-	-
Active Member Contributions	-	-
Projected Earnings on Plan Investments	-	-
Operating Expenses	-	-
Other Changes in Plan Fiduciary Net Position	-	-
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(18,762)
Recognition of Outflow/(Inflow) due to Assumption Changes	(18,495)	(24,923)
Recognition of Outflow/(Inflow) due to Investment Experience	-	-
Net OPEB Expense	\$ 94,168	\$ 67,087
Reconciliation of Net OPEB Liability		
Net OPEB Liability beginning of year	\$ 1,284,629	\$ 1,243,228
OPEB Expense	94,168	67,087
Employer Contributions	(28,919)	(30,721)
Change in Outflow/(Inflow) due to Non-investment Experience	-	(112,614)
Change in Outflow/(Inflow) due to Assumption Changes	(106,650)	(20,083)
Change in Outflow/(Inflow) due to Investment Experience	-	-
Net OPEB Liability End of year	\$ 1,243,228	\$ 1,146,897
Deferred (Inflows)		
Non-investment Experience	\$ -	\$ (112,614)
Assumption Changes	\$ (106,650)	\$ (126,733)
Investment Experience	\$ -	\$ -
Deferred Outflows		
Non-investment Experience	\$ -	\$ -
Assumption Changes	\$ -	\$ -
Investment Experience	\$ -	\$ -
Net OPEB Liability Sensitivity		
Baseline Discount Rate	3.974%	4.058%
Baseline Discount Rate and 4.5% Ultimate Trend	\$ 1,243,228	\$ 1,146,897
Increase Discount Rate by One Percentage Point	\$ 1,068,119	\$ 988,507
Decrease Discount Rate by One Percentage Point	\$ 1,462,792	\$ 1,344,795
Increase Trend Rate by One Percentage Point	\$ 1,483,855	\$ 1,327,700
Decrease Trend Rate by One Percentage Point	\$ 1,054,875	\$ 1,004,504

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES DEFERRED INFLOWS AND OUTFLOWS BARGAINING UNIT NUMBER 15 ALLIED SERVICES									
Valuation Date		6/30/2018							
Measurement Date		6/30/2018							
	Non-Investment Experience			Assumption Changes			Investment Experience		
	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization
Plan Year Beginning									
7/1/2016	\$ -	6.766527	\$ -	\$ (125,145)	6.766527	\$ (18,495)	\$ -	\$ 5.000000	\$ -
7/1/2017	\$ (131,376)	7.002072	\$ (18,762)	\$ (45,006)	7.002072	\$ (6,428)	\$ -	5.000000	\$ -
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Current Plan Year End	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2018	\$ -	\$ (18,762)	\$ (18,762)	\$ -	\$ (24,923)	\$ (24,923)	\$ -	\$ -	\$ -
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Future Plan Years Ending									
6/30/2019	\$ -	\$ (18,762)	\$ (18,762)	\$ -	\$ (24,923)	\$ (24,923)	\$ -	\$ -	\$ -
6/30/2020	\$ -	\$ (18,762)	\$ (18,762)	\$ -	\$ (24,923)	\$ (24,923)	\$ -	\$ -	\$ -
6/30/2021	\$ -	\$ (18,762)	\$ (18,762)	\$ -	\$ (24,923)	\$ (24,923)	\$ -	\$ -	\$ -
6/30/2022	\$ -	\$ (18,762)	\$ (18,762)	\$ -	\$ (24,923)	\$ (24,923)	\$ -	\$ -	\$ -
6/30/2023	\$ -	\$ (18,762)	\$ (18,762)	\$ -	\$ (20,603)	\$ (20,603)	\$ -	\$ -	\$ -
6/30/2024	\$ -	\$ (18,762)	\$ (18,762)	\$ -	\$ (6,428)	\$ (6,428)	\$ -	\$ -	\$ -
6/30/2025	\$ -	\$ (42)	\$ (42)	\$ -	\$ (10)	\$ (10)	\$ -	\$ -	\$ -
6/30/2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ (112,614)	\$ (112,614)	\$ -	\$ (126,733)	\$ (126,733)	\$ -	\$ -	\$ -
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2018			\$ (112,614)			\$ (20,083)			\$ -

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 BARGAINING UNIT NUMBER 16 PHYSICIANS, DENTISTS AND PODIATRISTS		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	1,605	1,598
Retired Participants ^a	<u>1,412</u>	<u>1,435</u>
Total Participants	3,017	3,033
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 212,496	\$ 204,930
Retired Participants	<u>223,293</u>	<u>218,669</u>
Total Participants	\$ 435,789	\$ 423,599
Actuarial Accrued Liability		
Active Participants	\$ 133,086	\$ 129,938
Retired Participants	<u>223,293</u>	<u>218,669</u>
Total Participants	\$ 356,379	\$ 348,607
Actuarial Value of Assets	\$ 6,846	\$ 14,232
Unfunded Actuarial Accrued Liability	\$ 349,533	\$ 334,375
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 11,593	\$ 10,709
Administrative Expenses	43	41
Amortization of UAAL	<u>19,775</u>	<u>19,212</u>
Total ADC	\$ 31,411	\$ 29,962
Estimated Member Contributions	<u>(2,909)</u>	<u>(4,032)</u>
Net Employer ADC	\$ 28,502	\$ 25,930
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 11,129	\$ 10,459
Part B Reimbursement	2,182	2,590
Dental Claims	<u>934</u>	<u>937</u>
Total	\$ 14,245	\$ 13,986
Employer Implicit Costs	<u>2,451</u>	<u>2,535</u>
Total Employer Costs	\$ 16,696	\$ 16,521
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 371	\$ 1,406
Dental Claims	<u>298</u>	<u>299</u>
Total	\$ 669	\$ 1,705
Total Claims Costs	\$ 17,365	\$ 18,226

^aRetired participants with dental only coverage, 144 as of July 1, 2017, and 150 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING PROJECTIONS BASED ON JULY 1, 2018, ACTUARIAL VALUATION (\$ IN 000'S) BARGAINING UNIT NUMBER 16 PHYSICIANS, DENTISTS AND PODIATRISTS									
Fiscal Year Beginning		7/1/2018							
Long-term Asset Return		7.000%							
Discount Rate		7.000%							
Year Plan is Fully Funded		2042							
FYE	Assets (boy)	Disbursements/ Benefits	Administrative Expenses	Pre-Fund Contribution	Investment Income	Assets (eoy)	Accrued Liability (eoy)	Funded Ratio	Normal Cost
2018	\$ 6,846	\$ -	\$ 5	\$ 6,746	\$ 645	\$ 14,232	\$ 348,607	4.1%	\$ 10,709
2019	14,232	-	41	8,063	1,272	23,526	367,370	6.4%	9,990
2020	23,526	-	46	10,036	1,991	35,507	384,932	9.2%	9,375
2021	35,507	-	50	9,426	2,808	47,691	401,068	11.9%	8,762
2022	47,691	-	55	8,818	3,640	60,094	415,642	14.5%	8,142
2023	60,094	-	60	8,202	4,487	72,723	428,569	17.0%	7,547
2024	72,723	-	65	7,612	5,350	85,620	439,897	19.5%	6,981
2025	85,620	-	69	7,050	6,234	98,835	449,693	22.0%	6,428
2026	98,835	-	73	6,501	7,140	112,403	457,978	24.5%	5,883
2027	112,403	-	76	5,959	8,071	126,357	464,798	27.2%	5,349
2028	126,357	-	79	5,428	9,029	140,735	470,153	29.9%	4,831
2029	140,735	-	83	4,914	10,018	155,584	473,999	32.8%	4,335
2030	155,584	-	86	4,421	11,040	170,959	476,279	35.9%	3,863
2031	170,959	-	89	3,952	12,100	186,922	477,016	39.2%	3,419
2032	186,922	-	92	3,510	13,202	203,542	476,194	42.7%	3,004
2033	203,542	-	94	3,098	14,351	220,897	473,824	46.6%	2,613
2034	220,897	-	96	2,709	15,552	239,062	469,895	50.9%	2,246
2035	239,062	-	98	2,345	16,811	258,120	464,480	55.6%	1,908
2036	258,120	-	100	2,008	18,134	278,162	457,706	60.8%	1,603
2037	278,162	-	101	1,704	19,526	299,291	449,676	66.6%	1,330
2038	299,291	-	102	1,432	20,996	321,617	440,484	73.0%	1,090
2039	321,617	-	102	1,192	22,551	345,258	430,335	80.2%	884
2040	345,258	-	101	985	24,198	370,340	419,409	88.3%	709
2041	370,340	-	101	810	25,948	396,997	407,805	97.3%	562
2042	396,997	26,394	100	662	26,901	398,066	395,642	100.6%	440
2043	398,066	39,453	99	-	26,504	385,018	382,990	100.5%	339
2044	385,018	38,874	97	-	25,610	371,657	369,945	100.5%	257
2045	371,657	38,249	96	-	24,696	358,008	356,546	100.4%	192
2046	358,008	37,582	94	-	23,764	344,096	342,830	100.4%	140
2047	344,096	36,800	92	-	22,817	330,021	328,907	100.3%	99
2048	330,021	36,002	90	-	21,860	315,789	314,791	100.3%	68
2049	315,789	35,196	88	-	20,891	301,396	300,489	100.3%	45
2050	301,396	34,309	86	-	19,914	286,915	286,078	100.3%	29
2051	286,915	33,367	83	-	18,933	272,398	271,616	100.3%	18
2052	272,398	32,390	81	-	17,950	257,877	257,141	100.3%	11
2053	257,877	31,389	78	-	16,969	243,379	242,680	100.3%	6
2054	243,379	30,359	76	-	15,989	228,933	228,269	100.3%	4
2055	228,933	29,293	73	-	15,015	214,582	213,949	100.3%	2
2056	214,582	28,199	70	-	14,048	200,361	199,756	100.3%	1

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM								
DEVELOPMENT OF GASB NOS. 74 AND 75 SINGLE EQUIVALENT DISCOUNT RATE, (\$ IN 000'S)								
BARGAINING UNIT NUMBER 16								
PHYSICIANS, DENTISTS AND PODIATRISTS								
20-Year GO Municipal Bond Rate at June 30, 2018		3.620%						
Long-Term Investment Return		7.000%						
Year Plan is Fully Funded		2042						
Single Equivalent Rate		4.112%						
Present Value of Benefits		\$ 663,131			\$ 663,131			
FYE	Net Employer Benefits	Cross-over Investment Return	Discount Factor	Discounted Benefit Payment	Single Equivalent Return	Discount Factor	Discounted Benefit Payment	
2019	\$ 16,521	3.620%	0.98238	\$ 16,230	4.112%	0.98006	\$ 16,192	
2020	18,207	3.620%	0.94806	17,261	4.112%	0.94135	17,139	
2021	20,138	3.620%	0.91494	18,425	4.112%	0.90418	18,208	
2022	22,106	3.620%	0.88297	19,519	4.112%	0.86847	19,198	
2023	24,042	3.620%	0.85213	20,487	4.112%	0.83417	20,055	
2024	25,847	3.620%	0.82236	21,255	4.112%	0.80123	20,709	
2025	27,510	3.620%	0.79363	21,832	4.112%	0.76959	21,171	
2026	29,060	3.620%	0.76590	22,257	4.112%	0.73919	21,481	
2027	30,473	3.620%	0.73914	22,524	4.112%	0.71000	21,636	
2028	31,799	3.620%	0.71332	22,683	4.112%	0.68196	21,686	
2029	33,084	3.620%	0.68840	22,775	4.112%	0.65503	21,671	
2030	34,346	3.620%	0.66435	22,818	4.112%	0.62916	21,609	
2031	35,504	3.620%	0.64114	22,763	4.112%	0.60432	21,456	
2032	36,600	3.620%	0.61874	22,646	4.112%	0.58045	21,245	
2033	37,613	3.620%	0.59713	22,460	4.112%	0.55753	20,970	
2034	38,557	3.620%	0.57627	22,219	4.112%	0.53551	20,647	
2035	39,347	3.620%	0.55614	21,882	4.112%	0.51436	20,239	
2036	39,945	3.620%	0.53671	21,439	4.112%	0.49405	19,735	
2037	40,386	3.620%	0.51796	20,918	4.112%	0.47454	19,165	
2038	40,684	3.620%	0.49986	20,336	4.112%	0.45580	18,544	
2039	40,739	3.620%	0.48240	19,653	4.112%	0.43780	17,836	
2040	40,591	3.620%	0.46555	18,897	4.112%	0.42051	17,069	
2041	40,326	3.620%	0.44928	18,118	4.112%	0.40390	16,288	
2042	39,930	3.620%	0.43359	17,313	4.112%	0.38795	15,491	
2043	39,453	7.000%	0.40522	15,987	4.112%	0.37263	14,701	
2044	38,874	7.000%	0.37871	14,722	4.112%	0.35792	13,914	
2045	38,249	7.000%	0.35394	13,538	4.112%	0.34378	13,149	
2046	37,582	7.000%	0.33078	12,431	4.112%	0.33020	12,410	
2047	36,800	7.000%	0.30914	11,376	4.112%	0.31716	11,672	
2048	36,002	7.000%	0.28892	10,401	4.112%	0.30464	10,967	
2049	35,196	7.000%	0.27002	9,503	4.112%	0.29261	10,299	
2050	34,309	7.000%	0.25235	8,658	4.112%	0.28105	9,643	
2051	33,367	7.000%	0.23584	7,869	4.112%	0.26995	9,008	
2052	32,390	7.000%	0.22041	7,139	4.112%	0.25929	8,398	
2053	31,389	7.000%	0.20599	6,466	4.112%	0.24905	7,818	
2054	30,359	7.000%	0.19252	5,845	4.112%	0.23922	7,262	
2055	29,293	7.000%	0.17992	5,270	4.112%	0.22977	6,731	
2065	16,902	7.000%	0.09146	1,546	4.112%	0.15357	2,596	
2075	5,163	7.000%	0.04650	240	4.112%	0.10264	530	
2085	660	7.000%	0.02364	16	4.112%	0.06860	45	
2095	80	7.000%	0.01202	1	4.112%	0.04585	4	
2105	8	7.000%	0.00611	-	4.112%	0.03064	-	
2115	-	7.000%	0.00310	-	4.112%	0.02048	-	

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER BARGAINING UNIT NUMBER 16 PHYSICIANS, DENTISTS AND PODIATRISTS		
Fiscal Year Ending	June 30, 2017	June 30, 2018
Total OPEB Liability		
Service Cost	\$ 25,410	\$ 22,878
Interest on Total OPEB Liability	19,529	22,062
Changes of Benefit Terms	-	-
Difference between Expected and Actual Experience	-	(45,803)
Changes of Assumptions	(45,549)	(17,270)
Benefit Payments	(15,948)	(16,693)
Net Change in Total OPEB Liability	\$ (16,558)	\$ (34,826)
Total OPEB Liability - Beginning	\$ 547,898	\$ 531,340
Total OPEB Liability - Ending (a)	\$ 531,340	\$ 496,514
Plan Fiduciary Net Position		
Employer PayGO Contributions	\$ 15,948	\$ 16,693
Employer Pre Funding Contributions	711	3,373
Active Member Contributions	711	3,373
Net Investment Income	591	645
Benefit Payments	(15,948)	(16,693)
Administrative Expense	(3)	(5)
Other	-	-
Net Change in Plan Fiduciary Net Position	\$ 2,010	\$ 7,386
Plan Fiduciary Net Position - Beginning	\$ 4,836	\$ 6,846
Plan Fiduciary Net Position - Ending (b)	\$ 6,846	\$ 14,232
Net OPEB Liability - Ending (a) - (b)	\$ 524,494	\$ 482,282
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	1.288%	2.866%
Actuarially Determined Contribution (ADC)	\$ 29,785	\$ 28,038
Employer Contribution	\$ 16,659	\$ 20,066
Percentage of ADC made by Employer	56%	72%
Contribution Excess/(Shortfall)	\$ (13,126)	\$ (7,972)
Expected Return on Assets	\$ 403	\$ 739
Investment (Gain)/Loss	\$ (188)	\$ 94
Average Expected Remaining Service	4.144907	4.131138
Blended Discount Rate Beginning of Year	3.454%	4.041%
Blended Discount Rate End of Year	4.041%	4.112%
Long-term Expected Return on Assets	7.280%	7.000%

Individual Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) BARGAINING UNIT NUMBER 16 PHYSICIANS, DENTISTS AND PODIATRISTS		
Measured for the Plan's Fiscal Year Ending	June 30, 2017	June 30, 2018
Applicable for the Sponsor's Fiscal Year Ending	June 30, 2018	June 30, 2019
OPEB Expense		
Service Cost	\$ 25,410	\$ 22,878
Interest on the Total OPEB Liability	19,529	22,062
Current-Period Benefit Changes	-	-
Active Member Contributions	(711)	(3,373)
Projected Earnings on Plan Investments	(403)	(739)
Operating Expenses	3	5
Other Changes in Plan Fiduciary Net Position	-	-
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(11,087)
Recognition of Outflow/(Inflow) due to Assumption Changes	(10,989)	(15,169)
Recognition of Outflow/(Inflow) due to Investment Experience	(38)	(19)
Net OPEB Expense	\$ 32,801	\$ 14,558
Reconciliation of Net OPEB Liability		
Net OPEB Liability beginning of year	\$ 543,062	\$ 524,494
OPEB Expense	32,801	14,558
Employer Contributions	(16,659)	(20,066)
Change in Outflow/(Inflow) due to Non-investment Experience	-	(34,716)
Change in Outflow/(Inflow) due to Assumption Changes	(34,560)	(2,101)
Change in Outflow/(Inflow) due to Investment Experience	(150)	113
Net OPEB Liability End of year	\$ 524,494	\$ 482,282
Deferred (Inflows)		
Non-investment Experience	\$ -	\$ (34,716)
Assumption Changes	\$ (34,560)	\$ (36,661)
Investment Experience	\$ (150)	\$ (112)
Deferred Outflows		
Non-investment Experience	\$ -	\$ -
Assumption Changes	\$ -	\$ -
Investment Experience	\$ -	\$ 75
Net OPEB Liability Sensitivity		
Baseline Discount Rate	4.041%	4.112%
Baseline Discount Rate and 4.5% Ultimate Trend	\$ 524,494	\$ 482,282
Increase Discount Rate by One Percentage Point	\$ 458,449	\$ 421,602
Decrease Discount Rate by One Percentage Point	\$ 605,651	\$ 556,680
Increase Trend Rate by One Percentage Point	\$ 610,092	\$ 548,460
Decrease Trend Rate by One Percentage Point	\$ 455,309	\$ 428,136

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES DEFERRED INFLOWS AND OUTFLOWS BARGAINING UNIT NUMBER 16 PHYSICIANS, DENTISTS AND PODIATRISTS									
Valuation Date		6/30/2018							
Measurement Date		6/30/2018							
	Non-Investment Experience			Assumption Changes			Investment Experience		
	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization
Plan Year Beginning									
7/1/2016	\$ -	4.144907	\$ -	\$ (45,549)	4.144907	\$ (10,989)	\$ (188)	5.000000	\$ (38)
7/1/2017	\$ (45,803)	4.131138	\$ (11,087)	\$ (17,270)	4.131138	\$ (4,180)	\$ 94	5.000000	\$ 19
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Current Plan Year End	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2018	\$ -	\$ (11,087)	\$ (11,087)	\$ -	\$ (15,169)	\$ (15,169)	\$ 19	\$ (38)	\$ (19)
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Future Plan Years Ending									
6/30/2019	\$ -	\$ (11,087)	\$ (11,087)	\$ -	\$ (15,169)	\$ (15,169)	\$ 19	\$ (38)	\$ (19)
6/30/2020	\$ -	\$ (11,087)	\$ (11,087)	\$ -	\$ (15,169)	\$ (15,169)	\$ 19	\$ (38)	\$ (19)
6/30/2021	\$ -	\$ (11,087)	\$ (11,087)	\$ -	\$ (5,773)	\$ (5,773)	\$ 19	\$ (36)	\$ (17)
6/30/2022	\$ -	\$ (1,455)	\$ (1,455)	\$ -	\$ (550)	\$ (550)	\$ 18	\$ -	\$ 18
6/30/2023	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2024	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2025	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ (34,716)	\$ (34,716)	\$ -	\$ (36,661)	\$ (36,661)	\$ 75	\$ (112)	\$ (37)
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2018			\$ (34,716)			\$ (2,101)			\$ 113

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 BARGAINING UNIT NUMBER 17 REGISTERED NURSES		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	6,060	6,170
Retired Participants ^a	<u>3,356</u>	<u>3,522</u>
Total Participants	9,416	9,692
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 744,156	\$ 746,642
Retired Participants	<u>544,651</u>	<u>549,293</u>
Total Participants	\$ 1,288,807	\$ 1,295,935
Actuarial Accrued Liability		
Active Participants	\$ 448,048	\$ 439,020
Retired Participants	<u>544,651</u>	<u>549,293</u>
Total Participants	\$ 992,699	\$ 988,313
Actuarial Value of Assets	\$ -	\$ -
Unfunded Actuarial Accrued Liability	\$ 992,699	\$ 988,313
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 36,980	\$ 35,985
Administrative Expenses	95	96
Amortization of UAAL	<u>56,162</u>	<u>56,785</u>
Total ADC	\$ 93,237	\$ 92,866
Estimated Member Contributions	-	(4,510)
Net Employer ADC	\$ 93,237	\$ 88,356
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 26,982	\$ 26,524
Part B Reimbursement	3,752	4,610
Dental Claims	<u>2,051</u>	<u>2,119</u>
Total	\$ 32,785	\$ 33,253
Employer Implicit Costs	<u>5,084</u>	<u>5,110</u>
Total Employer Costs	\$ 37,869	\$ 38,363
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 896	\$ 2,655
Dental Claims	<u>642</u>	<u>664</u>
Total	\$ 1,538	\$ 3,319
Total Claims Costs	\$ 39,407	\$ 41,682

^aRetired participants with dental only coverage, 295 as of July 1, 2017, and 317 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING PROJECTIONS BASED ON JULY 1, 2018, ACTUARIAL VALUATION (\$ IN 000'S) BARGAINING UNIT NUMBER 17 REGISTERED NURSES									
Fiscal Year Beginning		7/1/2018							
Long-term Asset Return		7.000%							
Discount Rate		7.000%							
Year Plan is Fully Funded		2047							
FYE	Assets (boy)	Disbursements/ Benefits	Administrative Expenses	Pre-Fund Contribution	Investment Income	Assets (eoy)	Accrued Liability (eoy)	Funded Ratio	Normal Cost
2018	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 988,313	0.0%	\$ 35,985
2019	-	-	96	9,020	307	9,231	1,056,294	0.9%	34,679
2020	9,231	-	105	17,392	1,241	27,759	1,124,046	2.5%	33,432
2021	27,759	-	116	25,161	2,805	55,609	1,190,530	4.7%	32,175
2022	55,609	-	127	32,303	5,000	92,785	1,255,572	7.4%	30,878
2023	92,785	-	139	31,017	7,557	131,220	1,318,830	9.9%	29,549
2024	131,220	-	152	29,701	10,202	170,971	1,379,889	12.4%	28,199
2025	170,971	-	165	28,364	12,938	212,108	1,438,497	14.7%	26,818
2026	212,108	-	178	26,996	15,770	254,696	1,494,295	17.0%	25,397
2027	254,696	-	191	25,588	18,703	298,796	1,547,048	19.3%	23,951
2028	298,796	-	204	24,155	21,740	344,487	1,596,501	21.6%	22,490
2029	344,487	-	218	22,708	24,888	391,865	1,642,106	23.9%	21,037
2030	391,865	-	232	21,268	28,154	441,055	1,683,651	26.2%	19,595
2031	441,055	-	246	19,840	31,548	492,197	1,720,766	28.6%	18,165
2032	492,197	-	260	18,425	35,079	545,441	1,753,230	31.1%	16,758
2033	545,441	-	273	17,031	38,758	600,957	1,780,847	33.7%	15,380
2034	600,957	-	286	15,666	42,596	658,933	1,803,549	36.5%	14,031
2035	658,933	-	299	14,330	46,608	719,572	1,821,159	39.5%	12,711
2036	719,572	-	311	13,022	50,808	783,091	1,833,502	42.7%	11,433
2037	783,091	-	323	11,755	55,210	849,733	1,840,602	46.2%	10,212
2038	849,733	-	333	10,545	59,833	919,778	1,842,713	49.9%	9,060
2039	919,778	-	342	9,402	64,697	993,535	1,839,767	54.0%	7,971
2040	993,535	-	351	8,322	69,822	1,071,328	1,831,740	58.5%	6,941
2041	1,071,328	-	359	7,300	75,232	1,153,501	1,818,620	63.4%	5,979
2042	1,153,501	-	367	6,346	80,951	1,240,431	1,800,449	68.9%	5,097
2043	1,240,431	-	373	5,471	87,006	1,332,535	1,777,390	75.0%	4,285
2044	1,332,535	-	379	4,664	93,425	1,430,245	1,749,678	81.7%	3,541
2045	1,430,245	-	383	3,924	100,239	1,534,025	1,717,432	89.3%	2,879
2046	1,534,025	-	386	3,265	107,481	1,644,385	1,680,827	97.8%	2,302
2047	1,644,385	107,824	388	2,690	111,476	1,650,339	1,640,450	100.6%	1,805
2048	1,650,339	154,889	387	-	110,181	1,605,244	1,596,979	100.5%	1,385
2049	1,605,244	154,121	385	-	107,051	1,557,789	1,550,812	100.5%	1,039
2050	1,557,789	152,775	382	-	103,776	1,508,408	1,502,435	100.4%	759
2051	1,508,408	150,706	377	-	100,390	1,457,715	1,452,514	100.4%	539
2052	1,457,715	148,284	371	-	96,925	1,405,985	1,401,370	100.3%	374
2053	1,405,985	145,663	364	-	93,395	1,353,353	1,349,182	100.3%	253
2054	1,353,353	142,651	357	-	89,814	1,300,159	1,296,328	100.3%	168
2055	1,300,159	139,513	349	-	86,199	1,246,496	1,242,930	100.3%	110
2056	1,246,496	136,464	341	-	82,548	1,192,239	1,188,887	100.3%	70

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM							
DEVELOPMENT OF GASB NOS. 74 AND 75 SINGLE EQUIVALENT DISCOUNT RATE, (\$ IN 000'S)							
BARGAINING UNIT NUMBER 17							
REGISTERED NURSES							
20-Year GO Municipal Bond Rate at June 30, 2018				3.620%			
Long-Term Investment Return				7.000%			
Year Plan is Fully Funded				2047			
Single Equivalent Rate				4.050%			
Present Value of Benefits				\$ 2,265,379		\$ 2,265,379	
FYE	Net Employer Benefits	Cross-over Investment Return	Discount Factor	Discounted Benefit Payment	Single Equivalent Return	Discount Factor	Discounted Benefit Payment
2019	\$ 38,363	3.620%	0.98238	\$ 37,687	4.050%	0.98034	\$ 37,609
2020	41,834	3.620%	0.94806	39,661	4.050%	0.94218	39,415
2021	46,354	3.620%	0.91494	42,411	4.050%	0.90551	41,974
2022	50,946	3.620%	0.88297	44,984	4.050%	0.87026	44,336
2023	55,729	3.620%	0.85213	47,488	4.050%	0.83639	46,611
2024	60,762	3.620%	0.82236	49,968	4.050%	0.80383	48,842
2025	65,864	3.620%	0.79363	52,271	4.050%	0.77254	50,883
2026	71,121	3.620%	0.76590	54,472	4.050%	0.74247	52,805
2027	76,368	3.620%	0.73914	56,447	4.050%	0.71357	54,494
2028	81,633	3.620%	0.71332	58,230	4.050%	0.68580	55,983
2029	87,187	3.620%	0.68840	60,020	4.050%	0.65910	57,465
2030	92,696	3.620%	0.66435	61,583	4.050%	0.63345	58,718
2031	98,297	3.620%	0.64114	63,023	4.050%	0.60879	59,842
2032	103,827	3.620%	0.61874	64,242	4.050%	0.58509	60,748
2033	109,254	3.620%	0.59713	65,239	4.050%	0.56232	61,436
2034	114,449	3.620%	0.57627	65,953	4.050%	0.54043	61,852
2035	119,513	3.620%	0.55614	66,466	4.050%	0.51939	62,075
2036	124,430	3.620%	0.53671	66,783	4.050%	0.49918	62,113
2037	129,013	3.620%	0.51796	66,823	4.050%	0.47975	61,894
2038	133,055	3.620%	0.49986	66,509	4.050%	0.46107	61,348
2039	136,895	3.620%	0.48240	66,038	4.050%	0.44313	60,662
2040	140,481	3.620%	0.46555	65,401	4.050%	0.42588	59,828
2041	143,798	3.620%	0.44928	64,606	4.050%	0.40930	58,857
2042	146,799	3.620%	0.43359	63,650	4.050%	0.39337	57,746
2043	149,383	3.620%	0.41844	62,508	4.050%	0.37806	56,475
2044	151,482	3.620%	0.40382	61,171	4.050%	0.36334	55,039
2045	153,220	3.620%	0.38971	59,712	4.050%	0.34920	53,504
2046	154,570	3.620%	0.37610	58,133	4.050%	0.33560	51,874
2047	155,143	3.620%	0.36296	56,311	4.050%	0.32254	50,040
2048	154,889	7.000%	0.33921	52,540	4.050%	0.30999	48,013
2049	154,121	7.000%	0.31702	48,860	4.050%	0.29792	45,916
2050	152,775	7.000%	0.29628	45,265	4.050%	0.28632	43,743
2051	150,706	7.000%	0.27690	41,730	4.050%	0.27518	41,471
2052	148,284	7.000%	0.25878	38,374	4.050%	0.26447	39,216
2053	145,663	7.000%	0.24186	35,229	4.050%	0.25417	37,024
2054	142,651	7.000%	0.22603	32,244	4.050%	0.24428	34,847
2055	139,513	7.000%	0.21125	29,471	4.050%	0.23477	32,754
2065	103,212	7.000%	0.10739	11,084	4.050%	0.15784	16,291
2075	51,882	7.000%	0.05459	2,832	4.050%	0.10612	5,506
2085	12,079	7.000%	0.02775	335	4.050%	0.07135	862
2095	626	7.000%	0.01411	9	4.050%	0.04797	30
2105	5	7.000%	0.00717	-	4.050%	0.03225	-
2115	-	7.000%	0.00365	-	4.050%	0.02168	-

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER BARGAINING UNIT NUMBER 17 REGISTERED NURSES		
Fiscal Year Ending	June 30, 2017	June 30, 2018
Total OPEB Liability		
Service Cost	\$ 89,221	\$ 79,048
Interest on Total OPEB Liability	57,382	65,218
Changes of Benefit Terms	-	-
Difference between Expected and Actual Experience	-	(143,047)
Changes of Assumptions	(161,478)	(51,584)
Benefit Payments	(36,173)	(38,427)
Net Change in Total OPEB Liability	\$ (51,048)	\$ (88,792)
Total OPEB Liability - Beginning	\$ 1,637,532	\$ 1,586,484
Total OPEB Liability - Ending (a)	\$ 1,586,484	\$ 1,497,692
Plan Fiduciary Net Position		
Employer PayGO Contributions	\$ 36,173	\$ 38,427
Employer Pre Funding Contributions	-	-
Active Member Contributions	-	-
Net Investment Income	-	-
Benefit Payments	(36,173)	(38,427)
Administrative Expense	-	-
Other	-	-
Net Change in Plan Fiduciary Net Position	\$ -	\$ -
Plan Fiduciary Net Position - Beginning	\$ -	\$ -
Plan Fiduciary Net Position - Ending (b)	\$ -	\$ -
Net OPEB Liability - Ending (a) - (b)	\$ 1,586,484	\$ 1,497,692
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	0.000%	0.000%
Actuarially Determined Contribution (ADC)	\$ 90,521	\$ 93,237
Employer Contribution	\$ 36,173	\$ 38,427
Percentage of ADC made by Employer	40%	41%
Contribution Excess/(Shortfall)	\$ (54,348)	\$ (54,810)
Expected Return on Assets	\$ -	\$ -
Investment (Gain)/Loss	\$ -	\$ -
Average Expected Remaining Service	6.353194	6.621061
Blended Discount Rate Beginning of Year	3.358%	3.961%
Blended Discount Rate End of Year	3.961%	4.050%
Long-term Expected Return on Assets	7.280%	7.000%

Individual Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) BARGAINING UNIT NUMBER 17 REGISTERED NURSES		
Measured for the Plan's Fiscal Year Ending Applicable for the Sponsor's Fiscal Year Ending	June 30, 2017 June 30, 2018	June 30, 2018 June 30, 2019
OPEB Expense		
Service Cost	\$ 89,221	\$ 79,048
Interest on the Total OPEB Liability	57,382	65,218
Current-Period Benefit Changes	-	-
Active Member Contributions	-	-
Projected Earnings on Plan Investments	-	-
Operating Expenses	-	-
Other Changes in Plan Fiduciary Net Position	-	-
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(21,605)
Recognition of Outflow/(Inflow) due to Assumption Changes	(25,417)	(33,208)
Recognition of Outflow/(Inflow) due to Investment Experience	-	-
Net OPEB Expense	\$ 121,186	\$ 89,453
Reconciliation of Net OPEB Liability		
Net OPEB Liability beginning of year	\$ 1,637,532	\$ 1,586,484
OPEB Expense	121,186	89,453
Employer Contributions	(36,173)	(38,427)
Change in Outflow/(Inflow) due to Non-investment Experience	-	(121,442)
Change in Outflow/(Inflow) due to Assumption Changes	(136,061)	(18,376)
Change in Outflow/(Inflow) due to Investment Experience	-	-
Net OPEB Liability End of year	\$ 1,586,484	\$ 1,497,692
Deferred (Inflows)		
Non-investment Experience	\$ -	\$ (121,442)
Assumption Changes	\$ (136,061)	\$ (154,437)
Investment Experience	\$ -	\$ -
Deferred Outflows		
Non-investment Experience	\$ -	\$ -
Assumption Changes	\$ -	\$ -
Investment Experience	\$ -	\$ -
Net OPEB Liability Sensitivity		
Baseline Discount Rate	3.961%	4.050%
Baseline Discount Rate and 4.5% Ultimate Trend	\$ 1,586,484	\$ 1,497,692
Increase Discount Rate by One Percentage Point	\$ 1,362,240	\$ 1,288,781
Decrease Discount Rate by One Percentage Point	\$ 1,867,154	\$ 1,758,676
Increase Trend Rate by One Percentage Point	\$ 1,894,187	\$ 1,737,504
Decrease Trend Rate by One Percentage Point	\$ 1,344,691	\$ 1,308,312

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES DEFERRED INFLOWS AND OUTFLOWS BARGAINING UNIT NUMBER 17 REGISTERED NURSES									
Valuation Date		6/30/2018							
Measurement Date		6/30/2018							
	Non-Investment Experience			Assumption Changes			Investment Experience		
	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization
Plan Year Beginning									
7/1/2016	\$ -	6.353194	\$ -	\$ (161,478)	6.353194	\$ (25,417)	\$ -	\$ 5.000000	\$ -
7/1/2017	\$ (143,047)	6.621061	\$ (21,605)	\$ (51,584)	6.621061	\$ (7,791)	\$ -	5.000000	\$ -
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Current Plan Year End	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2018	\$ -	\$ (21,605)	\$ (21,605)	\$ -	\$ (33,208)	\$ (33,208)	\$ -	\$ -	\$ -
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Future Plan Years Ending									
6/30/2019	\$ -	\$ (21,605)	\$ (21,605)	\$ -	\$ (33,208)	\$ (33,208)	\$ -	\$ -	\$ -
6/30/2020	\$ -	\$ (21,605)	\$ (21,605)	\$ -	\$ (33,208)	\$ (33,208)	\$ -	\$ -	\$ -
6/30/2021	\$ -	\$ (21,605)	\$ (21,605)	\$ -	\$ (33,208)	\$ (33,208)	\$ -	\$ -	\$ -
6/30/2022	\$ -	\$ (21,605)	\$ (21,605)	\$ -	\$ (33,208)	\$ (33,208)	\$ -	\$ -	\$ -
6/30/2023	\$ -	\$ (21,605)	\$ (21,605)	\$ -	\$ (16,767)	\$ (16,767)	\$ -	\$ -	\$ -
6/30/2024	\$ -	\$ (13,417)	\$ (13,417)	\$ -	\$ (4,838)	\$ (4,838)	\$ -	\$ -	\$ -
6/30/2025	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ (121,442)	\$ (121,442)	\$ -	\$ (154,437)	\$ (154,437)	\$ -	\$ -	\$ -
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2018			\$ (121,442)			\$ (18,376)			\$ -

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 BARGAINING UNIT NUMBER 18 PSYCHIATRIC TECHNICIANS		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	6,515	6,414
Retired Participants ^a	<u>4,745</u>	<u>4,852</u>
Total Participants	11,260	11,266
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 805,322	\$ 849,687
Retired Participants	<u>780,662</u>	<u>784,756</u>
Total Participants	\$ 1,585,984	\$ 1,634,443
Actuarial Accrued Liability		
Active Participants	\$ 505,128	\$ 502,416
Retired Participants	<u>780,662</u>	<u>784,756</u>
Total Participants	\$ 1,285,790	\$ 1,287,172
Actuarial Value of Assets	\$ -	\$ 7,704
Unfunded Actuarial Accrued Liability	\$ 1,285,790	\$ 1,279,468
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 33,513	\$ 34,926
Administrative Expenses	130	132
Amortization of UAAL	<u>72,743</u>	<u>73,514</u>
Total ADC	\$ 106,386	\$ 108,572
Estimated Member Contributions	<u>(4,205)</u>	<u>(8,764)</u>
Net Employer ADC	\$ 102,181	\$ 99,808
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 37,991	\$ 37,798
Part B Reimbursement	4,750	5,790
Dental Claims	<u>2,613</u>	<u>2,623</u>
Total	\$ 45,354	\$ 46,211
Employer Implicit Costs	<u>6,524</u>	<u>6,479</u>
Total Employer Costs	\$ 51,878	\$ 52,690
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 1,218	\$ 2,400
Dental Claims	<u>794</u>	<u>799</u>
Total	\$ 2,012	\$ 3,199
Total Claims Costs	\$ 53,890	\$ 55,889

^aRetired participants with dental only coverage, 277 as of July 1, 2017, and 283 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING PROJECTIONS BASED ON JULY 1, 2018, ACTUARIAL VALUATION (\$ IN 000'S) BARGAINING UNIT NUMBER 18 PSYCHIATRIC TECHNICIANS									
Fiscal Year Beginning		7/1/2018							
Long-term Asset Return		7.000%							
Discount Rate		7.000%							
Year Plan is Fully Funded		2049							
FYE	Assets (boy)	Disbursements/ Benefits	Administrative Expenses	Pre-Fund Contribution	Investment Income	Assets (eoy)	Accrued Liability (eoy)	Funded Ratio	Normal Cost
2018	\$ -	\$ -	\$ 2	\$ 7,598	\$ 108	\$ 7,704	\$ 1,287,172	0.6%	\$ 34,926
2019	7,704	-	132	17,529	1,138	26,239	1,360,112	1.9%	34,099
2020	26,239	-	141	25,680	2,715	54,493	1,433,361	3.8%	33,310
2021	54,493	-	154	33,464	4,961	92,764	1,505,559	6.2%	32,508
2022	92,764	-	167	32,676	7,612	132,885	1,576,462	8.4%	31,694
2023	132,885	-	180	31,875	10,392	174,972	1,646,044	10.6%	30,870
2024	174,972	-	194	31,064	13,310	219,152	1,714,128	12.8%	30,043
2025	219,152	-	207	30,250	16,374	265,569	1,780,660	14.9%	29,207
2026	265,569	-	219	29,426	19,595	314,371	1,845,769	17.0%	28,354
2027	314,371	-	231	28,585	22,981	365,706	1,909,622	19.2%	27,491
2028	365,706	-	243	27,733	26,545	419,741	1,972,236	21.3%	26,611
2029	419,741	-	255	26,866	30,298	476,650	2,033,313	23.4%	25,711
2030	476,650	-	267	25,978	34,250	536,611	2,092,582	25.6%	24,780
2031	536,611	-	280	25,060	38,415	599,806	2,149,782	27.9%	23,816
2032	599,806	-	293	24,109	42,806	666,428	2,204,375	30.2%	22,815
2033	666,428	-	307	23,122	47,435	736,678	2,256,162	32.7%	21,760
2034	736,678	-	320	22,081	52,316	810,755	2,304,750	35.2%	20,634
2035	810,755	-	335	20,969	57,463	888,852	2,349,455	37.8%	19,452
2036	888,852	-	350	19,802	62,889	971,193	2,389,955	40.6%	18,234
2037	971,193	-	364	18,598	68,611	1,058,038	2,425,952	43.6%	16,980
2038	1,058,038	-	380	17,359	74,647	1,149,664	2,456,815	46.8%	15,697
2039	1,149,664	-	395	16,093	81,017	1,246,379	2,481,970	50.2%	14,404
2040	1,246,379	-	411	14,815	87,742	1,348,525	2,501,062	53.9%	13,094
2041	1,348,525	-	426	13,520	94,847	1,456,466	2,513,704	57.9%	11,779
2042	1,456,466	-	441	12,220	102,358	1,570,603	2,519,762	62.3%	10,470
2043	1,570,603	-	455	10,925	110,302	1,691,375	2,519,066	67.1%	9,175
2044	1,691,375	-	468	9,643	118,712	1,819,262	2,511,561	72.4%	7,934
2045	1,819,262	-	479	8,413	127,621	1,954,817	2,497,630	78.3%	6,761
2046	1,954,817	-	489	7,250	137,070	2,098,648	2,477,375	84.7%	5,661
2047	2,098,648	-	497	6,158	147,100	2,251,409	2,451,124	91.9%	4,655
2048	2,251,409	-	504	5,159	157,759	2,413,823	2,419,308	99.8%	3,756
2049	2,413,823	181,853	507	4,263	162,840	2,398,566	2,382,711	100.7%	2,976
2050	2,398,566	203,637	509	-	160,875	2,355,295	2,342,021	100.6%	2,312
2051	2,355,295	203,664	509	-	157,845	2,308,967	2,297,745	100.5%	1,762
2052	2,308,967	203,246	508	-	154,617	2,259,830	2,250,216	100.4%	1,319
2053	2,259,830	202,202	506	-	151,213	2,208,335	2,199,966	100.4%	968
2054	2,208,335	200,311	501	-	147,674	2,155,197	2,147,781	100.3%	696
2055	2,155,197	198,131	495	-	144,029	2,100,600	2,093,908	100.3%	490
2056	2,100,600	196,029	490	-	140,280	2,044,361	2,038,219	100.3%	338

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM								
DEVELOPMENT OF GASB NOS. 74 AND 75 SINGLE EQUIVALENT DISCOUNT RATE, (\$ IN 000'S)								
BARGAINING UNIT NUMBER 18								
PSYCHIATRIC TECHNICIANS								
20-Year GO Municipal Bond Rate at June 30, 2018			3.620%					
Long-Term Investment Return			7.000%					
Year Plan is Fully Funded			2049					
Single Equivalent Rate			4.080%					
Present Value of Benefits			\$ 2,949,147			\$ 2,949,147		
FYE	Net Employer Benefits	Cross-over Investment Return	Discount Factor	Discounted Benefit Payment	Single Equivalent Return	Discount Factor	Discounted Benefit Payment	
2019	\$ 52,690	3.620%	0.98238	\$ 51,762	4.080%	0.98020	\$ 51,647	
2020	56,470	3.620%	0.94806	53,537	4.080%	0.94178	53,182	
2021	61,627	3.620%	0.91494	56,385	4.080%	0.90486	55,764	
2022	66,931	3.620%	0.88297	59,099	4.080%	0.86939	58,190	
2023	72,166	3.620%	0.85213	61,495	4.080%	0.83531	60,282	
2024	77,468	3.620%	0.82236	63,707	4.080%	0.80257	62,174	
2025	82,721	3.620%	0.79363	65,650	4.080%	0.77111	63,787	
2026	87,733	3.620%	0.76590	67,195	4.080%	0.74088	65,000	
2027	92,472	3.620%	0.73914	68,350	4.080%	0.71184	65,825	
2028	97,095	3.620%	0.71332	69,260	4.080%	0.68394	66,407	
2029	101,910	3.620%	0.68840	70,155	4.080%	0.65713	66,968	
2030	106,859	3.620%	0.66435	70,992	4.080%	0.63137	67,467	
2031	111,906	3.620%	0.64114	71,748	4.080%	0.60662	67,884	
2032	117,303	3.620%	0.61874	72,580	4.080%	0.58284	68,369	
2033	122,672	3.620%	0.59713	73,251	4.080%	0.55999	68,695	
2034	128,179	3.620%	0.57627	73,865	4.080%	0.53804	68,965	
2035	134,056	3.620%	0.55614	74,553	4.080%	0.51695	69,300	
2036	139,922	3.620%	0.53671	75,097	4.080%	0.49669	69,497	
2037	145,759	3.620%	0.51796	75,497	4.080%	0.47722	69,558	
2038	151,860	3.620%	0.49986	75,909	4.080%	0.45851	69,629	
2039	158,142	3.620%	0.48240	76,287	4.080%	0.44054	69,667	
2040	164,369	3.620%	0.46555	76,521	4.080%	0.42327	69,572	
2041	170,541	3.620%	0.44928	76,621	4.080%	0.40668	69,355	
2042	176,402	3.620%	0.43359	76,486	4.080%	0.39073	68,926	
2043	181,989	3.620%	0.41844	76,151	4.080%	0.37542	68,322	
2044	187,186	3.620%	0.40382	75,590	4.080%	0.36070	67,518	
2045	191,609	3.620%	0.38971	74,673	4.080%	0.34656	66,404	
2046	195,568	3.620%	0.37610	73,553	4.080%	0.33298	65,120	
2047	198,856	3.620%	0.36296	72,176	4.080%	0.31992	63,619	
2048	201,421	3.620%	0.35028	70,554	4.080%	0.30738	61,914	
2049	202,961	3.620%	0.33804	68,609	4.080%	0.29533	59,941	
2050	203,637	7.000%	0.31593	64,334	4.080%	0.28376	57,783	
2051	203,664	7.000%	0.29526	60,134	4.080%	0.27263	55,526	
2052	203,246	7.000%	0.27594	56,084	4.080%	0.26195	53,240	
2053	202,202	7.000%	0.25789	52,146	4.080%	0.25168	50,890	
2054	200,311	7.000%	0.24102	48,279	4.080%	0.24181	48,438	
2055	198,131	7.000%	0.22525	44,629	4.080%	0.23233	46,033	
2065	175,766	7.000%	0.11451	20,126	4.080%	0.15576	27,377	
2075	120,962	7.000%	0.05821	7,041	4.080%	0.10442	12,631	
2085	41,386	7.000%	0.02959	1,225	4.080%	0.07000	2,897	
2095	4,124	7.000%	0.01504	62	4.080%	0.04693	194	
2105	117	7.000%	0.00765	1	4.080%	0.03146	4	
2115	3	7.000%	0.00389	-	4.080%	0.02109	-	

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER BARGAINING UNIT NUMBER 18 PSYCHIATRIC TECHNICIANS		
Fiscal Year Ending	June 30, 2017	June 30, 2018
Total OPEB Liability		
Service Cost	\$ 90,257	\$ 78,668
Interest on Total OPEB Liability	76,899	85,613
Changes of Benefit Terms	-	-
Difference between Expected and Actual Experience	-	(182,036)
Changes of Assumptions	(222,349)	(40,755)
Benefit Payments	(49,553)	(52,814)
Net Change in Total OPEB Liability	\$ (104,746)	\$ (111,324)
Total OPEB Liability - Beginning	\$ 2,197,374	\$ 2,092,628
Total OPEB Liability - Ending (a)	\$ 2,092,628	\$ 1,981,304
Plan Fiduciary Net Position		
Employer PayGO Contributions	\$ 49,553	\$ 52,814
Employer Pre Funding Contributions	-	3,799
Active Member Contributions	-	3,799
Net Investment Income	-	108
Benefit Payments	(49,553)	(52,814)
Administrative Expense	-	(2)
Other	-	-
Net Change in Plan Fiduciary Net Position	\$ -	\$ 7,704
Plan Fiduciary Net Position - Beginning	\$ -	\$ -
Plan Fiduciary Net Position - Ending (b)	\$ -	\$ 7,704
Net OPEB Liability - Ending (a) - (b)	\$ 2,092,628	\$ 1,973,600
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	0.000%	0.389%
Actuarially Determined Contribution (ADC)	\$ 103,287	\$ 102,587
Employer Contribution	\$ 49,553	\$ 56,613
Percentage of ADC made by Employer	48%	55%
Contribution Excess/(Shortfall)	\$ (53,734)	\$ (45,974)
Expected Return on Assets	\$ -	\$ 272
Investment (Gain)/Loss	\$ -	\$ 164
Average Expected Remaining Service	6.796418	7.343741
Blended Discount Rate Beginning of Year	3.398%	3.991%
Blended Discount Rate End of Year	3.991%	4.080%
Long-term Expected Return on Assets	7.280%	7.000%

Individual Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) BARGAINING UNIT NUMBER 18 PSYCHIATRIC TECHNICIANS		
Measured for the Plan's Fiscal Year Ending Applicable for the Sponsor's Fiscal Year Ending	June 30, 2017 June 30, 2018	June 30, 2018 June 30, 2019
OPEB Expense		
Service Cost	\$ 90,257	\$ 78,668
Interest on the Total OPEB Liability	76,899	85,613
Current-Period Benefit Changes	-	-
Active Member Contributions	-	(3,799)
Projected Earnings on Plan Investments	-	(272)
Operating Expenses	-	2
Other Changes in Plan Fiduciary Net Position	-	-
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(24,788)
Recognition of Outflow/(Inflow) due to Assumption Changes	(32,716)	(38,266)
Recognition of Outflow/(Inflow) due to Investment Experience	-	33
Net OPEB Expense	\$ 134,440	\$ 97,191
Reconciliation of Net OPEB Liability		
Net OPEB Liability beginning of year	\$ 2,197,374	\$ 2,092,628
OPEB Expense	134,440	97,191
Employer Contributions	(49,553)	(56,613)
Change in Outflow/(Inflow) due to Non-investment Experience	-	(157,248)
Change in Outflow/(Inflow) due to Assumption Changes	(189,633)	(2,489)
Change in Outflow/(Inflow) due to Investment Experience	-	131
Net OPEB Liability End of year	\$ 2,092,628	\$ 1,973,600
Deferred (Inflows)		
Non-investment Experience	\$ -	\$ (157,248)
Assumption Changes	\$ (189,633)	\$ (192,122)
Investment Experience	\$ -	\$ -
Deferred Outflows		
Non-investment Experience	\$ -	\$ -
Assumption Changes	\$ -	\$ -
Investment Experience	\$ -	\$ 131
Net OPEB Liability Sensitivity		
Baseline Discount Rate	3.991%	4.080%
Baseline Discount Rate and 4.5% Ultimate Trend	\$ 2,092,628	\$ 1,973,600
Increase Discount Rate by One Percentage Point	\$ 1,781,996	\$ 1,683,682
Decrease Discount Rate by One Percentage Point	\$ 2,487,465	\$ 2,341,245
Increase Trend Rate by One Percentage Point	\$ 2,523,950	\$ 2,314,191
Decrease Trend Rate by One Percentage Point	\$ 1,760,274	\$ 1,710,603

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES DEFERRED INFLOWS AND OUTFLOWS BARGAINING UNIT NUMBER 18 PSYCHIATRIC TECHNICIANS									
Valuation Date		6/30/2018							
Measurement Date		6/30/2018							
	Non-Investment Experience			Assumption Changes			Investment Experience		
	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization
Plan Year Beginning									
7/1/2016	\$ -	6.796418	\$ -	\$ (222,349)	6.796418	\$ (32,716)	\$ -	\$ 5.000000	\$ -
7/1/2017	\$ (182,036)	7.343741	\$ (24,788)	\$ (40,755)	7.343741	\$ (5,550)	\$ 164	5.000000	\$ 33
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Current Plan Year End	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2018	\$ -	\$ (24,788)	\$ (24,788)	\$ -	\$ (38,266)	\$ (38,266)	\$ 33	\$ -	\$ 33
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Future Plan Years Ending									
6/30/2019	\$ -	\$ (24,788)	\$ (24,788)	\$ -	\$ (38,266)	\$ (38,266)	\$ 33	\$ -	\$ 33
6/30/2020	\$ -	\$ (24,788)	\$ (24,788)	\$ -	\$ (38,266)	\$ (38,266)	\$ 33	\$ -	\$ 33
6/30/2021	\$ -	\$ (24,788)	\$ (24,788)	\$ -	\$ (38,266)	\$ (38,266)	\$ 33	\$ -	\$ 33
6/30/2022	\$ -	\$ (24,788)	\$ (24,788)	\$ -	\$ (38,266)	\$ (38,266)	\$ 32	\$ -	\$ 32
6/30/2023	\$ -	\$ (24,788)	\$ (24,788)	\$ -	\$ (31,603)	\$ (31,603)	\$ -	\$ -	\$ -
6/30/2024	\$ -	\$ (24,788)	\$ (24,788)	\$ -	\$ (5,550)	\$ (5,550)	\$ -	\$ -	\$ -
6/30/2025	\$ -	\$ (8,520)	\$ (8,520)	\$ -	\$ (1,905)	\$ (1,905)	\$ -	\$ -	\$ -
6/30/2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ (157,248)	\$ (157,248)	\$ -	\$ (192,122)	\$ (192,122)	\$ 131	\$ -	\$ 131
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2018			\$ (157,248)			\$ (2,489)			\$ 131

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 BARGAINING UNIT NUMBER 19 HEALTH AND SOCIAL SERVICES/PROFESSIONAL		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	5,725	5,791
Retired Participants ^a	<u>3,274</u>	<u>3,406</u>
Total Participants	8,999	9,197
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 690,090	\$ 703,866
Retired Participants	<u>527,520</u>	<u>531,815</u>
Total Participants	\$ 1,217,610	\$ 1,235,681
Actuarial Accrued Liability		
Active Participants	\$ 417,227	\$ 411,037
Retired Participants	<u>527,520</u>	<u>531,815</u>
Total Participants	\$ 944,747	\$ 942,852
Actuarial Value of Assets	\$ -	\$ 8,737
Unfunded Actuarial Accrued Liability	\$ 944,747	\$ 934,115
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 32,207	\$ 31,743
Administrative Expenses	91	93
Amortization of UAAL	<u>53,449</u>	<u>53,671</u>
Total ADC	\$ 85,747	\$ 85,507
Estimated Member Contributions	<u>(4,037)</u>	<u>(7,959)</u>
Net Employer ADC	\$ 81,710	\$ 77,548
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 25,579	\$ 24,956
Part B Reimbursement	4,281	5,301
Dental Claims	<u>2,033</u>	<u>2,074</u>
Total	\$ 31,893	\$ 32,331
Employer Implicit Costs	<u>4,684</u>	<u>4,730</u>
Total Employer Costs	\$ 36,577	\$ 37,061
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 793	\$ 2,313
Dental Claims	<u>640</u>	<u>654</u>
Total	\$ 1,433	\$ 2,967
Total Claims Costs	\$ 38,010	\$ 40,028

^aRetired participants with dental only coverage, 211 as of July 1, 2017, and 220 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING PROJECTIONS BASED ON JULY 1, 2018, ACTUARIAL VALUATION (\$ IN 000'S) BARGAINING UNIT NUMBER 19 HEALTH AND SOCIAL SERVICES/PROFESSIONAL									
Fiscal Year Beginning		7/1/2018							
Long-term Asset Return		7.000%							
Discount Rate		7.000%							
Year Plan is Fully Funded		2046							
FYE	Assets (boy)	Disbursements/ Benefits	Administrative Expenses	Pre-Fund Contribution	Investment Income	Assets (eoy)	Accrued Liability (eoy)	Funded Ratio	Normal Cost
2018	\$ -	\$ -	\$ 2	\$ 8,622	\$ 117	\$ 8,737	\$ 942,852	0.9%	\$ 31,743
2019	8,737	-	93	15,918	1,156	25,718	1,004,460	2.6%	30,518
2020	25,718	-	102	22,965	2,587	51,168	1,065,205	4.8%	29,478
2021	51,168	-	113	29,591	4,596	85,242	1,124,437	7.6%	28,480
2022	85,242	-	125	28,604	6,947	120,668	1,181,952	10.2%	27,488
2023	120,668	-	137	27,625	9,393	157,549	1,237,480	12.7%	26,512
2024	157,549	-	149	26,661	11,941	196,002	1,290,868	15.2%	25,572
2025	196,002	-	161	25,733	14,600	236,174	1,342,138	17.6%	24,634
2026	236,174	-	171	24,806	17,380	278,189	1,391,485	20.0%	23,692
2027	278,189	-	182	23,875	20,288	322,170	1,438,816	22.4%	22,755
2028	322,170	-	193	22,948	23,335	368,260	1,484,122	24.8%	21,822
2029	368,260	-	203	22,025	26,529	416,611	1,527,348	27.3%	20,889
2030	416,611	-	214	21,103	29,881	467,381	1,568,190	29.8%	19,946
2031	467,381	-	224	20,170	33,403	520,730	1,606,398	32.4%	19,000
2032	520,730	-	235	19,236	37,105	576,836	1,641,819	35.1%	18,046
2033	576,836	-	246	18,292	40,999	635,881	1,674,248	38.0%	17,050
2034	635,881	-	257	17,307	45,098	698,029	1,703,299	41.0%	16,018
2035	698,029	-	268	16,286	49,413	763,460	1,728,674	44.2%	14,968
2036	763,460	-	279	15,247	53,957	832,385	1,750,183	47.6%	13,904
2037	832,385	-	290	14,194	58,745	905,034	1,767,619	51.2%	12,837
2038	905,034	-	300	13,138	63,794	981,666	1,780,799	55.1%	11,777
2039	981,666	-	310	12,088	69,122	1,062,566	1,789,595	59.4%	10,735
2040	1,062,566	-	320	11,054	74,749	1,148,049	1,794,082	64.0%	9,694
2041	1,148,049	-	328	10,022	80,697	1,238,440	1,794,156	69.0%	8,662
2042	1,238,440	-	337	8,999	86,989	1,334,091	1,789,589	74.5%	7,666
2043	1,334,091	-	344	8,011	93,650	1,435,408	1,780,613	80.6%	6,701
2044	1,435,408	-	350	7,051	100,709	1,542,818	1,767,528	87.3%	5,775
2045	1,542,818	-	356	6,131	108,196	1,656,789	1,750,292	94.7%	4,894
2046	1,656,789	28,831	360	5,254	115,152	1,748,004	1,728,921	101.1%	4,064
2047	1,748,004	145,597	364	-	117,338	1,719,381	1,703,673	100.9%	3,306
2048	1,719,381	146,388	366	-	115,307	1,687,934	1,675,030	100.8%	2,630
2049	1,687,934	146,906	367	-	113,088	1,653,749	1,643,124	100.6%	2,046
2050	1,653,749	146,778	367	-	110,699	1,617,303	1,608,494	100.5%	1,559
2051	1,617,303	145,968	365	-	108,176	1,579,146	1,571,757	100.5%	1,157
2052	1,579,146	145,026	363	-	105,538	1,539,295	1,532,994	100.4%	835
2053	1,539,295	143,558	359	-	102,799	1,498,177	1,492,693	100.4%	587
2054	1,498,177	141,956	355	-	99,976	1,455,842	1,450,963	100.3%	404
2055	1,455,842	140,413	351	-	97,065	1,412,143	1,407,713	100.3%	272
2056	1,412,143	138,421	346	-	94,075	1,367,451	1,363,356	100.3%	180

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM
DEVELOPMENT OF GASB NOS. 74 AND 75 SINGLE EQUIVALENT DISCOUNT RATE, (\$ IN 000'S)
BARGAINING UNIT NUMBER 19
HEALTH AND SOCIAL SERVICES/PROFESSIONAL

20-Year GO Municipal Bond Rate at June 30, 2018 **3.620%**
 Long-Term Investment Return **7.000%**
 Year Plan is Fully Funded **2046**
 Single Equivalent Rate **4.159%**

Present Value of Benefits \$ **2,149,282** \$ **2,149,282**

FYE	Net Employer Benefits	Cross-over Investment Return	Discount Factor	Discounted Benefit Payment	Single Equivalent Return	Discount Factor	Discounted Benefit Payment
2019	\$ 37,061	3.620%	0.98238	\$ 36,408	4.159%	0.97983	\$ 36,313
2020	40,797	3.620%	0.94806	38,678	4.159%	0.94071	38,379
2021	45,292	3.620%	0.91494	41,439	4.159%	0.90316	40,906
2022	49,926	3.620%	0.88297	44,084	4.159%	0.86710	43,291
2023	54,714	3.620%	0.85213	46,623	4.159%	0.83248	45,548
2024	59,531	3.620%	0.82236	48,955	4.159%	0.79924	47,579
2025	64,217	3.620%	0.79363	50,964	4.159%	0.76733	49,276
2026	68,576	3.620%	0.76590	52,523	4.159%	0.73670	50,520
2027	72,889	3.620%	0.73914	53,875	4.159%	0.70728	51,553
2028	77,079	3.620%	0.71332	54,982	4.159%	0.67905	52,340
2029	81,194	3.620%	0.68840	55,894	4.159%	0.65193	52,933
2030	85,456	3.620%	0.66435	56,773	4.159%	0.62591	53,488
2031	89,792	3.620%	0.64114	57,569	4.159%	0.60092	53,957
2032	94,093	3.620%	0.61874	58,219	4.159%	0.57692	54,284
2033	98,395	3.620%	0.59713	58,754	4.159%	0.55389	54,500
2034	102,826	3.620%	0.57627	59,255	4.159%	0.53178	54,680
2035	107,278	3.620%	0.55614	59,661	4.159%	0.51055	54,770
2036	111,646	3.620%	0.53671	59,921	4.159%	0.49016	54,725
2037	115,940	3.620%	0.51796	60,052	4.159%	0.47059	54,560
2038	120,131	3.620%	0.49986	60,049	4.159%	0.45180	54,276
2039	124,166	3.620%	0.48240	59,898	4.159%	0.43377	53,859
2040	127,849	3.620%	0.46555	59,520	4.159%	0.41645	53,243
2041	131,343	3.620%	0.44928	59,010	4.159%	0.39982	52,514
2042	134,770	3.620%	0.43359	58,434	4.159%	0.38386	51,732
2043	137,692	3.620%	0.41844	57,616	4.159%	0.36853	50,744
2044	140,061	3.620%	0.40382	56,560	4.159%	0.35382	49,556
2045	142,232	3.620%	0.38971	55,430	4.159%	0.33969	48,315
2046	144,153	3.620%	0.37610	54,216	4.159%	0.32613	47,013
2047	145,597	7.000%	0.35149	51,176	4.159%	0.31311	45,588
2048	146,388	7.000%	0.32850	48,088	4.159%	0.30061	44,006
2049	146,906	7.000%	0.30701	45,101	4.159%	0.28861	42,398
2050	146,778	7.000%	0.28692	42,114	4.159%	0.27708	40,670
2051	145,968	7.000%	0.26815	39,142	4.159%	0.26602	38,831
2052	145,026	7.000%	0.25061	36,345	4.159%	0.25540	37,040
2053	143,558	7.000%	0.23422	33,623	4.159%	0.24520	35,201
2054	141,956	7.000%	0.21889	31,073	4.159%	0.23541	33,418
2055	140,413	7.000%	0.20457	28,725	4.159%	0.22601	31,735
2065	119,169	7.000%	0.10399	12,393	4.159%	0.15038	17,921
2075	73,432	7.000%	0.05287	3,882	4.159%	0.10006	7,347
2085	20,807	7.000%	0.02687	559	4.159%	0.06657	1,385
2095	1,459	7.000%	0.01366	20	4.159%	0.04429	65
2105	63	7.000%	0.00694	-	4.159%	0.02947	2
2115	23	7.000%	0.00353	-	4.159%	0.01961	-

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER BARGAINING UNIT NUMBER 19 HEALTH AND SOCIAL SERVICES/PROFESSIONAL		
Fiscal Year Ending	June 30, 2017	June 30, 2018
Total OPEB Liability		
Service Cost	\$ 78,546	\$ 69,599
Interest on Total OPEB Liability	55,156	62,178
Changes of Benefit Terms	-	-
Difference between Expected and Actual Experience	-	(128,994)
Changes of Assumptions	(141,348)	(44,590)
Benefit Payments	(34,938)	(37,002)
Net Change in Total OPEB Liability	\$ (42,584)	\$ (78,809)
Total OPEB Liability - Beginning	\$ 1,520,526	\$ 1,477,942
Total OPEB Liability - Ending (a)	\$ 1,477,942	\$ 1,399,133
Plan Fiduciary Net Position		
Employer PayGO Contributions	\$ 34,938	\$ 37,002
Employer Pre Funding Contributions	-	4,311
Active Member Contributions	-	4,311
Net Investment Income	-	117
Benefit Payments	(34,938)	(37,002)
Administrative Expense	-	(2)
Other	-	-
Net Change in Plan Fiduciary Net Position	\$ -	\$ 8,737
Plan Fiduciary Net Position - Beginning	\$ -	\$ -
Plan Fiduciary Net Position - Ending (b)	\$ -	\$ 8,737
Net OPEB Liability - Ending (a) - (b)	\$ 1,477,942	\$ 1,390,396
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	0.000%	0.624%
Actuarially Determined Contribution (ADC)	\$ 83,250	\$ 81,436
Employer Contribution	\$ 34,938	\$ 41,313
Percentage of ADC made by Employer	42%	51%
Contribution Excess/(Shortfall)	\$ (48,312)	\$ (40,123)
Expected Return on Assets	\$ -	\$ 308
Investment (Gain)/Loss	\$ -	\$ 191
Average Expected Remaining Service	6.796642	7.229237
Blended Discount Rate Beginning of Year	3.487%	4.066%
Blended Discount Rate End of Year	4.066%	4.159%
Long-term Expected Return on Assets	7.280%	7.000%

Individual Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) BARGAINING UNIT NUMBER 19 HEALTH AND SOCIAL SERVICES/PROFESSIONAL		
Measured for the Plan's Fiscal Year Ending	June 30, 2017	June 30, 2018
Applicable for the Sponsor's Fiscal Year Ending	June 30, 2018	June 30, 2019
OPEB Expense		
Service Cost	\$ 78,546	\$ 69,599
Interest on the Total OPEB Liability	55,156	62,178
Current-Period Benefit Changes	-	-
Active Member Contributions	-	(4,311)
Projected Earnings on Plan Investments	-	(308)
Operating Expenses	-	2
Other Changes in Plan Fiduciary Net Position	-	-
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(17,843)
Recognition of Outflow/(Inflow) due to Assumption Changes	(20,797)	(26,965)
Recognition of Outflow/(Inflow) due to Investment Experience	-	38
Net OPEB Expense	\$ 112,905	\$ 82,390
Reconciliation of Net OPEB Liability		
Net OPEB Liability beginning of year	\$ 1,520,526	\$ 1,477,942
OPEB Expense	112,905	82,390
Employer Contributions	(34,938)	(41,313)
Change in Outflow/(Inflow) due to Non-investment Experience	-	(111,151)
Change in Outflow/(Inflow) due to Assumption Changes	(120,551)	(17,625)
Change in Outflow/(Inflow) due to Investment Experience	-	153
Net OPEB Liability End of year	\$ 1,477,942	\$ 1,390,396
Deferred (Inflows)		
Non-investment Experience	\$ -	\$ (111,151)
Assumption Changes	\$ (120,551)	\$ (138,176)
Investment Experience	\$ -	\$ -
Deferred Outflows		
Non-investment Experience	\$ -	\$ -
Assumption Changes	\$ -	\$ -
Investment Experience	\$ -	\$ 153
Net OPEB Liability Sensitivity		
Baseline Discount Rate	4.066%	4.159%
Baseline Discount Rate and 4.5% Ultimate Trend	\$ 1,477,942	\$ 1,390,396
Increase Discount Rate by One Percentage Point	\$ 1,272,485	\$ 1,198,395
Decrease Discount Rate by One Percentage Point	\$ 1,734,355	\$ 1,629,616
Increase Trend Rate by One Percentage Point	\$ 1,759,591	\$ 1,611,240
Decrease Trend Rate by One Percentage Point	\$ 1,256,847	\$ 1,216,561

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES DEFERRED INFLOWS AND OUTFLOWS BARGAINING UNIT NUMBER 19 HEALTH AND SOCIAL SERVICES/PROFESSIONAL									
Valuation Date		6/30/2018							
Measurement Date		6/30/2018							
	Non-Investment Experience			Assumption Changes			Investment Experience		
	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization
Plan Year Beginning									
7/1/2016	\$ -	6.796642	\$ -	\$ (141,348)	6.796642	\$ (20,797)	\$ -	\$ 5.000000	\$ -
7/1/2017	\$ (128,994)	7.229237	\$ (17,843)	\$ (44,590)	7.229237	\$ (6,168)	\$ 191	5.000000	\$ 38
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Current Plan Year End	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2018	\$ -	\$ (17,843)	\$ (17,843)	\$ -	\$ (26,965)	\$ (26,965)	\$ 38	\$ -	\$ 38
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Future Plan Years Ending									
6/30/2019	\$ -	\$ (17,843)	\$ (17,843)	\$ -	\$ (26,965)	\$ (26,965)	\$ 38	\$ -	\$ 38
6/30/2020	\$ -	\$ (17,843)	\$ (17,843)	\$ -	\$ (26,965)	\$ (26,965)	\$ 38	\$ -	\$ 38
6/30/2021	\$ -	\$ (17,843)	\$ (17,843)	\$ -	\$ (26,965)	\$ (26,965)	\$ 38	\$ -	\$ 38
6/30/2022	\$ -	\$ (17,843)	\$ (17,843)	\$ -	\$ (26,965)	\$ (26,965)	\$ 39	\$ -	\$ 39
6/30/2023	\$ -	\$ (17,843)	\$ (17,843)	\$ -	\$ (22,734)	\$ (22,734)	\$ -	\$ -	\$ -
6/30/2024	\$ -	\$ (17,843)	\$ (17,843)	\$ -	\$ (6,168)	\$ (6,168)	\$ -	\$ -	\$ -
6/30/2025	\$ -	\$ (4,093)	\$ (4,093)	\$ -	\$ (1,414)	\$ (1,414)	\$ -	\$ -	\$ -
6/30/2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ (111,151)	\$ (111,151)	\$ -	\$ (138,176)	\$ (138,176)	\$ 153	\$ -	\$ 153
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2018			\$ (111,151)			\$ (17,625)			\$ 153

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 BARGAINING UNIT NUMBER 20 MEDICAL AND SOCIAL SERVICES		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	4,884	5,102
Retired Participants ^a	<u>1,128</u>	<u>1,177</u>
Total Participants	6,012	6,279
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 506,303	\$ 523,334
Retired Participants	<u>194,533</u>	<u>197,758</u>
Total Participants	\$ 700,836	\$ 721,092
Actuarial Accrued Liability		
Active Participants	\$ 260,150	\$ 264,587
Retired Participants	<u>194,533</u>	<u>197,758</u>
Total Participants	\$ 454,683	\$ 462,345
Actuarial Value of Assets	\$ -	\$ -
Unfunded Actuarial Accrued Liability	\$ 454,683	\$ 462,345
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 27,346	\$ 27,105
Administrative Expenses	33	34
Amortization of UAAL	<u>25,724</u>	<u>26,565</u>
Total ADC	\$ 53,103	\$ 53,704
Estimated Member Contributions	-	<u>(3,392)</u>
Net Employer ADC	\$ 53,103	\$ 50,312
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 9,669	\$ 9,641
Part B Reimbursement	1,193	1,462
Dental Claims	<u>697</u>	<u>719</u>
Total	\$ 11,559	\$ 11,822
Employer Implicit Costs	<u>1,681</u>	<u>1,736</u>
Total Employer Costs	\$ 13,240	\$ 13,558
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 414	\$ 859
Dental Claims	<u>213</u>	<u>221</u>
Total	\$ 627	\$ 1,080
Total Claims Costs	\$ 13,867	\$ 14,638

^aRetired participants with dental only coverage, 114 as of July 1, 2017, and 126 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING PROJECTIONS BASED ON JULY 1, 2018, ACTUARIAL VALUATION (\$ IN 000'S) BARGAINING UNIT NUMBER 20 MEDICAL AND SOCIAL SERVICES									
Fiscal Year Beginning		7/1/2018							
Long-term Asset Return		7.000%							
Discount Rate		7.000%							
Year Plan is Fully Funded		2046							
FYE	Assets (boy)	Disbursements/ Benefits	Administrative Expenses	Pre-Fund Contribution	Investment Income	Assets (eoy)	Accrued Liability (eoy)	Funded Ratio	Normal Cost
2018	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 462,345	0.0%	\$ 27,105
2019	-	-	34	6,785	232	6,983	509,678	1.4%	26,483
2020	6,983	-	38	13,261	944	21,150	558,110	3.8%	25,909
2021	21,150	-	43	19,464	2,149	42,720	607,200	7.0%	25,323
2022	42,720	-	48	25,371	3,862	71,905	656,809	10.9%	24,700
2023	71,905	-	54	24,754	5,883	102,488	706,826	14.5%	24,041
2024	102,488	-	60	24,101	8,001	134,530	757,081	17.8%	23,339
2025	134,530	-	67	23,406	10,220	168,089	807,400	20.8%	22,587
2026	168,089	-	74	22,661	12,543	203,219	857,477	23.7%	21,784
2027	203,219	-	81	21,865	14,975	239,978	907,081	26.5%	20,924
2028	239,978	-	90	21,014	17,518	278,420	955,784	29.1%	20,013
2029	278,420	-	99	20,112	20,178	318,611	1,003,261	31.8%	19,065
2030	318,611	-	108	19,173	22,959	360,635	1,049,308	34.4%	18,087
2031	360,635	-	117	18,204	25,867	404,589	1,093,669	37.0%	17,064
2032	404,589	-	127	17,191	28,908	450,561	1,136,025	39.7%	16,006
2033	450,561	-	137	16,143	32,090	498,657	1,175,953	42.4%	14,933
2034	498,657	-	148	15,081	35,420	549,010	1,213,023	45.3%	13,844
2035	549,010	-	159	14,003	38,907	601,761	1,246,927	48.3%	12,747
2036	601,761	-	170	12,917	42,562	657,070	1,277,498	51.4%	11,656
2037	657,070	-	181	11,837	46,396	715,122	1,304,474	54.8%	10,587
2038	715,122	-	192	10,779	50,423	776,132	1,327,625	58.5%	9,559
2039	776,132	-	203	9,762	54,658	840,349	1,346,845	62.4%	8,572
2040	840,349	-	213	8,786	59,119	908,041	1,362,115	66.7%	7,623
2041	908,041	-	223	7,846	63,825	979,489	1,373,329	71.3%	6,730
2042	979,489	-	233	6,962	68,796	1,055,014	1,380,412	76.4%	5,891
2043	1,055,014	-	242	6,133	74,053	1,134,958	1,383,411	82.0%	5,097
2044	1,134,958	-	250	5,347	79,622	1,219,677	1,382,117	88.2%	4,365
2045	1,219,677	-	259	4,623	85,527	1,309,568	1,376,557	95.1%	3,695
2046	1,309,568	22,185	265	3,960	91,033	1,382,111	1,367,061	101.1%	3,079
2047	1,382,111	108,552	271	-	93,003	1,366,291	1,353,756	100.9%	2,528
2048	1,366,291	110,707	277	-	91,822	1,347,129	1,336,703	100.8%	2,042
2049	1,347,129	112,427	281	-	90,421	1,324,842	1,316,156	100.7%	1,619
2050	1,324,842	113,590	284	-	88,821	1,299,789	1,292,516	100.6%	1,258
2051	1,299,789	114,411	286	-	87,039	1,272,131	1,265,987	100.5%	956
2052	1,272,131	114,796	287	-	85,089	1,242,137	1,236,879	100.4%	710
2053	1,242,137	114,767	287	-	82,991	1,210,074	1,205,500	100.4%	514
2054	1,210,074	114,384	286	-	80,760	1,176,164	1,172,112	100.3%	363
2055	1,176,164	113,692	284	-	78,410	1,140,598	1,136,940	100.3%	252
2056	1,140,598	112,797	282	-	75,951	1,103,470	1,100,114	100.3%	172

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM								
DEVELOPMENT OF GASB NOS. 74 AND 75 SINGLE EQUIVALENT DISCOUNT RATE, (\$ IN 000'S)								
BARGAINING UNIT NUMBER 20								
MEDICAL AND SOCIAL SERVICES								
20-Year GO Municipal Bond Rate at June 30, 2018			3.620%					
Long-Term Investment Return			7.000%					
Year Plan is Fully Funded			2046					
Single Equivalent Rate			4.219%					
Present Value of Benefits			\$ 1,345,548			\$ 1,345,548		
FYE	Net Employer Benefits	Cross-over Investment Return	Discount Factor	Discounted Benefit Payment	Single Equivalent Return	Discount Factor	Discounted Benefit Payment	
2019	\$ 13,558	3.620%	0.98238	\$ 13,320	4.219%	0.97955	\$ 13,282	
2020	15,057	3.620%	0.94806	14,275	4.219%	0.93989	14,152	
2021	17,103	3.620%	0.91494	15,649	4.219%	0.90184	15,425	
2022	19,318	3.620%	0.88297	17,057	4.219%	0.86533	16,716	
2023	21,635	3.620%	0.85213	18,435	4.219%	0.83030	17,963	
2024	24,108	3.620%	0.82236	19,825	4.219%	0.79668	19,206	
2025	26,721	3.620%	0.79363	21,207	4.219%	0.76443	20,427	
2026	29,582	3.620%	0.76590	22,657	4.219%	0.73348	21,698	
2027	32,596	3.620%	0.73914	24,093	4.219%	0.70379	22,941	
2028	35,936	3.620%	0.71332	25,634	4.219%	0.67529	24,267	
2029	39,475	3.620%	0.68840	27,175	4.219%	0.64795	25,578	
2030	43,089	3.620%	0.66435	28,626	4.219%	0.62172	26,789	
2031	46,823	3.620%	0.64114	30,020	4.219%	0.59655	27,932	
2032	50,706	3.620%	0.61874	31,374	4.219%	0.57240	29,024	
2033	54,823	3.620%	0.59713	32,737	4.219%	0.54923	30,110	
2034	59,179	3.620%	0.57627	34,103	4.219%	0.52699	31,187	
2035	63,622	3.620%	0.55614	35,383	4.219%	0.50566	32,171	
2036	68,003	3.620%	0.53671	36,498	4.219%	0.48518	32,994	
2037	72,420	3.620%	0.51796	37,510	4.219%	0.46554	33,714	
2038	76,837	3.620%	0.49986	38,408	4.219%	0.44669	34,323	
2039	81,141	3.620%	0.48240	39,143	4.219%	0.42861	34,778	
2040	85,239	3.620%	0.46555	39,683	4.219%	0.41126	35,055	
2041	89,212	3.620%	0.44928	40,082	4.219%	0.39461	35,204	
2042	93,041	3.620%	0.43359	40,342	4.219%	0.37863	35,229	
2043	96,602	3.620%	0.41844	40,422	4.219%	0.36330	35,096	
2044	100,133	3.620%	0.40382	40,436	4.219%	0.34860	34,906	
2045	103,413	3.620%	0.38971	40,301	4.219%	0.33448	34,590	
2046	106,149	3.620%	0.37610	39,922	4.219%	0.32094	34,068	
2047	108,552	7.000%	0.35149	38,155	4.219%	0.30795	33,428	
2048	110,707	7.000%	0.32850	36,367	4.219%	0.29548	32,712	
2049	112,427	7.000%	0.30701	34,516	4.219%	0.28352	31,875	
2050	113,590	7.000%	0.28692	32,592	4.219%	0.27204	30,901	
2051	114,411	7.000%	0.26815	30,680	4.219%	0.26103	29,864	
2052	114,796	7.000%	0.25061	28,769	4.219%	0.25046	28,752	
2053	114,767	7.000%	0.23422	26,880	4.219%	0.24032	27,581	
2054	114,384	7.000%	0.21889	25,038	4.219%	0.23059	26,376	
2055	113,692	7.000%	0.20457	23,258	4.219%	0.22125	25,155	
2065	96,138	7.000%	0.10399	9,998	4.219%	0.14636	14,070	
2075	56,877	7.000%	0.05287	3,007	4.219%	0.09681	5,506	
2085	16,785	7.000%	0.02687	451	4.219%	0.06404	1,075	
2095	1,417	7.000%	0.01366	19	4.219%	0.04236	60	
2105	25	7.000%	0.00694	-	4.219%	0.02802	1	
2115	-	7.000%	0.00353	-	4.219%	0.01854		

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER BARGAINING UNIT NUMBER 20 MEDICAL AND SOCIAL SERVICES		
Fiscal Year Ending	June 30, 2017	June 30, 2018
Total OPEB Liability		
Service Cost	\$ 63,734	\$ 56,886
Interest on Total OPEB Liability	28,486	32,788
Changes of Benefit Terms	-	-
Difference between Expected and Actual Experience	-	(81,689)
Changes of Assumptions	(77,695)	(22,961)
Benefit Payments	(12,646)	(13,466)
Net Change in Total OPEB Liability	\$ 1,879	\$ (28,442)
Total OPEB Liability - Beginning	\$ 740,456	\$ 742,335
Total OPEB Liability - Ending (a)	\$ 742,335	\$ 713,893
Plan Fiduciary Net Position		
Employer PayGO Contributions	\$ 12,646	\$ 13,466
Employer Pre Funding Contributions	-	-
Active Member Contributions	-	-
Net Investment Income	-	-
Benefit Payments	(12,646)	(13,466)
Administrative Expense	-	-
Other	-	-
Net Change in Plan Fiduciary Net Position	\$ -	\$ -
Plan Fiduciary Net Position - Beginning	\$ -	\$ -
Plan Fiduciary Net Position - Ending (b)	\$ -	\$ -
Net OPEB Liability - Ending (a) - (b)	\$ 742,335	\$ 713,893
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	0.000%	0.000%
Actuarially Determined Contribution (ADC)	\$ 51,556	\$ 53,103
Employer Contribution	\$ 12,646	\$ 13,466
Percentage of ADC made by Employer	25%	25%
Contribution Excess/(Shortfall)	\$ (38,910)	\$ (39,637)
Expected Return on Assets	\$ -	\$ -
Investment (Gain)/Loss	\$ -	\$ -
Average Expected Remaining Service	9.320799	9.781090
Blended Discount Rate Beginning of Year	3.570%	4.137%
Blended Discount Rate End of Year	4.137%	4.219%
Long-term Expected Return on Assets	7.280%	7.000%

Individual Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) BARGAINING UNIT NUMBER 20 MEDICAL AND SOCIAL SERVICES		
Measured for the Plan's Fiscal Year Ending	June 30, 2017	June 30, 2018
Applicable for the Sponsor's Fiscal Year Ending	June 30, 2018	June 30, 2019
OPEB Expense		
Service Cost	\$ 63,734	\$ 56,886
Interest on the Total OPEB Liability	28,486	32,788
Current-Period Benefit Changes	-	-
Active Member Contributions	-	-
Projected Earnings on Plan Investments	-	-
Operating Expenses	-	-
Other Changes in Plan Fiduciary Net Position	-	-
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(8,352)
Recognition of Outflow/(Inflow) due to Assumption Changes	(8,336)	(10,683)
Recognition of Outflow/(Inflow) due to Investment Experience	-	-
Net OPEB Expense	\$ 83,884	\$ 70,639
Reconciliation of Net OPEB Liability		
Net OPEB Liability beginning of year	\$ 740,456	\$ 742,335
OPEB Expense	83,884	70,639
Employer Contributions	(12,646)	(13,466)
Change in Outflow/(Inflow) due to Non-investment Experience	-	(73,337)
Change in Outflow/(Inflow) due to Assumption Changes	(69,359)	(12,278)
Change in Outflow/(Inflow) due to Investment Experience	-	-
Net OPEB Liability End of year	\$ 742,335	\$ 713,893
Deferred (Inflows)		
Non-investment Experience	\$ -	\$ (73,337)
Assumption Changes	\$ (69,359)	\$ (81,637)
Investment Experience	\$ -	\$ -
Deferred Outflows		
Non-investment Experience	\$ -	\$ -
Assumption Changes	\$ -	\$ -
Investment Experience	\$ -	\$ -
Net OPEB Liability Sensitivity		
Baseline Discount Rate	4.137%	4.219%
Baseline Discount Rate and 4.5% Ultimate Trend	\$ 742,335	\$ 713,893
Increase Discount Rate by One Percentage Point	\$ 628,191	\$ 605,158
Decrease Discount Rate by One Percentage Point	\$ 886,969	\$ 851,359
Increase Trend Rate by One Percentage Point	\$ 910,403	\$ 847,757
Decrease Trend Rate by One Percentage Point	\$ 613,703	\$ 610,820

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES DEFERRED INFLOWS AND OUTFLOWS BARGAINING UNIT NUMBER 20 MEDICAL AND SOCIAL SERVICES									
Valuation Date		6/30/2018							
Measurement Date		6/30/2018							
	Non-Investment Experience			Assumption Changes			Investment Experience		
	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization
Plan Year Beginning									
7/1/2016	\$ -	9.320799	\$ -	\$ (77,695)	9.320799	\$ (8,336)	\$ -	5.000000	\$ -
7/1/2017	\$ (81,689)	9.781090	\$ (8,352)	\$ (22,961)	9.781090	\$ (2,347)	\$ -	5.000000	\$ -
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Current Plan Year End	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2018	\$ -	\$ (8,352)	\$ (8,352)	\$ -	\$ (10,683)	\$ (10,683)	\$ -	\$ -	\$ -
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Future Plan Years Ending									
6/30/2019	\$ -	\$ (8,352)	\$ (8,352)	\$ -	\$ (10,683)	\$ (10,683)	\$ -	\$ -	\$ -
6/30/2020	\$ -	\$ (8,352)	\$ (8,352)	\$ -	\$ (10,683)	\$ (10,683)	\$ -	\$ -	\$ -
6/30/2021	\$ -	\$ (8,352)	\$ (8,352)	\$ -	\$ (10,683)	\$ (10,683)	\$ -	\$ -	\$ -
6/30/2022	\$ -	\$ (8,352)	\$ (8,352)	\$ -	\$ (10,683)	\$ (10,683)	\$ -	\$ -	\$ -
6/30/2023	\$ -	\$ (8,352)	\$ (8,352)	\$ -	\$ (10,683)	\$ (10,683)	\$ -	\$ -	\$ -
6/30/2024	\$ -	\$ (8,352)	\$ (8,352)	\$ -	\$ (10,683)	\$ (10,683)	\$ -	\$ -	\$ -
6/30/2025	\$ -	\$ (8,352)	\$ (8,352)	\$ -	\$ (10,683)	\$ (10,683)	\$ -	\$ -	\$ -
6/30/2026	\$ -	\$ (8,352)	\$ (8,352)	\$ -	\$ (5,018)	\$ (5,018)	\$ -	\$ -	\$ -
6/30/2027	\$ -	\$ (6,521)	\$ (6,521)	\$ -	\$ (1,838)	\$ (1,838)	\$ -	\$ -	\$ -
Total	\$ -	\$ (73,337)	\$ (73,337)	\$ -	\$ (81,637)	\$ (81,637)	\$ -	\$ -	\$ -
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2018			\$ (73,337)			\$ (12,278)			\$ -

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 BARGAINING UNIT NUMBER 21 EDUCATIONAL CONSULTANT AND LIBRARY		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	623	601
Retired Participants ^a	<u>748</u>	<u>766</u>
Total Participants	1,371	1,367
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 80,706	\$ 73,280
Retired Participants	<u>115,198</u>	<u>113,874</u>
Total Participants	\$ 195,904	\$ 187,154
Actuarial Accrued Liability		
Active Participants	\$ 56,640	\$ 50,654
Retired Participants	<u>115,198</u>	<u>113,874</u>
Total Participants	\$ 171,838	\$ 164,528
Actuarial Value of Assets	\$ -	\$ -
Unfunded Actuarial Accrued Liability	\$ 171,838	\$ 164,528
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 3,075	\$ 2,769
Administrative Expenses	20	20
Amortization of UAAL	<u>9,722</u>	<u>9,453</u>
Total ADC	\$ 12,817	\$ 12,242
Estimated Member Contributions	-	(349)
Net Employer ADC	\$ 12,817	\$ 11,893
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 5,566	\$ 5,307
Part B Reimbursement	1,136	1,397
Dental Claims	<u>476</u>	<u>475</u>
Total	\$ 7,178	\$ 7,179
Employer Implicit Costs	<u>965</u>	<u>910</u>
Total Employer Costs	\$ 8,143	\$ 8,089
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 137	\$ 350
Dental Claims	<u>152</u>	<u>151</u>
Total	\$ 289	\$ 501
Total Claims Costs	\$ 8,432	\$ 8,590

^aRetired participants with dental only coverage, 37 as of July 1, 2017, and 41 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING PROJECTIONS BASED ON JULY 1, 2018, ACTUARIAL VALUATION (\$ IN 000'S) BARGAINING UNIT NUMBER 21 EDUCATIONAL CONSULTANT AND LIBRARY									
Fiscal Year Beginning		7/1/2018							
Long-term Asset Return		7.000%							
Discount Rate		7.000%							
Year Plan is Fully Funded		2049							
FYE	Assets (boy)	Disbursements/ Benefits	Administrative Expenses	Pre-Fund Contribution	Investment Income	Assets (eoy)	Accrued Liability (eoy)	Funded Ratio	Normal Cost
2018	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 164,528	0.0%	\$ 2,769
2019	-	-	20	697	23	700	170,635	0.4%	2,644
2020	700	-	21	1,333	94	2,106	176,576	1.2%	2,522
2021	2,106	-	23	1,909	212	4,204	182,020	2.3%	2,399
2022	4,204	-	25	2,424	377	6,980	186,860	3.7%	2,283
2023	6,980	-	27	2,310	567	9,830	191,131	5.1%	2,171
2024	9,830	-	29	2,200	763	12,764	194,824	6.6%	2,056
2025	12,764	-	31	2,086	964	15,783	197,979	8.0%	1,940
2026	15,783	-	32	1,972	1,172	18,895	200,574	9.4%	1,826
2027	18,895	-	34	1,859	1,385	22,105	202,640	10.9%	1,718
2028	22,105	-	35	1,753	1,606	25,429	204,280	12.4%	1,610
2029	25,429	-	36	1,646	1,835	28,874	205,408	14.1%	1,496
2030	28,874	-	37	1,534	2,073	32,444	205,991	15.7%	1,392
2031	32,444	-	38	1,430	2,319	36,155	206,100	17.5%	1,295
2032	36,155	-	39	1,334	2,575	40,025	205,688	19.5%	1,197
2033	40,025	-	40	1,237	2,843	44,065	204,713	21.5%	1,098
2034	44,065	-	41	1,139	3,122	48,285	203,255	23.8%	1,003
2035	48,285	-	42	1,045	3,414	52,702	201,246	26.2%	912
2036	52,702	-	43	954	3,721	57,334	198,677	28.9%	821
2037	57,334	-	43	865	4,042	62,198	195,621	31.8%	731
2038	62,198	-	44	774	4,379	67,307	192,061	35.0%	642
2039	67,307	-	44	686	4,734	72,683	187,989	38.7%	557
2040	72,683	-	44	601	5,107	78,347	183,477	42.7%	475
2041	78,347	-	44	519	5,501	84,323	178,553	47.2%	398
2042	84,323	-	44	442	5,916	90,637	173,253	52.3%	330
2043	90,637	-	44	373	6,356	97,322	167,673	58.0%	269
2044	97,322	-	43	312	6,822	104,413	161,924	64.5%	218
2045	104,413	-	42	260	7,316	111,947	156,057	71.7%	174
2046	111,947	-	41	215	7,842	119,963	150,084	79.9%	137
2047	119,963	-	40	177	8,402	128,502	144,102	89.2%	106
2048	128,502	-	39	145	8,999	137,607	138,130	99.6%	81
2049	137,607	14,182	38	119	9,147	132,653	132,143	100.4%	62
2050	132,653	14,753	37	-	8,777	126,640	126,197	100.4%	46
2051	126,640	14,258	36	-	8,373	120,719	120,329	100.3%	33
2052	120,719	13,804	35	-	7,974	114,854	114,508	100.3%	24
2053	114,854	13,336	33	-	7,580	109,065	108,753	100.3%	17
2054	109,065	12,846	32	-	7,192	103,379	103,094	100.3%	11
2055	103,379	12,389	31	-	6,809	97,768	97,507	100.3%	8
2056	97,768	11,937	30	-	6,432	92,233	91,992	100.3%	5

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM							
DEVELOPMENT OF GASB NOS. 74 AND 75 SINGLE EQUIVALENT DISCOUNT RATE, (\$ IN 000'S)							
BARGAINING UNIT NUMBER 21							
EDUCATIONAL CONSULTANT AND LIBRARY							
20-Year GO Municipal Bond Rate at June 30, 2018		3.620%					
Long-Term Investment Return		7.000%					
Year Plan is Fully Funded		2049					
Single Equivalent Rate		3.872%					
Present Value of Benefits		\$ 305,169			\$ 305,169		
FYE	Net Employer Benefits	Cross-over Investment Return	Discount Factor	Discounted Benefit Payment	Single Equivalent Return	Discount Factor	Discounted Benefit Payment
2019	\$ 8,089	3.620%	0.98238	\$ 7,946	3.872%	0.98119	\$ 7,937
2020	8,535	3.620%	0.94806	8,091	3.872%	0.94461	8,062
2021	9,291	3.620%	0.91494	8,500	3.872%	0.90940	8,449
2022	10,114	3.620%	0.88297	8,930	3.872%	0.87551	8,855
2023	10,873	3.620%	0.85213	9,265	3.872%	0.84287	9,164
2024	11,604	3.620%	0.82236	9,543	3.872%	0.81146	9,416
2025	12,255	3.620%	0.79363	9,726	3.872%	0.78121	9,574
2026	12,890	3.620%	0.76590	9,873	3.872%	0.75209	9,695
2027	13,458	3.620%	0.73914	9,948	3.872%	0.72406	9,745
2028	13,899	3.620%	0.71332	9,914	3.872%	0.69707	9,689
2029	14,393	3.620%	0.68840	9,908	3.872%	0.67109	9,659
2030	14,879	3.620%	0.66435	9,885	3.872%	0.64607	9,613
2031	15,269	3.620%	0.64114	9,789	3.872%	0.62199	9,497
2032	15,680	3.620%	0.61874	9,702	3.872%	0.59881	9,389
2033	16,094	3.620%	0.59713	9,610	3.872%	0.57649	9,278
2034	16,393	3.620%	0.57627	9,447	3.872%	0.55500	9,098
2035	16,729	3.620%	0.55614	9,304	3.872%	0.53431	8,939
2036	17,040	3.620%	0.53671	9,145	3.872%	0.51440	8,765
2037	17,244	3.620%	0.51796	8,932	3.872%	0.49522	8,540
2038	17,430	3.620%	0.49986	8,712	3.872%	0.47676	8,310
2039	17,593	3.620%	0.48240	8,487	3.872%	0.45899	8,075
2040	17,655	3.620%	0.46555	8,219	3.872%	0.44189	7,802
2041	17,663	3.620%	0.44928	7,936	3.872%	0.42541	7,514
2042	17,615	3.620%	0.43359	7,638	3.872%	0.40956	7,214
2043	17,457	3.620%	0.41844	7,305	3.872%	0.39429	6,883
2044	17,179	3.620%	0.40382	6,937	3.872%	0.37960	6,521
2045	16,852	3.620%	0.38971	6,567	3.872%	0.36545	6,159
2046	16,512	3.620%	0.37610	6,210	3.872%	0.35182	5,809
2047	16,078	3.620%	0.36296	5,836	3.872%	0.33871	5,446
2048	15,632	3.620%	0.35028	5,476	3.872%	0.32609	5,097
2049	15,217	3.620%	0.33804	5,144	3.872%	0.31393	4,777
2050	14,753	7.000%	0.31593	4,661	3.872%	0.30223	4,459
2051	14,258	7.000%	0.29526	4,210	3.872%	0.29096	4,149
2052	13,804	7.000%	0.27594	3,809	3.872%	0.28012	3,867
2053	13,336	7.000%	0.25789	3,439	3.872%	0.26968	3,596
2054	12,846	7.000%	0.24102	3,096	3.872%	0.25963	3,335
2055	12,389	7.000%	0.22525	2,791	3.872%	0.24995	3,097
2065	7,862	7.000%	0.11451	900	3.872%	0.17095	1,344
2075	3,239	7.000%	0.05821	189	3.872%	0.11692	379
2085	522	7.000%	0.02959	15	3.872%	0.07997	42
2095	18	7.000%	0.01504	-	3.872%	0.05470	1
2105	-	7.000%	0.00765	-	3.872%	0.03741	-
2115	-	7.000%	0.00389	-	3.872%	0.02559	-

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER BARGAINING UNIT NUMBER 21 EDUCATIONAL CONSULTANT AND LIBRARY		
Fiscal Year Ending	June 30, 2017	June 30, 2018
Total OPEB Liability		
Service Cost	\$ 8,110	\$ 7,080
Interest on Total OPEB Liability	9,169	10,322
Changes of Benefit Terms	-	-
Difference between Expected and Actual Experience	-	(24,273)
Changes of Assumptions	(25,848)	(8,261)
Benefit Payments	(7,779)	(8,302)
Net Change in Total OPEB Liability	\$ (16,348)	\$ (23,434)
Total OPEB Liability - Beginning	\$ 283,438	\$ 267,090
Total OPEB Liability - Ending (a)	\$ 267,090	\$ 243,656
Plan Fiduciary Net Position		
Employer PayGO Contributions	\$ 7,779	\$ 8,302
Employer Pre Funding Contributions	-	-
Active Member Contributions	-	-
Net Investment Income	-	-
Benefit Payments	(7,779)	(8,302)
Administrative Expense	-	-
Other	-	-
Net Change in Plan Fiduciary Net Position	\$ -	\$ -
Plan Fiduciary Net Position - Beginning	\$ -	\$ -
Plan Fiduciary Net Position - Ending (b)	\$ -	\$ -
Net OPEB Liability - Ending (a) - (b)	\$ 267,090	\$ 243,656
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	0.000%	0.000%
Actuarially Determined Contribution (ADC)	\$ 12,444	\$ 12,817
Employer Contribution	\$ 7,779	\$ 8,302
Percentage of ADC made by Employer	63%	65%
Contribution Excess/(Shortfall)	\$ (4,665)	\$ (4,515)
Expected Return on Assets	\$ -	\$ -
Investment (Gain)/Loss	\$ -	\$ -
Average Expected Remaining Service	4.204481	4.259836
Blended Discount Rate Beginning of Year	3.187%	3.822%
Blended Discount Rate End of Year	3.822%	3.872%
Long-term Expected Return on Assets	7.280%	7.000%

Individual Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) BARGAINING UNIT NUMBER 21 EDUCATIONAL CONSULTANT AND LIBRARY		
Measured for the Plan's Fiscal Year Ending	June 30, 2017	June 30, 2018
Applicable for the Sponsor's Fiscal Year Ending	June 30, 2018	June 30, 2019
OPEB Expense		
Service Cost	\$ 8,110	\$ 7,080
Interest on the Total OPEB Liability	9,169	10,322
Current-Period Benefit Changes	-	-
Active Member Contributions	-	-
Projected Earnings on Plan Investments	-	-
Operating Expenses	-	-
Other Changes in Plan Fiduciary Net Position	-	-
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(5,698)
Recognition of Outflow/(Inflow) due to Assumption Changes	(6,148)	(8,087)
Recognition of Outflow/(Inflow) due to Investment Experience	-	-
Net OPEB Expense	\$ 11,131	\$ 3,617
Reconciliation of Net OPEB Liability		
Net OPEB Liability beginning of year	\$ 283,438	\$ 267,090
OPEB Expense	11,131	3,617
Employer Contributions	(7,779)	(8,302)
Change in Outflow/(Inflow) due to Non-investment Experience	-	(18,575)
Change in Outflow/(Inflow) due to Assumption Changes	(19,700)	(174)
Change in Outflow/(Inflow) due to Investment Experience	-	-
Net OPEB Liability End of year	\$ 267,090	\$ 243,656
Deferred (Inflows)		
Non-investment Experience	\$ -	\$ (18,575)
Assumption Changes	\$ (19,700)	\$ (19,874)
Investment Experience	\$ -	\$ -
Deferred Outflows		
Non-investment Experience	\$ -	\$ -
Assumption Changes	\$ -	\$ -
Investment Experience	\$ -	\$ -
Net OPEB Liability Sensitivity		
Baseline Discount Rate	3.822%	3.872%
Baseline Discount Rate and 4.5% Ultimate Trend	\$ 267,090	\$ 243,656
Increase Discount Rate by One Percentage Point	\$ 232,677	\$ 213,008
Decrease Discount Rate by One Percentage Point	\$ 309,455	\$ 281,271
Increase Trend Rate by One Percentage Point	\$ 311,081	\$ 275,693
Decrease Trend Rate by One Percentage Point	\$ 231,615	\$ 217,667

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES DEFERRED INFLOWS AND OUTFLOWS BARGAINING UNIT NUMBER 21 EDUCATIONAL CONSULTANT AND LIBRARY									
Valuation Date		6/30/2018							
Measurement Date		6/30/2018							
	Non-Investment Experience			Assumption Changes			Investment Experience		
	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization
Plan Year Beginning									
7/1/2016	\$ -	4.204481	\$ -	\$ (25,848)	4.204481	\$ (6,148)	\$ -	\$ 5.000000	\$ -
7/1/2017	\$ (24,273)	4.259836	\$ (5,698)	\$ (8,261)	4.259836	\$ (1,939)	\$ -	5.000000	\$ -
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Current Plan Year End	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2018	\$ -	\$ (5,698)	\$ (5,698)	\$ -	\$ (8,087)	\$ (8,087)	\$ -	\$ -	\$ -
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Future Plan Years Ending									
6/30/2019	\$ -	\$ (5,698)	\$ (5,698)	\$ -	\$ (8,087)	\$ (8,087)	\$ -	\$ -	\$ -
6/30/2020	\$ -	\$ (5,698)	\$ (5,698)	\$ -	\$ (8,087)	\$ (8,087)	\$ -	\$ -	\$ -
6/30/2021	\$ -	\$ (5,698)	\$ (5,698)	\$ -	\$ (3,195)	\$ (3,195)	\$ -	\$ -	\$ -
6/30/2022	\$ -	\$ (1,481)	\$ (1,481)	\$ -	\$ (505)	\$ (505)	\$ -	\$ -	\$ -
6/30/2023	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2024	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2025	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ (18,575)	\$ (18,575)	\$ -	\$ (19,874)	\$ (19,874)	\$ -	\$ -	\$ -
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2018			\$ (18,575)			\$ (174)			\$ -

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 CALIFORNIA STATE UNIVERSITY		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	48,011	47,995
Retired Participants ^a	<u>30,034</u>	<u>30,757</u>
Total Participants	78,045	78,752
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 5,965,480	\$ 5,772,262
Retired Participants	<u>4,808,860</u>	<u>4,906,913</u>
Total Participants	\$ 10,774,340	\$ 10,679,175
Actuarial Accrued Liability		
Active Participants	\$ 3,549,332	\$ 3,380,581
Retired Participants	<u>4,808,860</u>	<u>4,906,913</u>
Total Participants	\$ 8,358,192	\$ 8,287,494
Actuarial Value of Assets	\$ -	\$ -
Unfunded Actuarial Accrued Liability	\$ 8,358,192	\$ 8,287,494
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 280,812	\$ 266,569
Administrative Expenses	874	906
Amortization of UAAL	<u>472,864</u>	<u>476,173</u>
Total ADC	\$ 754,550	\$ 743,648
Estimated Member Contributions	-	-
Net Employer ADC	\$ 754,550	\$ 743,648
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 235,436	\$ 236,415
Part B Reimbursement	48,325	58,584
Dental Claims	<u>18,157</u>	<u>16,937</u>
Total	\$ 301,918	\$ 311,936
Employer Implicit Costs	<u>47,569</u>	<u>50,324</u>
Total Employer Costs	\$ 349,487	\$ 362,260
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 5,197	\$ 11,208
Dental Claims	-	-
Total	\$ 5,197	\$ 11,208
Total Claims Costs	\$ 354,684	\$ 373,468

^aRetired participants with dental only coverage, 1,588 as of July 1, 2017, and 1,607 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING PROJECTIONS BASED ON JULY 1, 2018, ACTUARIAL VALUATION (\$ IN 000'S) CALIFORNIA STATE UNIVERSITY									
Fiscal Year Beginning		7/1/2018							
Long-term Asset Return		7.000%							
Discount Rate		7.000%							
Year Plan is Fully Funded		N/A							
FYE	Assets (boy)	Disbursements/ Benefits	Administrative Expenses	Pre-Fund Contribution	Investment Income	Assets (eoy)	Accrued Liability (eoy)	Funded Ratio	Normal Cost
2018	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	8,287,494	0.0%	\$ 266,569
2019	-	-	-	-	-	-	8,777,914	0.0%	255,419
2020	-	-	-	-	-	-	9,256,888	0.0%	246,186
2021	-	-	-	-	-	-	9,718,271	0.0%	237,092
2022	-	-	-	-	-	-	10,160,505	0.0%	227,749
2023	-	-	-	-	-	-	10,581,834	0.0%	218,376
2024	-	-	-	-	-	-	10,981,359	0.0%	209,191
2025	-	-	-	-	-	-	11,359,249	0.0%	200,125
2026	-	-	-	-	-	-	11,716,991	0.0%	191,216
2027	-	-	-	-	-	-	12,056,850	0.0%	182,422
2028	-	-	-	-	-	-	12,379,432	0.0%	173,710
2029	-	-	-	-	-	-	12,683,172	0.0%	165,203
2030	-	-	-	-	-	-	12,966,679	0.0%	156,925
2031	-	-	-	-	-	-	13,228,694	0.0%	148,627
2032	-	-	-	-	-	-	13,467,346	0.0%	140,273
2033	-	-	-	-	-	-	13,680,903	0.0%	131,977
2034	-	-	-	-	-	-	13,868,733	0.0%	123,770
2035	-	-	-	-	-	-	14,030,330	0.0%	115,592
2036	-	-	-	-	-	-	14,164,906	0.0%	107,478
2037	-	-	-	-	-	-	14,271,283	0.0%	99,515
2038	-	-	-	-	-	-	14,348,391	0.0%	91,753
2039	-	-	-	-	-	-	14,395,596	0.0%	84,202
2040	-	-	-	-	-	-	14,412,335	0.0%	76,828
2041	-	-	-	-	-	-	14,398,268	0.0%	69,617
2042	-	-	-	-	-	-	14,353,207	0.0%	62,545
2043	-	-	-	-	-	-	14,276,661	0.0%	55,621
2044	-	-	-	-	-	-	14,168,362	0.0%	48,890
2045	-	-	-	-	-	-	14,028,600	0.0%	42,413
2046	-	-	-	-	-	-	13,857,940	0.0%	36,264
2047	-	-	-	-	-	-	13,657,338	0.0%	30,504
2048	-	-	-	-	-	-	13,427,450	0.0%	25,219
2049	-	-	-	-	-	-	13,170,002	0.0%	20,477
2050	-	-	-	-	-	-	12,886,752	0.0%	16,304
2051	-	-	-	-	-	-	12,580,071	0.0%	12,707
2052	-	-	-	-	-	-	12,252,705	0.0%	9,673
2053	-	-	-	-	-	-	11,906,664	0.0%	7,183
2054	-	-	-	-	-	-	11,544,829	0.0%	5,208
2055	-	-	-	-	-	-	11,170,448	0.0%	3,697
2056	-	-	-	-	-	-	10,786,118	0.0%	2,579

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM DEVELOPMENT OF GASB NOS. 74 AND 75 SINGLE EQUIVALENT DISCOUNT RATE, (\$ IN 000'S) CALIFORNIA STATE UNIVERSITY

20-Year GO Municipal Bond Rate at June 30, 2018 3.620%
Long-Term Investment Return 7.000%
Year Plan is Fully Funded N/A
Single Equivalent Rate 3.620%

Present Value of Benefits \$ 20,476,928 \$ 20,476,928

FYE	Net Employer Benefits	Cross-over Investment Return	Discount Factor	Discounted Benefit Payment	Single Equivalent Return	Discount Factor	Discounted Benefit Payment
2019	\$ 362,260	3.620%	0.98238	\$ 355,876	3.620%	0.98238	\$ 355,876
2020	394,978	3.620%	0.94806	374,462	3.620%	0.94806	374,462
2021	434,831	3.620%	0.91494	397,843	3.620%	0.91494	397,843
2022	475,160	3.620%	0.88297	419,554	3.620%	0.88297	419,554
2023	515,623	3.620%	0.85213	439,375	3.620%	0.85213	439,375
2024	555,511	3.620%	0.82236	456,829	3.620%	0.82236	456,829
2025	593,959	3.620%	0.79363	471,382	3.620%	0.79363	471,382
2026	629,629	3.620%	0.76590	482,234	3.620%	0.76590	482,234
2027	661,911	3.620%	0.73914	489,248	3.620%	0.73914	489,248
2028	692,512	3.620%	0.71332	493,985	3.620%	0.71332	493,985
2029	723,545	3.620%	0.68840	498,090	3.620%	0.68840	498,090
2030	754,865	3.620%	0.66435	501,497	3.620%	0.66435	501,497
2031	786,265	3.620%	0.64114	504,109	3.620%	0.64114	504,109
2032	817,999	3.620%	0.61874	506,132	3.620%	0.61874	506,132
2033	849,777	3.620%	0.59713	507,426	3.620%	0.59713	507,426
2034	880,518	3.620%	0.57627	507,414	3.620%	0.57627	507,414
2035	910,104	3.620%	0.55614	506,141	3.620%	0.55614	506,141
2036	938,706	3.620%	0.53671	503,810	3.620%	0.53671	503,810
2037	966,693	3.620%	0.51796	500,705	3.620%	0.51796	500,705
2038	993,955	3.620%	0.49986	496,840	3.620%	0.49986	496,840
2039	1,020,059	3.620%	0.48240	492,076	3.620%	0.48240	492,076
2040	1,044,903	3.620%	0.46555	486,451	3.620%	0.46555	486,451
2041	1,068,201	3.620%	0.44928	479,924	3.620%	0.44928	479,924
2042	1,089,758	3.620%	0.43359	472,504	3.620%	0.43359	472,504
2043	1,109,845	3.620%	0.41844	464,402	3.620%	0.41844	464,402
2044	1,128,212	3.620%	0.40382	455,595	3.620%	0.40382	455,595
2045	1,144,344	3.620%	0.38971	445,966	3.620%	0.38971	445,966
2046	1,158,069	3.620%	0.37610	435,548	3.620%	0.37610	435,548
2047	1,169,118	3.620%	0.36296	424,342	3.620%	0.36296	424,342
2048	1,177,905	3.620%	0.35028	412,596	3.620%	0.35028	412,596
2049	1,183,534	3.620%	0.33804	400,084	3.620%	0.33804	400,084
2050	1,186,162	3.620%	0.32623	386,965	3.620%	0.32623	386,965
2051	1,185,338	3.620%	0.31484	373,186	3.620%	0.31484	373,186
2052	1,180,871	3.620%	0.30384	358,792	3.620%	0.30384	358,792
2053	1,173,637	3.620%	0.29322	344,136	3.620%	0.29322	344,136
2054	1,162,924	3.620%	0.28298	329,082	3.620%	0.28298	329,082
2055	1,148,528	3.620%	0.27309	313,654	3.620%	0.27309	313,654
2065	930,627	3.620%	0.19137	178,094	3.620%	0.19137	178,094
2075	563,895	3.620%	0.13410	75,620	3.620%	0.13410	75,620
2085	174,483	3.620%	0.09397	16,397	3.620%	0.09397	16,397
2095	15,119	3.620%	0.06585	996	3.620%	0.06585	996
2105	156	3.620%	0.04615	7	3.620%	0.04615	7
2115	1	3.620%	0.03234	-	3.620%	0.03234	-

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER CALIFORNIA STATE UNIVERSITY		
Fiscal Year Ending	June 30, 2017	June 30, 2018
Total OPEB Liability		
Service Cost	\$ 795,696	\$ 680,934
Interest on Total OPEB Liability	436,431	513,512
Changes of Benefit Terms	-	-
Difference between Expected and Actual Experience	-	(1,111,239)
Changes of Assumptions	(1,663,194)	(519,714)
Benefit Payments	(333,828)	(353,022)
Net Change in Total OPEB Liability	\$ (764,895)	\$ (789,529)
Total OPEB Liability - Beginning	\$ 14,683,420	\$ 13,918,525
Total OPEB Liability - Ending (a)	\$ 13,918,525	\$ 13,128,996
Plan Fiduciary Net Position		
Employer PayGO Contributions	\$ 333,828	\$ 353,022
Employer Pre Funding Contributions	-	-
Active Member Contributions	-	-
Net Investment Income	-	-
Benefit Payments	(333,828)	(353,022)
Administrative Expense	-	-
Other	-	-
Net Change in Plan Fiduciary Net Position	\$ -	\$ -
Plan Fiduciary Net Position - Beginning	\$ -	\$ -
Plan Fiduciary Net Position - Ending (b)	\$ -	\$ -
Net OPEB Liability - Ending (a) - (b)	\$ 13,918,525	\$ 13,128,996
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	0.000%	0.000%
Actuarially Determined Contribution (ADC)	\$ 732,573	\$ 754,550
Employer Contribution	\$ 333,828	\$ 353,022
Percentage of ADC made by Employer	46%	47%
Contribution Excess/(Shortfall)	\$ (398,745)	\$ (401,528)
Expected Return on Assets	\$ -	\$ -
Investment (Gain)/Loss	\$ -	\$ -
Average Expected Remaining Service	6.864209	7.170774
Blended Discount Rate Beginning of Year	2.850%	3.560%
Blended Discount Rate End of Year	3.560%	3.620%
Long-term Expected Return on Assets	7.280%	7.000%

Individual Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) CALIFORNIA STATE UNIVERSITY		
Measured for the Plan's Fiscal Year Ending Applicable for the Sponsor's Fiscal Year Ending	June 30, 2017 June 30, 2018	June 30, 2018 June 30, 2019
OPEB Expense		
Service Cost	\$ 795,696	\$ 680,934
Interest on the Total OPEB Liability	436,431	513,512
Current-Period Benefit Changes	-	-
Active Member Contributions	-	-
Projected Earnings on Plan Investments	-	-
Operating Expenses	-	-
Other Changes in Plan Fiduciary Net Position	-	-
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(154,968)
Recognition of Outflow/(Inflow) due to Assumption Changes	(242,299)	(314,776)
Recognition of Outflow/(Inflow) due to Investment Experience	-	-
Net OPEB Expense	\$ 989,828	\$ 724,702
Reconciliation of Net OPEB Liability		
Net OPEB Liability beginning of year	\$ 14,683,420	\$ 13,918,525
OPEB Expense	989,828	724,702
Employer Contributions	(333,828)	(353,022)
Change in Outflow/(Inflow) due to Non-investment Experience	-	(956,271)
Change in Outflow/(Inflow) due to Assumption Changes	(1,420,895)	(204,938)
Change in Outflow/(Inflow) due to Investment Experience	-	-
Net OPEB Liability End of year	\$ 13,918,525	\$ 13,128,996
Deferred (Inflows)		
Non-investment Experience	\$ -	\$ (956,271)
Assumption Changes	\$ (1,420,895)	\$ (1,625,833)
Investment Experience	\$ -	\$ -
Deferred Outflows		
Non-investment Experience	\$ -	\$ -
Assumption Changes	\$ -	\$ -
Investment Experience	\$ -	\$ -
Net OPEB Liability Sensitivity		
Baseline Discount Rate	3.560%	3.620%
Baseline Discount Rate and 4.5% Ultimate Trend	\$ 13,918,525	\$ 13,128,996
Increase Discount Rate by One Percentage Point	\$ 11,979,359	\$ 11,329,989
Decrease Discount Rate by One Percentage Point	\$ 16,342,689	\$ 15,372,355
Increase Trend Rate by One Percentage Point	\$ 16,591,308	\$ 15,171,779
Decrease Trend Rate by One Percentage Point	\$ 11,827,140	\$ 11,525,389

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES DEFERRED INFLOWS AND OUTFLOWS CALIFORNIA STATE UNIVERSITY									
Valuation Date		6/30/2018							
Measurement Date		6/30/2018							
	Non-Investment Experience			Assumption Changes			Investment Experience		
	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization
Plan Year Beginning									
7/1/2016	\$ -	6.864209	\$ -	\$ (1,663,194)	6.864209	\$ (242,299)	\$ -	\$ 5.000000	\$ -
7/1/2017	\$ (1,111,239)	7.170774	\$ (154,968)	\$ (519,714)	7.170774	\$ (72,477)	\$ -	5.000000	\$ -
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Current Plan Year End	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2018	\$ -	\$ (154,968)	\$ (154,968)	\$ -	\$ (314,776)	\$ (314,776)	\$ -	\$ -	\$ -
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Future Plan Years Ending									
6/30/2019	\$ -	\$ (154,968)	\$ (154,968)	\$ -	\$ (314,776)	\$ (314,776)	\$ -	\$ -	\$ -
6/30/2020	\$ -	\$ (154,968)	\$ (154,968)	\$ -	\$ (314,776)	\$ (314,776)	\$ -	\$ -	\$ -
6/30/2021	\$ -	\$ (154,968)	\$ (154,968)	\$ -	\$ (314,776)	\$ (314,776)	\$ -	\$ -	\$ -
6/30/2022	\$ -	\$ (154,968)	\$ (154,968)	\$ -	\$ (314,776)	\$ (314,776)	\$ -	\$ -	\$ -
6/30/2023	\$ -	\$ (154,968)	\$ (154,968)	\$ -	\$ (281,877)	\$ (281,877)	\$ -	\$ -	\$ -
6/30/2024	\$ -	\$ (154,968)	\$ (154,968)	\$ -	\$ (72,477)	\$ (72,477)	\$ -	\$ -	\$ -
6/30/2025	\$ -	\$ (26,463)	\$ (26,463)	\$ -	\$ (12,375)	\$ (12,375)	\$ -	\$ -	\$ -
6/30/2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ (956,271)	\$ (956,271)	\$ -	\$ (1,625,833)	\$ (1,625,833)	\$ -	\$ -	\$ -
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2018			\$ (956,271)			\$ (204,938)			\$ -

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 JUDICIAL BRANCH		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	1,625	1,609
Retired Participants ^a	<u>858</u>	<u>937</u>
Total Participants	2,483	2,546
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 223,083	\$ 211,714
Retired Participants	<u>158,090</u>	<u>167,801</u>
Total Participants	\$ 381,173	\$ 379,515
Actuarial Accrued Liability		
Active Participants	\$ 152,154	\$ 141,167
Retired Participants	<u>158,090</u>	<u>167,801</u>
Total Participants	\$ 310,244	\$ 308,968
Actuarial Value of Assets	\$ 3,383	\$ 11,178
Unfunded Actuarial Accrued Liability	\$ 306,861	\$ 297,790
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 8,601	\$ 8,042
Administrative Expenses	28	29
Amortization of UAAL	<u>17,361</u>	<u>17,110</u>
Total ADC	\$ 25,990	\$ 25,181
Estimated Member Contributions	<u>(2,876)</u>	<u>(4,035)</u>
Net Employer ADC	\$ 23,114	\$ 21,146
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 7,523	\$ 7,715
Part B Reimbursement	1,302	1,646
Dental Claims	<u>572</u>	<u>607</u>
Total	\$ 9,397	\$ 9,968
Employer Implicit Costs	<u>1,428</u>	<u>1,446</u>
Total Employer Costs	\$ 10,825	\$ 11,414
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 258	\$ 656
Dental Claims	<u>181</u>	<u>193</u>
Total	\$ 439	\$ 849
Total Claims Costs	\$ 11,264	\$ 12,263

^aRetired participants with dental only coverage, 43 as of July 1, 2017, and 42 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING PROJECTIONS BASED ON JULY 1, 2018, ACTUARIAL VALUATION (\$ IN 000'S) JUDICIAL BRANCH									
Fiscal Year Beginning 7/1/2018 Long-term Asset Return 7.000% Discount Rate 7.000% Year Plan is Fully Funded 2045									
FYE	Assets (boy)	Disbursements/ Benefits	Administrative Expenses	Pre-Fund Contribution	Investment Income	Assets (eoy)	Accrued Liability (eoy)	Funded Ratio	Normal Cost
2018	\$ 3,383	\$ -	\$ 4	\$ 7,378	\$ 421	\$ 11,178	\$ 308,968	3.6%	\$ 8,042
2019	11,178	-	29	8,071	1,059	20,279	327,388	6.2%	7,726
2020	20,279	-	32	7,758	1,685	29,690	345,448	8.6%	7,438
2021	29,690	-	36	7,473	2,334	39,461	362,865	10.9%	7,151
2022	39,461	-	40	7,191	3,008	49,620	379,552	13.1%	6,857
2023	49,620	-	44	6,900	3,710	60,186	395,428	15.2%	6,567
2024	60,186	-	48	6,614	4,439	71,191	410,430	17.3%	6,281
2025	71,191	-	51	6,333	5,200	82,673	424,621	19.5%	5,998
2026	82,673	-	55	6,054	5,994	94,666	437,903	21.6%	5,714
2027	94,666	-	59	5,773	6,823	107,203	450,335	23.8%	5,423
2028	107,203	-	62	5,485	7,691	120,317	461,986	26.0%	5,137
2029	120,317	-	66	5,202	8,599	134,052	472,684	28.4%	4,857
2030	134,052	-	69	4,926	9,551	148,460	482,282	30.8%	4,577
2031	148,460	-	73	4,650	10,550	163,587	490,726	33.3%	4,299
2032	163,587	-	77	4,375	11,599	179,484	497,971	36.0%	4,021
2033	179,484	-	80	4,101	12,703	196,208	504,012	38.9%	3,742
2034	196,208	-	83	3,826	13,864	213,815	508,789	42.0%	3,471
2035	213,815	-	87	3,558	15,087	232,373	512,154	45.4%	3,209
2036	232,373	-	90	3,299	16,377	251,959	514,210	49.0%	2,953
2037	251,959	-	93	3,045	17,739	272,650	515,010	52.9%	2,699
2038	272,650	-	96	2,795	19,179	294,528	514,391	57.3%	2,450
2039	294,528	-	98	2,548	20,701	317,679	512,331	62.0%	2,212
2040	317,679	-	101	2,313	22,314	342,205	508,880	67.2%	1,985
2041	342,205	-	103	2,087	24,023	368,212	504,072	73.0%	1,763
2042	368,212	-	105	1,868	25,836	395,811	497,987	79.5%	1,548
2043	395,811	-	106	1,654	27,760	425,119	490,628	86.6%	1,347
2044	425,119	-	107	1,454	29,805	456,271	482,050	94.7%	1,159
2045	456,271	11,478	108	1,267	31,584	477,536	472,392	101.1%	985
2046	477,536	43,283	108	-	31,935	466,080	461,735	100.9%	827
2047	466,080	43,257	108	-	31,134	453,849	450,192	100.8%	685
2048	453,849	43,039	108	-	30,285	440,987	437,914	100.7%	558
2049	440,987	42,827	107	-	29,392	427,445	424,861	100.6%	447
2050	427,445	42,480	106	-	28,456	413,315	411,135	100.5%	352
2051	413,315	41,926	105	-	27,486	398,770	396,919	100.5%	270
2052	398,770	41,313	103	-	26,489	383,843	382,255	100.4%	203
2053	383,843	40,615	102	-	25,468	368,594	367,216	100.4%	150
2054	368,594	39,784	99	-	24,430	353,141	351,926	100.3%	109
2055	353,141	38,900	97	-	23,378	337,522	336,437	100.3%	77
2056	337,522	37,970	95	-	22,317	321,774	320,792	100.3%	54

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM DEVELOPMENT OF GASB NOS. 74 AND 75 SINGLE EQUIVALENT DISCOUNT RATE, (\$ IN 000'S) JUDICIAL BRANCH

20-Year GO Municipal Bond Rate at June 30, 2018 3.620%
Long-Term Investment Return 7.000%
Year Plan is Fully Funded 2045
Single Equivalent Rate 4.118%

Present Value of Benefits		\$ 644,143			\$ 644,143		
FYE	Net Employer Benefits	Cross-over Investment Return	Discount Factor	Discounted Benefit Payment	Single Equivalent Return	Discount Factor	Discounted Benefit Payment
2019	\$ 11,414	3.620%	0.98238	\$ 11,213	4.118%	0.98002	\$ 11,186
2020	12,681	3.620%	0.94806	12,022	4.118%	0.94126	11,936
2021	14,227	3.620%	0.91494	13,017	4.118%	0.90403	12,862
2022	15,814	3.620%	0.88297	13,963	4.118%	0.86827	13,731
2023	17,422	3.620%	0.85213	14,846	4.118%	0.83393	14,529
2024	19,041	3.620%	0.82236	15,659	4.118%	0.80094	15,251
2025	20,545	3.620%	0.79363	16,305	4.118%	0.76926	15,805
2026	22,092	3.620%	0.76590	16,920	4.118%	0.73884	16,322
2027	23,518	3.620%	0.73914	17,384	4.118%	0.70961	16,689
2028	24,813	3.620%	0.71332	17,699	4.118%	0.68155	16,911
2029	26,226	3.620%	0.68840	18,054	4.118%	0.65459	17,167
2030	27,725	3.620%	0.66435	18,419	4.118%	0.62870	17,431
2031	29,200	3.620%	0.64114	18,722	4.118%	0.60383	17,632
2032	30,642	3.620%	0.61874	18,960	4.118%	0.57995	17,771
2033	32,010	3.620%	0.59713	19,114	4.118%	0.55701	17,830
2034	33,352	3.620%	0.57627	19,220	4.118%	0.53498	17,842
2035	34,760	3.620%	0.55614	19,331	4.118%	0.51382	17,860
2036	35,982	3.620%	0.53671	19,312	4.118%	0.49349	17,757
2037	37,071	3.620%	0.51796	19,201	4.118%	0.47397	17,571
2038	38,234	3.620%	0.49986	19,112	4.118%	0.45523	17,405
2039	39,328	3.620%	0.48240	18,972	4.118%	0.43722	17,195
2040	40,287	3.620%	0.46555	18,755	4.118%	0.41993	16,918
2041	41,130	3.620%	0.44928	18,479	4.118%	0.40332	16,589
2042	41,811	3.620%	0.43359	18,129	4.118%	0.38736	16,196
2043	42,409	3.620%	0.41844	17,745	4.118%	0.37204	15,778
2044	42,882	3.620%	0.40382	17,317	4.118%	0.35733	15,323
2045	43,151	3.620%	0.38971	16,817	4.118%	0.34319	14,809
2046	43,283	7.000%	0.36422	15,764	4.118%	0.32962	14,267
2047	43,257	7.000%	0.34039	14,724	4.118%	0.31658	13,694
2048	43,039	7.000%	0.31812	13,692	4.118%	0.30406	13,087
2049	42,827	7.000%	0.29731	12,733	4.118%	0.29203	12,507
2050	42,480	7.000%	0.27786	11,803	4.118%	0.28048	11,915
2051	41,926	7.000%	0.25968	10,887	4.118%	0.26939	11,294
2052	41,313	7.000%	0.24269	10,027	4.118%	0.25873	10,689
2053	40,615	7.000%	0.22682	9,212	4.118%	0.24850	10,093
2054	39,784	7.000%	0.21198	8,433	4.118%	0.23867	9,495
2055	38,900	7.000%	0.19811	7,706	4.118%	0.22923	8,917
2065	27,458	7.000%	0.10071	2,765	4.118%	0.15311	4,204
2075	13,726	7.000%	0.05120	703	4.118%	0.10227	1,404
2085	3,412	7.000%	0.02603	89	4.118%	0.06831	233
2095	236	7.000%	0.01323	3	4.118%	0.04562	11
2105	1	7.000%	0.00673	-	4.118%	0.03047	-
2115	-	7.000%	0.00342	-	4.118%	0.02035	-

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER JUDICIAL BRANCH		
Fiscal Year Ending	June 30, 2017	June 30, 2018
Total OPEB Liability		
Service Cost	\$ 21,728	\$ 19,162
Interest on Total OPEB Liability	18,121	20,340
Changes of Benefit Terms	-	-
Difference between Expected and Actual Experience	-	(34,726)
Changes of Assumptions	(47,721)	(21,827)
Benefit Payments	(10,339)	(10,972)
Net Change in Total OPEB Liability	\$ (18,211)	\$ (28,023)
Total OPEB Liability - Beginning	\$ 507,578	\$ 489,367
Total OPEB Liability - Ending (a)	\$ 489,367	\$ 461,344
Plan Fiduciary Net Position		
Employer PayGO Contributions	\$ 10,339	\$ 10,972
Employer Pre Funding Contributions	1,612	3,689
Active Member Contributions	1,612	3,689
Net Investment Income	160	421
Benefit Payments	(10,339)	(10,972)
Administrative Expense	(1)	(4)
Other	-	-
Net Change in Plan Fiduciary Net Position	\$ 3,383	\$ 7,795
Plan Fiduciary Net Position - Beginning	\$ -	\$ 3,383
Plan Fiduciary Net Position - Ending (b)	\$ 3,383	\$ 11,178
Net OPEB Liability - Ending (a) - (b)	\$ 485,984	\$ 450,166
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	0.691%	2.423%
Actuarially Determined Contribution (ADC)	\$ 23,621	\$ 22,301
Employer Contribution	\$ 11,951	\$ 14,661
Percentage of ADC made by Employer	51%	66%
Contribution Excess/(Shortfall)	\$ (11,670)	\$ (7,640)
Expected Return on Assets	\$ 115	\$ 510
Investment (Gain)/Loss	\$ (45)	\$ 89
Average Expected Remaining Service	6.606982	6.745952
Blended Discount Rate Beginning of Year	3.457%	4.043%
Blended Discount Rate End of Year	4.043%	4.118%
Long-term Expected Return on Assets	7.280%	7.000%

Individual Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) JUDICIAL BRANCH		
Measured for the Plan's Fiscal Year Ending Applicable for the Sponsor's Fiscal Year Ending	June 30, 2017 June 30, 2018	June 30, 2018 June 30, 2019
OPEB Expense		
Service Cost	\$ 21,728	\$ 19,162
Interest on the Total OPEB Liability	18,121	20,340
Current-Period Benefit Changes	-	-
Active Member Contributions	(1,612)	(3,689)
Projected Earnings on Plan Investments	(115)	(510)
Operating Expenses	1	4
Other Changes in Plan Fiduciary Net Position	-	-
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(5,148)
Recognition of Outflow/(Inflow) due to Assumption Changes	(7,223)	(10,459)
Recognition of Outflow/(Inflow) due to Investment Experience	(9)	9
Net OPEB Expense	\$ 30,891	\$ 19,709
Reconciliation of Net OPEB Liability		
Net OPEB Liability beginning of year	\$ 507,578	\$ 485,984
OPEB Expense	30,891	19,709
Employer Contributions	(11,951)	(14,661)
Change in Outflow/(Inflow) due to Non-investment Experience	-	(29,578)
Change in Outflow/(Inflow) due to Assumption Changes	(40,498)	(11,368)
Change in Outflow/(Inflow) due to Investment Experience	(36)	80
Net OPEB Liability End of year	\$ 485,984	\$ 450,166
Deferred (Inflows)		
Non-investment Experience	\$ -	\$ (29,578)
Assumption Changes	\$ (40,498)	\$ (51,866)
Investment Experience	\$ (36)	\$ (27)
Deferred Outflows		
Non-investment Experience	\$ -	\$ -
Assumption Changes	\$ -	\$ -
Investment Experience	\$ -	\$ 71
Net OPEB Liability Sensitivity		
Baseline Discount Rate	4.043%	4.118%
Baseline Discount Rate and 4.5% Ultimate Trend	\$ 485,984	\$ 450,166
Increase Discount Rate by One Percentage Point	\$ 417,396	\$ 386,866
Decrease Discount Rate by One Percentage Point	\$ 571,406	\$ 528,735
Increase Trend Rate by One Percentage Point	\$ 579,023	\$ 520,246
Decrease Trend Rate by One Percentage Point	\$ 412,481	\$ 394,343

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM									
GASB NOS. 74 AND 75 DISCLOSURES									
DEFERRED INFLOWS AND OUTFLOWS									
JUDICIAL BRANCH									
Valuation Date	6/30/2018								
Measurement Date	6/30/2018								
Plan Year Beginning	Non-Investment Experience			Assumption Changes			Investment Experience		
	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization
7/1/2016	\$ -	6.606982	\$ -	\$ (47,721)	6.606982	\$ (7,223)	\$ (45)	\$ 5.000000	\$ (9)
7/1/2017	\$ (34,726)	6.745952	\$ (5,148)	\$ (21,827)	6.745952	\$ (3,236)	\$ 89	5.000000	\$ 18
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Current Plan Year End	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2018	\$ -	\$ (5,148)	\$ (5,148)	\$ -	\$ (10,459)	\$ (10,459)	\$ 18	\$ (9)	\$ 9
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Future Plan Years Ending									
6/30/2019	\$ -	\$ (5,148)	\$ (5,148)	\$ -	\$ (10,459)	\$ (10,459)	\$ 18	\$ (9)	\$ 9
6/30/2020	\$ -	\$ (5,148)	\$ (5,148)	\$ -	\$ (10,459)	\$ (10,459)	\$ 18	\$ (9)	\$ 9
6/30/2021	\$ -	\$ (5,148)	\$ (5,148)	\$ -	\$ (10,459)	\$ (10,459)	\$ 18	\$ (9)	\$ 9
6/30/2022	\$ -	\$ (5,148)	\$ (5,148)	\$ -	\$ (10,459)	\$ (10,459)	\$ 17	\$ -	\$ 17
6/30/2023	\$ -	\$ (5,148)	\$ (5,148)	\$ -	\$ (7,619)	\$ (7,619)	\$ -	\$ -	\$ -
6/30/2024	\$ -	\$ (3,838)	\$ (3,838)	\$ -	\$ (2,411)	\$ (2,411)	\$ -	\$ -	\$ -
6/30/2025	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ (29,578)	\$ (29,578)	\$ -	\$ (51,866)	\$ (51,866)	\$ 71	\$ (27)	\$ 44
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2018			\$ (29,578)			\$ (11,368)			\$ 80

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 EXEMPT/EXCLUDED/EXECUTIVE		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	6,865	6,643
Retired Participants ^a	<u>3,967</u>	<u>4,122</u>
Total Participants	10,832	10,765
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 748,681	\$ 742,274
Retired Participants	<u>709,135</u>	<u>718,880</u>
Total Participants	\$ 1,457,816	\$ 1,461,154
Actuarial Accrued Liability		
Active Participants	\$ 516,296	\$ 501,781
Retired Participants	<u>709,135</u>	<u>718,880</u>
Total Participants	\$ 1,225,431	\$ 1,220,661
Actuarial Value of Assets	\$ -	\$ -
Unfunded Actuarial Accrued Liability	\$ 1,225,431	\$ 1,220,661
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 26,557	\$ 25,785
Administrative Expenses	122	126
Amortization of UAAL	<u>69,329</u>	<u>70,135</u>
Total ADC	\$ 96,008	\$ 96,046
Estimated Member Contributions	-	-
Net Employer ADC	\$ 96,008	\$ 96,046
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 34,327	\$ 34,405
Part B Reimbursement	5,642	6,890
Dental Claims	<u>2,584</u>	<u>2,640</u>
Total	\$ 42,553	\$ 43,935
Employer Implicit Costs	<u>6,344</u>	<u>6,391</u>
Total Employer Costs	\$ 48,897	\$ 50,326
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 1,105	\$ 2,376
Dental Claims	<u>820</u>	<u>838</u>
Total	\$ 1,925	\$ 3,214
Total Claims Costs	\$ 50,822	\$ 53,540

^aRetired participants with dental only coverage, 260 as of July 1, 2017, and 274 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING PROJECTIONS BASED ON JULY 1, 2018, ACTUARIAL VALUATION (\$ IN 000'S) EXEMPT/EXCLUDED/EXECUTIVE									
Fiscal Year Beginning		7/1/2018							
Long-term Asset Return		7.000%							
Discount Rate		7.000%							
Year Plan is Fully Funded		N/A							
FYE	Assets (boy)	Disbursements/ Benefits	Administrative Expenses	Pre-Fund Contribution	Investment Income	Assets (eoy)	Accrued Liability (eoy)	Funded Ratio	Normal Cost
2018	\$ -	\$ -	\$ -	\$ -	\$ -	-	1,220,661	0.0%	\$ 25,785
2019	-	-	-	-	-	-	1,281,611	0.0%	24,884
2020	-	-	-	-	-	-	1,341,429	0.0%	24,082
2021	-	-	-	-	-	-	1,398,853	0.0%	23,285
2022	-	-	-	-	-	-	1,453,587	0.0%	22,480
2023	-	-	-	-	-	-	1,505,632	0.0%	21,664
2024	-	-	-	-	-	-	1,554,734	0.0%	20,831
2025	-	-	-	-	-	-	1,600,839	0.0%	19,992
2026	-	-	-	-	-	-	1,644,166	0.0%	19,164
2027	-	-	-	-	-	-	1,685,120	0.0%	18,360
2028	-	-	-	-	-	-	1,723,746	0.0%	17,569
2029	-	-	-	-	-	-	1,759,954	0.0%	16,781
2030	-	-	-	-	-	-	1,793,485	0.0%	16,012
2031	-	-	-	-	-	-	1,824,133	0.0%	15,253
2032	-	-	-	-	-	-	1,851,742	0.0%	14,491
2033	-	-	-	-	-	-	1,876,014	0.0%	13,726
2034	-	-	-	-	-	-	1,896,859	0.0%	12,971
2035	-	-	-	-	-	-	1,914,441	0.0%	12,225
2036	-	-	-	-	-	-	1,928,608	0.0%	11,477
2037	-	-	-	-	-	-	1,939,225	0.0%	10,724
2038	-	-	-	-	-	-	1,946,114	0.0%	9,977
2039	-	-	-	-	-	-	1,949,258	0.0%	9,238
2040	-	-	-	-	-	-	1,948,426	0.0%	8,500
2041	-	-	-	-	-	-	1,943,370	0.0%	7,774
2042	-	-	-	-	-	-	1,934,195	0.0%	7,064
2043	-	-	-	-	-	-	1,920,845	0.0%	6,368
2044	-	-	-	-	-	-	1,903,374	0.0%	5,695
2045	-	-	-	-	-	-	1,882,038	0.0%	5,050
2046	-	-	-	-	-	-	1,856,846	0.0%	4,442
2047	-	-	-	-	-	-	1,827,975	0.0%	3,874
2048	-	-	-	-	-	-	1,795,994	0.0%	3,344
2049	-	-	-	-	-	-	1,760,968	0.0%	2,853
2050	-	-	-	-	-	-	1,723,008	0.0%	2,400
2051	-	-	-	-	-	-	1,682,473	0.0%	1,988
2052	-	-	-	-	-	-	1,639,507	0.0%	1,618
2053	-	-	-	-	-	-	1,594,286	0.0%	1,290
2054	-	-	-	-	-	-	1,546,873	0.0%	1,008
2055	-	-	-	-	-	-	1,497,479	0.0%	770
2056	-	-	-	-	-	-	1,446,418	0.0%	573

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM DEVELOPMENT OF GASB NOS. 74 AND 75 SINGLE EQUIVALENT DISCOUNT RATE, (\$ IN 000'S) EXEMPT/EXCLUDED/EXECUTIVE

20-Year GO Municipal Bond Rate at June 30, 2018 3.620%
Long-Term Investment Return 7.000%
Year Plan is Fully Funded N/A
Single Equivalent Rate 3.620%

Present Value of Benefits \$ 2,790,356 \$ 2,790,356

FYE	Net Employer Benefits	Cross-over Investment Return	Discount Factor	Discounted Benefit Payment	Single Equivalent Return	Discount Factor	Discounted Benefit Payment
2019	\$ 50,326	3.620%	0.98238	\$ 49,439	3.620%	0.98238	\$ 49,439
2020	54,613	3.620%	0.94806	51,776	3.620%	0.94806	51,776
2021	60,145	3.620%	0.91494	55,029	3.620%	0.91494	55,029
2022	65,805	3.620%	0.88297	58,104	3.620%	0.88297	58,104
2023	71,274	3.620%	0.85213	60,735	3.620%	0.85213	60,735
2024	76,797	3.620%	0.82236	63,155	3.620%	0.82236	63,155
2025	82,154	3.620%	0.79363	65,200	3.620%	0.79363	65,200
2026	87,094	3.620%	0.76590	66,705	3.620%	0.76590	66,705
2027	91,459	3.620%	0.73914	67,601	3.620%	0.73914	67,601
2028	95,652	3.620%	0.71332	68,231	3.620%	0.71332	68,231
2029	99,783	3.620%	0.68840	68,691	3.620%	0.68840	68,691
2030	104,008	3.620%	0.66435	69,098	3.620%	0.66435	69,098
2031	108,268	3.620%	0.64114	69,415	3.620%	0.64114	69,415
2032	112,496	3.620%	0.61874	69,607	3.620%	0.61874	69,607
2033	116,801	3.620%	0.59713	69,745	3.620%	0.59713	69,745
2034	120,965	3.620%	0.57627	69,709	3.620%	0.57627	69,709
2035	124,750	3.620%	0.55614	69,378	3.620%	0.55614	69,378
2036	128,470	3.620%	0.53671	68,951	3.620%	0.53671	68,951
2037	132,087	3.620%	0.51796	68,415	3.620%	0.51796	68,415
2038	135,632	3.620%	0.49986	67,797	3.620%	0.49986	67,797
2039	138,947	3.620%	0.48240	67,028	3.620%	0.48240	67,028
2040	142,240	3.620%	0.46555	66,219	3.620%	0.46555	66,219
2041	145,505	3.620%	0.44928	65,373	3.620%	0.44928	65,373
2042	148,395	3.620%	0.43359	64,342	3.620%	0.43359	64,342
2043	151,076	3.620%	0.41844	63,216	3.620%	0.41844	63,216
2044	153,439	3.620%	0.40382	61,962	3.620%	0.40382	61,962
2045	155,298	3.620%	0.38971	60,522	3.620%	0.38971	60,522
2046	156,916	3.620%	0.37610	59,016	3.620%	0.37610	59,016
2047	158,142	3.620%	0.36296	57,399	3.620%	0.36296	57,399
2048	158,608	3.620%	0.35028	55,557	3.620%	0.35028	55,557
2049	158,841	3.620%	0.33804	53,695	3.620%	0.33804	53,695
2050	158,799	3.620%	0.32623	51,805	3.620%	0.32623	51,805
2051	158,254	3.620%	0.31484	49,824	3.620%	0.31484	49,824
2052	157,437	3.620%	0.30384	47,835	3.620%	0.30384	47,835
2053	156,327	3.620%	0.29322	45,839	3.620%	0.29322	45,839
2054	155,048	3.620%	0.28298	43,875	3.620%	0.28298	43,875
2055	153,465	3.620%	0.27309	41,910	3.620%	0.27309	41,910
2065	122,351	3.620%	0.19137	23,414	3.620%	0.19137	23,414
2075	76,709	3.620%	0.13410	10,287	3.620%	0.13410	10,287
2085	27,971	3.620%	0.09397	2,628	3.620%	0.09397	2,628
2095	3,806	3.620%	0.06585	251	3.620%	0.06585	251
2105	70	3.620%	0.04615	3	3.620%	0.04615	3
2115	-	3.620%	0.03234	-	3.620%	0.03234	-

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER EXEMPT/EXCLUDED/EXECUTIVE		
Fiscal Year Ending	June 30, 2017	June 30, 2018
Total OPEB Liability		
Service Cost	\$ 85,390	\$ 71,649
Interest on Total OPEB Liability	65,881	76,114
Changes of Benefit Terms	-	-
Difference between Expected and Actual Experience	-	(144,758)
Changes of Assumptions	(262,923)	(67,124)
Benefit Payments	(46,707)	(49,771)
Net Change in Total OPEB Liability	\$ (158,359)	\$ (113,890)
Total OPEB Liability - Beginning	\$ 2,249,404	\$ 2,091,045
Total OPEB Liability - Ending (a)	\$ 2,091,045	\$ 1,977,155
Plan Fiduciary Net Position		
Employer PayGO Contributions	\$ 46,707	\$ 49,771
Employer Pre Funding Contributions	-	-
Active Member Contributions	-	-
Net Investment Income	-	-
Benefit Payments	(46,707)	(49,771)
Administrative Expense	-	-
Other	-	-
Net Change in Plan Fiduciary Net Position	\$ -	\$ -
Plan Fiduciary Net Position - Beginning	\$ -	\$ -
Plan Fiduciary Net Position - Ending (b)	\$ -	\$ -
Net OPEB Liability - Ending (a) - (b)	\$ 2,091,045	\$ 1,977,155
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	0.000%	0.000%
Actuarially Determined Contribution (ADC)	\$ 93,212	\$ 96,008
Employer Contribution	\$ 46,707	\$ 49,771
Percentage of ADC made by Employer	50%	52%
Contribution Excess/(Shortfall)	\$ (46,505)	\$ (46,237)
Expected Return on Assets	\$ -	\$ -
Investment (Gain)/Loss	\$ -	\$ -
Average Expected Remaining Service	6.958847	7.188319
Blended Discount Rate Beginning of Year	2.850%	3.560%
Blended Discount Rate End of Year	3.560%	3.620%
Long-term Expected Return on Assets	7.280%	7.000%

Individual Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) EXEMPT/EXCLUDED/EXECUTIVE		
Measured for the Plan's Fiscal Year Ending Applicable for the Sponsor's Fiscal Year Ending	June 30, 2017 June 30, 2018	June 30, 2018 June 30, 2019
OPEB Expense		
Service Cost	\$ 85,390	\$ 71,649
Interest on the Total OPEB Liability	65,881	76,114
Current-Period Benefit Changes	-	-
Active Member Contributions	-	-
Projected Earnings on Plan Investments	-	-
Operating Expenses	-	-
Other Changes in Plan Fiduciary Net Position	-	-
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(20,138)
Recognition of Outflow/(Inflow) due to Assumption Changes	(37,782)	(47,121)
Recognition of Outflow/(Inflow) due to Investment Experience	-	-
Net OPEB Expense	\$ 113,489	\$ 80,504
Reconciliation of Net OPEB Liability		
Net OPEB Liability beginning of year	\$ 2,249,404	\$ 2,091,045
OPEB Expense	113,489	80,504
Employer Contributions	(46,707)	(49,771)
Change in Outflow/(Inflow) due to Non-investment Experience	-	(124,620)
Change in Outflow/(Inflow) due to Assumption Changes	(225,141)	(20,003)
Change in Outflow/(Inflow) due to Investment Experience	-	-
Net OPEB Liability End of year	\$ 2,091,045	\$ 1,977,155
Deferred (Inflows)		
Non-investment Experience	\$ -	\$ (124,620)
Assumption Changes	\$ (225,141)	\$ (245,143)
Investment Experience	\$ -	\$ -
Deferred Outflows		
Non-investment Experience	\$ -	\$ -
Assumption Changes	\$ -	\$ -
Investment Experience	\$ -	\$ -
Net OPEB Liability Sensitivity		
Baseline Discount Rate	3.560%	3.620%
Baseline Discount Rate and 4.5% Ultimate Trend	\$ 2,091,045	\$ 1,977,155
Increase Discount Rate by One Percentage Point	\$ 1,786,556	\$ 1,693,906
Decrease Discount Rate by One Percentage Point	\$ 2,474,746	\$ 2,333,244
Increase Trend Rate by One Percentage Point	\$ 2,505,811	\$ 2,296,860
Decrease Trend Rate by One Percentage Point	\$ 1,768,007	\$ 1,727,067

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM									
GASB NOS. 74 AND 75 DISCLOSURES									
DEFERRED INFLOWS AND OUTFLOWS									
EXEMPT/EXCLUDED/EXECUTIVE									
Valuation Date	6/30/2018								
Measurement Date	6/30/2018								
	Non-Investment Experience			Assumption Changes			Investment Experience		
	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization
Plan Year Beginning									
7/1/2016	\$ -	6.958847	\$ -	\$ (262,923)	6.958847	\$ (37,783)	\$ -	\$ 5.000000	\$ -
7/1/2017	\$ (144,758)	7.188319	\$ (20,138)	\$ (67,124)	7.188319	\$ (9,338)	\$ -	5.000000	\$ -
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Current Plan Year End	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2018	\$ -	\$ (20,138)	\$ (20,138)	\$ -	\$ (47,121)	\$ (47,121)	\$ -	\$ -	\$ -
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Future Plan Years Ending									
6/30/2019	\$ -	\$ (20,138)	\$ (20,138)	\$ -	\$ (47,121)	\$ (47,121)	\$ -	\$ -	\$ -
6/30/2020	\$ -	\$ (20,138)	\$ (20,138)	\$ -	\$ (47,121)	\$ (47,121)	\$ -	\$ -	\$ -
6/30/2021	\$ -	\$ (20,138)	\$ (20,138)	\$ -	\$ (47,121)	\$ (47,121)	\$ -	\$ -	\$ -
6/30/2022	\$ -	\$ (20,138)	\$ (20,138)	\$ -	\$ (47,121)	\$ (47,121)	\$ -	\$ -	\$ -
6/30/2023	\$ -	\$ (20,138)	\$ (20,138)	\$ -	\$ (45,563)	\$ (45,563)	\$ -	\$ -	\$ -
6/30/2024	\$ -	\$ (20,138)	\$ (20,138)	\$ -	\$ (9,338)	\$ (9,338)	\$ -	\$ -	\$ -
6/30/2025	\$ -	\$ (3,792)	\$ (3,792)	\$ -	\$ (1,758)	\$ (1,758)	\$ -	\$ -	\$ -
6/30/2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ (124,620)	\$ (124,620)	\$ -	\$ (245,143)	\$ (245,143)	\$ -	\$ -	\$ -
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2018			\$ (124,620)			\$ (20,003)			\$ -

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING ACTUARIAL VALUATION (\$ IN 000'S) 7.28% AT JULY 1, 2017 AND 7.00% AT JULY 1, 2018 OTHER		
	July 1, 2017	July 1, 2018
Number of Participants Covered		
Active Participants	4,576	4,234
Retired Participants ^a	<u>14,349</u>	<u>13,156</u>
Total Participants	18,925	17,390
Actuarial Present Value of Projected Benefits		
Active Participants	\$ 517,686	\$ 510,149
Retired Participants	<u>1,468,959</u>	<u>1,379,236</u>
Total Participants	\$ 1,986,645	\$ 1,889,385
Actuarial Accrued Liability		
Active Participants	\$ 329,751	\$ 326,574
Retired Participants	<u>1,468,959</u>	<u>1,379,236</u>
Total Participants	\$ 1,798,710	\$ 1,705,810
Actuarial Value of Assets	\$ -	\$ -
Unfunded Actuarial Accrued Liability	\$ 1,798,710	\$ 1,705,810
Net Employer ADC for FYE	June 30, 2018	June 30, 2019
Normal Cost	\$ 22,090	\$ 20,483
Administrative Expenses	354	339
Amortization of UAAL	<u>157,016</u>	<u>156,471</u>
Total ADC	\$ 179,460	\$ 177,293
Estimated Member Contributions	-	-
Net Employer ADC	\$ 179,460	\$ 177,293
Expected Claim Costs for FYE	June 30, 2018	June 30, 2019
Employer Explicit Costs		
Medical and Rx Claims	\$ 85,430	\$ 78,943
Part B Reimbursement	21,685	23,742
Dental Claims	<u>7,819</u>	<u>7,121</u>
Total	\$ 114,934	\$ 109,806
Employer Implicit Costs	<u>26,482</u>	<u>25,940</u>
Total Employer Costs	\$ 141,416	\$ 135,746
Retiree Share of Claim Costs		
Medical and Rx Claims	\$ 1,065	\$ 2,000
Dental Claims	<u>2,422</u>	<u>2,213</u>
Total	\$ 3,487	\$ 4,213
Total Claims Costs	\$ 144,903	\$ 139,959

^aRetired participants with dental only coverage, 967 as of July 1, 2017, and 886 as of July 1, 2018, are excluded from the above counts but are reflected in the actuarial valuation.

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM FULL-FUNDING PROJECTIONS BASED ON JULY 1, 2018, ACTUARIAL VALUATION (\$ IN 000'S) OTHER									
Fiscal Year Beginning 7/1/2018 Long-term Asset Return 7.000% Discount Rate 7.000% Year Plan is Fully Funded N/A									
FYE	Assets (boy)	Disbursements/ Benefits	Administrative Expenses	Pre-Fund Contribution	Investment Income	Assets (eoy)	Accrued Liability (eoy)	Funded Ratio	Normal Cost
2018	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	1,705,810	0.0%	\$ 20,483
2019	-	-	-	-	-	-	1,706,636	0.0%	19,476
2020	-	-	-	-	-	-	1,705,008	0.0%	18,793
2021	-	-	-	-	-	-	1,699,491	0.0%	18,129
2022	-	-	-	-	-	-	1,690,605	0.0%	17,428
2023	-	-	-	-	-	-	1,679,044	0.0%	16,682
2024	-	-	-	-	-	-	1,665,230	0.0%	15,937
2025	-	-	-	-	-	-	1,649,846	0.0%	15,260
2026	-	-	-	-	-	-	1,633,732	0.0%	14,556
2027	-	-	-	-	-	-	1,617,605	0.0%	13,824
2028	-	-	-	-	-	-	1,601,535	0.0%	13,145
2029	-	-	-	-	-	-	1,585,342	0.0%	12,460
2030	-	-	-	-	-	-	1,568,871	0.0%	11,762
2031	-	-	-	-	-	-	1,551,884	0.0%	11,089
2032	-	-	-	-	-	-	1,534,173	0.0%	10,512
2033	-	-	-	-	-	-	1,516,005	0.0%	9,963
2034	-	-	-	-	-	-	1,497,388	0.0%	9,374
2035	-	-	-	-	-	-	1,478,067	0.0%	8,795
2036	-	-	-	-	-	-	1,458,008	0.0%	8,223
2037	-	-	-	-	-	-	1,437,039	0.0%	7,639
2038	-	-	-	-	-	-	1,415,124	0.0%	7,063
2039	-	-	-	-	-	-	1,392,318	0.0%	6,535
2040	-	-	-	-	-	-	1,368,780	0.0%	6,072
2041	-	-	-	-	-	-	1,344,621	0.0%	5,642
2042	-	-	-	-	-	-	1,319,992	0.0%	5,228
2043	-	-	-	-	-	-	1,295,140	0.0%	4,830
2044	-	-	-	-	-	-	1,269,873	0.0%	4,426
2045	-	-	-	-	-	-	1,244,071	0.0%	4,014
2046	-	-	-	-	-	-	1,217,694	0.0%	3,598
2047	-	-	-	-	-	-	1,190,687	0.0%	3,179
2048	-	-	-	-	-	-	1,162,877	0.0%	2,768
2049	-	-	-	-	-	-	1,134,062	0.0%	2,367
2050	-	-	-	-	-	-	1,104,294	0.0%	1,981
2051	-	-	-	-	-	-	1,073,583	0.0%	1,622
2052	-	-	-	-	-	-	1,041,966	0.0%	1,295
2053	-	-	-	-	-	-	1,009,627	0.0%	1,004
2054	-	-	-	-	-	-	976,796	0.0%	753
2055	-	-	-	-	-	-	943,739	0.0%	550
2056	-	-	-	-	-	-	910,807	0.0%	392

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM DEVELOPMENT OF GASB NOS. 74 AND 75 SINGLE EQUIVALENT DISCOUNT RATE, (\$ IN 000'S) OTHER

20-Year GO Municipal Bond Rate at June 30, 2018 3.620%
Long-Term Investment Return 7.000%
Year Plan is Fully Funded N/A
Single Equivalent Rate 3.620%

Present Value of Benefits \$ 3,020,856 \$ 3,020,856

FYE	Net Employer Benefits	Cross-over Investment Return	Discount Factor	Discounted Benefit Payment	Single Equivalent Return	Discount Factor	Discounted Benefit Payment
2019	\$ 135,746	3.620%	0.98238	\$ 133,354	3.620%	0.98238	\$ 133,354
2020	137,135	3.620%	0.94806	130,012	3.620%	0.94806	130,012
2021	140,078	3.620%	0.91494	128,162	3.620%	0.91494	128,162
2022	142,273	3.620%	0.88297	125,624	3.620%	0.88297	125,624
2023	143,535	3.620%	0.85213	122,310	3.620%	0.85213	122,310
2024	144,160	3.620%	0.82236	118,551	3.620%	0.82236	118,551
2025	143,973	3.620%	0.79363	114,261	3.620%	0.79363	114,261
2026	142,940	3.620%	0.76590	109,478	3.620%	0.76590	109,478
2027	141,137	3.620%	0.73914	104,321	3.620%	0.73914	104,321
2028	139,236	3.620%	0.71332	99,320	3.620%	0.71332	99,320
2029	137,568	3.620%	0.68840	94,702	3.620%	0.68840	94,702
2030	136,035	3.620%	0.66435	90,375	3.620%	0.66435	90,375
2031	134,700	3.620%	0.64114	86,362	3.620%	0.64114	86,362
2032	133,557	3.620%	0.61874	82,637	3.620%	0.61874	82,637
2033	132,205	3.620%	0.59713	78,944	3.620%	0.59713	78,944
2034	130,844	3.620%	0.57627	75,401	3.620%	0.57627	75,401
2035	129,660	3.620%	0.55614	72,108	3.620%	0.55614	72,108
2036	128,467	3.620%	0.53671	68,949	3.620%	0.53671	68,949
2037	127,402	3.620%	0.51796	65,989	3.620%	0.51796	65,989
2038	126,295	3.620%	0.49986	63,130	3.620%	0.49986	63,130
2039	125,081	3.620%	0.48240	60,339	3.620%	0.48240	60,339
2040	123,701	3.620%	0.46555	57,589	3.620%	0.46555	57,589
2041	122,232	3.620%	0.44928	54,917	3.620%	0.44928	54,917
2042	120,610	3.620%	0.43359	52,295	3.620%	0.43359	52,295
2043	118,732	3.620%	0.41844	49,682	3.620%	0.41844	49,682
2044	117,042	3.620%	0.40382	47,264	3.620%	0.40382	47,264
2045	115,435	3.620%	0.38971	44,986	3.620%	0.38971	44,986
2046	113,820	3.620%	0.37610	42,808	3.620%	0.37610	42,808
2047	112,216	3.620%	0.36296	40,730	3.620%	0.36296	40,730
2048	110,733	3.620%	0.35028	38,788	3.620%	0.35028	38,788
2049	109,398	3.620%	0.33804	36,981	3.620%	0.33804	36,981
2050	107,958	3.620%	0.32623	35,220	3.620%	0.32623	35,220
2051	106,457	3.620%	0.31484	33,516	3.620%	0.31484	33,516
2052	104,885	3.620%	0.30384	31,868	3.620%	0.30384	31,868
2053	103,105	3.620%	0.29322	30,233	3.620%	0.29322	30,233
2054	101,093	3.620%	0.28298	28,607	3.620%	0.28298	28,607
2055	98,832	3.620%	0.27309	26,990	3.620%	0.27309	26,990
2065	74,522	3.620%	0.19137	14,261	3.620%	0.19137	14,261
2075	53,214	3.620%	0.13410	7,136	3.620%	0.13410	7,136
2085	22,805	3.620%	0.09397	2,143	3.620%	0.09397	2,143
2095	2,870	3.620%	0.06585	189	3.620%	0.06585	189
2105	49	3.620%	0.04615	2	3.620%	0.04615	2
2115	-	3.620%	0.03234	-	3.620%	0.03234	-

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM GASB NOS. 74 AND 75 DISCLOSURES CHANGE IN NET OPEB LIABILITY AND CONTRIBUTIONS MADE BY EMPLOYER OTHER		
Fiscal Year Ending	June 30, 2017	June 30, 2018
Total OPEB Liability		
Service Cost	\$ 64,873	\$ 55,285
Interest on Total OPEB Liability	82,194	94,010
Changes of Benefit Terms	-	-
Difference between Expected and Actual Experience	-	(193,067)
Changes of Assumptions	(243,150)	(43,635)
Benefit Payments	(135,079)	(140,414)
Net Change in Total OPEB Liability	\$ (231,162)	\$ (227,821)
Total OPEB Liability - Beginning	\$ 2,886,186	\$ 2,655,024
Total OPEB Liability - Ending (a)	\$ 2,655,024	\$ 2,427,203
Plan Fiduciary Net Position		
Employer PayGO Contributions	\$ 135,079	\$ 140,414
Employer Pre Funding Contributions	-	-
Active Member Contributions	-	-
Net Investment Income	-	-
Benefit Payments	(135,079)	(140,414)
Administrative Expense	-	-
Other	-	-
Net Change in Plan Fiduciary Net Position	\$ -	\$ -
Plan Fiduciary Net Position - Beginning	\$ -	\$ -
Plan Fiduciary Net Position - Ending (b)	\$ -	\$ -
Net OPEB Liability - Ending (a) - (b)	\$ 2,655,024	\$ 2,427,203
Plan Fiduciary Net Position as a Percentage Total OPEB Liability	0.000%	0.000%
Actuarially Determined Contribution (ADC)	\$ 174,233	\$ 179,460
Employer Contribution	\$ 135,079	\$ 140,414
Percentage of ADC made by Employer	78%	78%
Contribution Excess/(Shortfall)	\$ (39,154)	\$ (39,046)
Expected Return on Assets	\$ -	\$ -
Investment (Gain)/Loss	\$ -	\$ -
Average Expected Remaining Service	2.607026	2.749775
Blended Discount Rate Beginning of Year	2.850%	3.560%
Blended Discount Rate End of Year	3.560%	3.620%
Long-term Expected Return on Assets	7.280%	7.000%

Individual Actuarial Valuation Results

GASB NOS. 74 AND 75 DISCLOSURES OPEB EXPENSES AND NET OPEB LIABILITY SENSITIVITY (\$ IN 000'S) OTHER		
Measured for the Plan's Fiscal Year Ending Applicable for the Sponsor's Fiscal Year Ending	June 30, 2017 June 30, 2018	June 30, 2018 June 30, 2019
OPEB Expense		
Service Cost	\$ 64,873	\$ 55,285
Interest on the Total OPEB Liability	82,194	94,010
Current-Period Benefit Changes	-	-
Active Member Contributions	-	-
Projected Earnings on Plan Investments	-	-
Operating Expenses	-	-
Other Changes in Plan Fiduciary Net Position	-	-
Recognition of Outflow/(Inflow) due to Non-investment Experience	-	(70,212)
Recognition of Outflow/(Inflow) due to Assumption Changes	(93,267)	(109,136)
Recognition of Outflow/(Inflow) due to Investment Experience	-	-
Net OPEB Expense	\$ 53,800	\$ (30,053)
Reconciliation of Net OPEB Liability		
Net OPEB Liability beginning of year	\$ 2,886,186	\$ 2,655,024
OPEB Expense	53,800	(30,053)
Employer Contributions	(135,079)	(140,414)
Change in Outflow/(Inflow) due to Non-investment Experience	-	(122,855)
Change in Outflow/(Inflow) due to Assumption Changes	(149,883)	65,501
Change in Outflow/(Inflow) due to Investment Experience	-	-
Net OPEB Liability End of year	\$ 2,655,024	\$ 2,427,203
Deferred (Inflows)		
Non-investment Experience	\$ -	\$ (122,855)
Assumption Changes	\$ (149,883)	\$ (84,382)
Investment Experience	\$ -	\$ -
Deferred Outflows		
Non-investment Experience	\$ -	\$ -
Assumption Changes	\$ -	\$ -
Investment Experience	\$ -	\$ -
Net OPEB Liability Sensitivity		
Baseline Discount Rate	3.560%	3.620%
Baseline Discount Rate and 4.5% Ultimate Trend	\$ 2,655,024	\$ 2,427,203
Increase Discount Rate by One Percentage Point	\$ 2,365,295	\$ 2,166,118
Decrease Discount Rate by One Percentage Point	\$ 3,008,051	\$ 2,744,658
Increase Trend Rate by One Percentage Point	\$ 3,010,093	\$ 2,693,173
Decrease Trend Rate by One Percentage Point	\$ 2,365,858	\$ 2,209,310

Individual Actuarial Valuation Results

CALIFORNIA STATE EMPLOYEES POSTRETIREMENT BENEFITS PROGRAM									
GASB NOS. 74 AND 75 DISCLOSURES									
DEFERRED INFLOWS AND OUTFLOWS									
OTHER									
Valuation Date	6/30/2018								
Measurement Date	6/30/2018								
	Non-Investment Experience			Assumption Changes			Investment Experience		
	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization	(Gain)/Loss	Amortization Factor	Initial Amortization
Plan Year Beginning									
7/1/2016	\$ -	2.607026	\$ -	\$ (243,150)	2.607026	\$ (93,267)	\$ -	5.000000	\$ -
7/1/2017	\$ (193,067)	2.749775	\$ (70,212)	\$ (43,635)	2.749775	\$ (15,869)	\$ -	5.000000	\$ -
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Current Plan Year End	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net	Outflows	(Inflows)	Net
6/30/2018	\$ -	\$ (70,212)	\$ (70,212)	\$ -	\$ (109,136)	\$ (109,136)	\$ -	\$ -	\$ -
Deferred Outflows/(Inflows) Recognized in OPEB Expense for Future Plan Years Ending									
6/30/2019	\$ -	\$ (70,212)	\$ (70,212)	\$ -	\$ (72,485)	\$ (72,485)	\$ -	\$ -	\$ -
6/30/2020	\$ -	\$ (52,643)	\$ (52,643)	\$ -	\$ (11,897)	\$ (11,897)	\$ -	\$ -	\$ -
6/30/2021	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2022	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2023	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2024	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2025	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/30/2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ (122,855)	\$ (122,855)	\$ -	\$ (84,382)	\$ (84,382)	\$ -	\$ -	\$ -
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2018			\$ (122,855)			\$ 65,501			\$ -