

SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM
A Component Unit of the City of Sacramento, California

Annual Financial Report

Fiscal Year Ended June 30, 2017
(With Comparative Totals as of June 30, 2016)



SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM
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SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM

A Component Unit of the City of Sacramento
Letter to the Members of the Sacramento City Employees'
Retirement System and the Sacramento City Council
Fiscal Year Ended June 30, 2017

December 22, 2017

TO: Members of the Sacramento City Employees' Retirement System
Members of the Sacramento City Council

Transmitted herewith is the annual report of the Administration, Investment and Fiscal Management Board (Board) for the Sacramento City Employees' Retirement System (SCERS or System). This report addresses Board membership, history of the System, investment objectives, asset allocation, financial results, members' interest credit, fund performance, administration highlights, together with reports by an independent auditor and actuary, all as of the close of the 2017 Fiscal Year, or June 30, 2017.

The Annual Financial Report consists of three main sections: an Introductory Section represented by this letter of transmittal and the identification of the System's financial governing body, and the administrative and consulting services utilized by SCERS; the Financial Section which contains the Independent Auditor's Report; Management's Discussion and Analysis (MD&A), and the financial statements of SCERS; and the Actuarial Section which contains the independent consulting actuary's valuation along with related actuarial data and statements.

BOARD MEMBERSHIP

As set out in the Sacramento City Charter, the Board is comprised of five members, three of whom are City officials (or their designees), and two of whom are public citizen members appointed by the City Council. The Sacramento City Manager, City Treasurer and Director of Finance are the City officials designated to serve on this Board. By City Charter, the public citizen members must be residents of the City of Sacramento, not connected with City government, and at least one of these members must be qualified by training and experience in the management and investment of funds.

The members of the Board as of the close of the fiscal year are as follows:

City Officials

Howard Chan, City Manager (Dennis Kauffman, Designee)
John Colville, City Treasurer
Leyne Milstein, Director of Finance

Public Citizen Members

David DeCamilla - President, DeCamilla Capital Management
Manuel Leon – State of California

David DeCamilla was re-elected by the Board in January 2010 to serve as Board Chair, a position he has held since January 1988. Mr. DeCamilla has served on the Board since February 1985, starting with a partial term as replacement for a departing boardmember and continuously in full term appointments from February, 1998 to the present.

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Manuel Leon, an employee of the State of California, State Senate, was appointed to the Board in February, 2016 as a public citizen Board member and has served as the Vice-Chair since April, 2016.

John Colville, City Treasurer, was appointed to his current position in February, 2017 and assumed his position on the Board in February, 2016 upon his appointment as Interim City Treasurer. Prior to his appointment as City Treasurer, Mr. Colville served as Interim City Treasurer and prior to that, as Chief Investment Officer for the City. As Chief Investment Officer, Mr. Colville supervised the investment activities of the City Treasurer's Office, including the investment of City and SCERS funds. Mr. Colville has been a City employee since 2004.

Howard Chan, City Manager, was appointed to his current position in February, 2017 and assumed the Board membership position at that time. Mr. Chan appointed Dennis Kauffman, Finance Operations Manager as his designee on the Board. Mr. Kauffman was appointed to the position of Accounting Manager in 2014 and has been a City employee since 2000.

Leyne Milstein, Finance Director, assumed Board membership at the time she was appointed to her current position in October 2008. Prior to this appointment, Ms. Milstein held the position of Budget Manager and has been a City employee since 2005.

HISTORY

SCERS is a defined benefit plan in which retirement benefits for City member employees are based upon age, final compensation and length of service. City employee members make contributions to the System and, until 1993, the City made a normal contribution which was a percentage of total City payrolls. These cash payments are held in trust and invested to meet the retirement benefits of members. However, if these invested assets prove inadequate to meet the defined benefits, the City of Sacramento must contribute additional monies to pay benefits. Between fiscal year 1988/1989 and fiscal year 2006/2007, the System's anticipated liabilities were fully funded or in an actuarial surplus condition, and the City was not required to make contributions to the System during that time period. The City has been required to make contributions from fiscal year 2007/2008 through the present.

In 1977, with the passage of Measure E, SCERS became a "closed" system, i.e. there would be no additional employees participating in the plan. Since that time, all full-time and eligible part-time employees of the City participate in the California Public Employees' Retirement System (CalPERS) rather than SCERS. In 1977 the average age of SCERS active members was 36 years.

In June 1989, the voters of Sacramento approved the transfer of SCERS active safety members to CalPERS. Effective December 30, 1989, SCERS active safety members were transferred to CalPERS with a cash transfer of \$103.3 million in January 1990.

As of June 30, 2017, the average age of SCERS active members is 63.2 years and the average years of service is 33.9 years. As of said date, there are 16 active miscellaneous members and a total of 1,085 plan participants.

Pursuant to the Sacramento City Charter, the Board has exclusive authority to invest and manage the System's funds. The Board, in turn, has selected the Sacramento City Treasurer and Treasurer's Office

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investment personnel to conduct daily investment activities consistent with Board-approved policies and direction. The City Treasurer's office also serves as staff to the Board.

INVESTMENT OBJECTIVES

The overarching goal of the SCERS investment program is to utilize prudent investment practices to generate adequate long-term returns that, when combined with employer and employee contributions, will result in sufficient assets to pay the present and future obligations of the System. In furtherance of this goal, the Board has adopted an investment policy that, among other things, authorizes the investment in different asset classes to promote both long-term returns and short-term cash needs. The emphasis on cash income and fixed-income investments is intended to meet current benefit payments on a continuing basis, while equity investments are intended to grow the asset base with dividend income providing additional support for current benefit payments.

The emphasis on interest revenue and dividend income is particularly important for SCERS as there are no new entrants to the system to provide a continuing source of funds to help cover the liabilities of the system. Cash payments for benefits have exceeded contributions since 1989. Accordingly, the cash generation emphasis in SCERS investments is a critical feature required from SCERS status as a "closed" fund, i.e. a fund that has negligible and declining numbers of active, contributing members. Equity investments are permitted to inject an element of growth within the investment portfolios to grow the System's asset base. However, SCERS equity allocations are less than the levels utilized by many other pension plans so that the volatility in valuation inherent in equity investments will not unduly interfere with the ability of the investments to generate an adequate level of cash flow.

The Board annually reviews and approves the SCERS investment policy and forwards the same to the City Council for its approval pursuant to City Charter requirements. All SCERS investments are held by a third-party custodian, except for real estate trust deeds.

ASSET ALLOCATION

Pursuant to the SCERS investment policy, the Board annually reviews its asset allocation, i.e. the allocation of the System's funds to different investment asset classes. On February 22, 2016, the Board established the asset allocation of the investment of SCERS funds during the fiscal year beginning July 1, 2016 and ending June 30, 2017. The Board voted to continue to implement a balanced asset allocation as follows:

| | |
|---------------------|-----------|
| <u>Fixed Income</u> | |
| Fixed Bond | 40% |
| <u>Equity</u> | |
| Large Cap Growth | 35% |
| Equity Income | 20% |
| International | <u>5%</u> |
| | 100% |

ACTUARIAL EARNING ASSUMPTION

During the fiscal year ending June 30, 2017, SCERS actuarial earnings assumption was 6.5 percent.

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FINANCIAL RESULTS

The plan net assets of SCERS increased from \$285.170 million to \$288.509 million by the end of fiscal year ended June 30, 2017. This \$3.33 million increase is summarized as follows:

| SCERS PLAN NET ASSETS | \$ in thousands |
|-----------------------------|-----------------|
| Plan net assets 6/30/16 | \$ 285,170 |
| Members Contributions | 64 |
| City Contributions | 8,645 |
| Net Investment Income | 27,987 |
| Benefit Payments & Expenses | (32,171) |
| Plan net assets 6/30/17 | \$ 288,509 |

SCERS' Actuarial Accrued Liability (AAL) as of June 30, 2017 is approximately \$336.8 million. AAL represents the present value of all future benefits that will be paid by SCERS. SCERS funding ratio using market value of assets was 85.6 percent of AAL on June 30, 2017. The funding ratio is defined as that portion of the total AAL for which there are assets available for benefits. As such, the System's actuary indicates that for every dollar of benefits due, SCERS has approximately \$0.85 of assets available for payment.

An actuarial analysis of assets shows the rate of investment return for fiscal 2016-17 was 9.8% percent net of investment expense, which is above the assumed actuarial rate of return of 6.5 percent per annum.

TOTAL FUND PERFORMANCE

As required by the SCERS Investment Policy, the Board retained a third-party firm, namely Segal Rogercasey (formerly Rogercasey) to calculate total investment return and measure investment performance. Segal Rogercasey is an independent fund evaluation and performance measurement service that calculates and reports the investment results of over 2,500 managed pension investment portfolios in the U.S. Segal Rogercasey calculates the investment results of the managed portfolios and compares such results to the database of predetermined industry benchmarks.

Table 1 below shows investment return results of SCERS for the specified periods ended June 30, 2017:

| SCERS Total Rate of Return TOTAL PLAN ASSETS For the periods ended June 30, 2017 | | | |
|--|--------|--------|---------|
| Annualized Compound Returns | 1 Yr. | 3 Yrs. | 10 Yrs. |
| SCERS – All Funds | 10.17% | 5.99 | 5.57 |
| Custom Index – Target | 8.53 | 4.60 | 4.53 |
| Actuarial Assumption | 6.50% | 6.50% | 6.50% |

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For the fiscal year ended June 30, 2017, the total return of the System's invested assets resulted in a 10.17% overall return. The indicated Custom Index – Target is a blended return amount based on the actual market performance of Segal Rogerscasey benchmarks representing each of the investment asset classes utilized by the System pursuant to the Board's established asset allocation. The System's investment returns exceeded the market-based benchmarks utilized by Segal Rogerscasey for each of the 1-year, 3-year and 10-year time frames. Accordingly, System investments took advantage of the returns the various asset classes provided to the investing marketplace, plus added additional returns for each time period. While the System outperformed the benchmarks, both the 3 yr and 10 yr portfolio and benchmark returns fell short of the 6.5% actuarial rate of return assumptions. Consistent with the "prudent person" standard set forth in the SCERS investment policy, the Board and its investment staff did not attempt to boost performance to the actuarial rate of return by going into riskier investments that would inject more volatile, non-transparent and/or illiquid assets into the portfolio. Rather, driven by the System's status as a "closed" fund virtually devoid of present and future member cash contributions, the System's investment policy points to a relatively conservative investment scheme that stresses the importance of preservation of capital and generation of cash flows from such assets.

Preservation of the SCERS' assets is challenged by the required cash payments of retiree benefits paid from such assets. As the number of active members and their contributions have been in constant decline, the number of retirees and hence the amount of cash needed for benefits payments has stabilized and will decline over time. The preservation of the System's assets at the same time the liabilities of the plan decline (declining retiree benefits being paid) will facilitate improving funding ratios over time. Increasing the funding ratio overtime will further decrease the need to incur risk in the portfolio as the System works towards an endgame of meeting the benefit payments of a dwindling retiree pool in an orderly, non-volatile manner.

To best manage the long term competing factors of capital preservation and cash generation, the Board historically has placed emphasis on income-generating investments. Such investments include allocations to interest-bearing fixed income instruments as well as dividend-paying equity securities. The emphasis on interest-bearing fixed income investments reached as high as 70% of plan assets in 1995, all with the goal of generating cash yields close to the actuarial return assumption of 6.5%. Such fixed income investments form the Fixed Fund maintained by the System.

Long term interest rates continued to fall from their high levels in the early 1980's, including consistent declines since then through 2008-2009 financial crisis that resulted in historic low rates. As the yield on long maturity bonds fell below the actuarial return assumption, the Board started to allocate funds to dividend-paying equities. At first, these dividend-paying equity holdings were lumped together with interest-bearing fixed income securities, all within the Fixed Fund. While the dividend-paying stocks have certain bond-like attributes, such as a consistent, steady stream of periodic income, they behave sufficiently different to warrant analyzing and managing such holdings separately from bond holdings. From and after 2008, such stocks were recorded in their own portfolio within the System known as the Equity Income Fund. The Equity Income Fund's cash dividends, as well as the interest earned on Fixed Fund holdings, constitute an important portion of the return on the System's assets. In addition, Equity Income stock holdings may also contribute capital returns in the form of higher share values.

For the fiscal year, approximately 60% of the System's assets were allocated to the Fixed Fund (40%) and Equity Income Fund (20%). The overweight to income-generating investments reflects the Board's prudent approach to maintain the actuarial soundness of the System and the ability to pay retiree benefits. Moreover,

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the volatility of the Fixed Fund and Equity Income Fund is less than what is experienced in the other growth equity portions of the SCERS portfolio. In overweighting the portfolio to these two Funds, the Board seeks more consistent cash revenue and total returns while minimizing undue volatility in City contributions which may take place as a result of wide swings in portfolio value from greater weightings to the more growth oriented equity allocations.

Fixed Income Performance

Based on the Board's asset allocation for FY2017, 40% of SCERS assets were allocated to fixed income investments within the Fixed Fund. During the year, such fixed income investments included corporate, municipal and mortgage-backed bonds, plus short-term, cash-equivalent investments. In addition, the Fund includes real estate first trust deed funded by the System. All told, the Fixed Fund's investments are debt securities whose primary source of portfolio return is interest income, with increases in value of the holdings a secondary source of return.

Table 2 reflects SCERS' performance of the Fixed Fund for various periods ending June 30, 2017

| Table 2 | | | |
|-------------------------------------|-------|--------|---------|
| SCERS Total Rate of Return | | | |
| FIXED INCOME | | | |
| For the periods ended June 30, 2017 | | | |
| Annualized Compound Returns | 1 Yr. | 3 Yrs. | 10 Yrs. |
| SCERS Fixed Fund | 1.43 | 4.16 | 6.79 |
| Fixed Portfolio Index* | -.31 | 2.48 | 4.47 |

*Fixed Portfolio Index = 100% Barclays US Aggregate from March 2008 to present; prior to March 2008, 100% Barclays US Intermediate Aggregate.

The Fixed Fund produced a total rate of return of 1.43% for the one-year period ending June 30, 2017, a rate substantially greater than the Fund's market-based benchmark, the Barclays US Aggregate Bond Index that turned in negative returns at -.31%. This continues a long history of outperformance as reflected by the returns for the 3 and 10-year timeframes. Over the past 10 years, the Fixed Fund has returned 6.79% annually which exceeds the benchmark return of 4.47% and, more importantly, matches the assumed actuarial rate of return of 6.5%. Hence, the Fixed Fund has been a key contributor to the performance of the entire Plan. The Fixed Fund's outperformance is due primarily to its heavy weighting in high-quality, high coupon corporate and municipal securities.

This year's fixed fund return of 1.43% is far below the 7.71% return of the fund for the previous fiscal year (FY 2016). This decrease in returns was prompted by the rising rate environment that started in the Fall of 2014 (termination of the Federal Reserve (Fed) bond purchase program), continued with the Fed's initial hiking of the Federal Funds rate in December, 2015, and grew in momentum with three 0.25% Federal Fund rate hikes during FY2017 (bond prices move in inversely to interest rates as higher rates result in lower bond values). The recent rate increases in the short-term Federal Funds rate, coupled with a strengthening labor market and economy, resulted in rate increases across all maturities on the yield curve. The percentage increase was the largest in shorter maturity bonds. The Fixed Fund average maturity of

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12.94 years helped the portfolio to hold value more effectively than the broader bond market. Importantly, the high coupons of the portfolio's holdings contributed in excess of \$4.5 million dollars in cash interest payments.

Equity Investment Performance

Equity investment is a broad term used to describe investments in ownership interests in the issuing corporation. Common stocks represent corporate ownership interests. Stocks are typically purchased with the desire to capitalize on the growth of the issuing corporation. Also, many corporations pay dividends to holders of their common stock which provides shareholders with cash income. Common stocks can be purchased individually so the shareholders can target specific companies for growth and/or income purposes. Common stocks may also be purchased in groups through exchange traded funds (ETF's). ETF's can hold stocks of companies included in indexes (e.g. S&P 500 and Russell 2000) or which participate in various economic sectors (e.g. technology, financial and energy sectors) or focus on different investment themes (e.g. growth and value stocks). ETF's provide investors with effective tools to provide exposure into broad swaths of the market or in to specific sectors of the economy. This is as opposed to requiring investors to identify stocks of individual companies to achieve the same exposure, all while incurring the risk that such selected individual companies fail to perform inline with the index or sector (known as "single company risk"). While an ETF represents a collection of stocks, each ETF trades like stocks of individual companies on the major exchanges. SCERS equity portfolios are invested in both single company stocks and ETF's.

By Board policy for the fiscal year ending June 30, 2017, 60% of SCERS assets were to be allocated to equity investments, both domestic and international and including both growth and income objectives.

Table 3 shows the performance of SCERS' equity investments, both domestic and international:

| Table 3 | | | |
|--|-------|--------|---------|
| SCERS Total Rate of Return | | | |
| DOMESTIC EQUITY INVESTMENTS | | | |
| For the periods ended June 30, 2017 | | | |
| Annualized Compound Returns | 1 Yr. | 3 Yrs. | 10 Yrs. |
| SCERS Domestic Equities | 15.61 | 8.40 | 4.74 |
| Domestic Equity Index | 16.19 | 6.96 | 5.11 |
| Individual SCERS Domestic Equity Portfolios | | | |
| Large Cap Growth Fund | 17.97 | 8.19 | 4.24 |
| Large Cap Index** | 15.46 | 7.33 | 4.89 |
| Equity Income Fund | 11.65 | 9.13 | 7.41 |
| Equity Income Index*** | 12.66 | 7.66 | 3.11 |

**Large Cap Index = Dec 1992 – June 2007 = 100% Russell 1000 Growth, June 2007 to present = 100% S&P 500

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***Equity Income Index = Apr 1986 – Feb 1992 = 100% Fixed Portfolio, Mar 1992 to present = 100% Dow Jones Select Dividend Index

| Table 3 | | | |
|---|-------|--------|---------|
| SCERS Total Rate of Return INTERNATIONAL EQUITY INVESTMENTS For the periods ended June 30, 2017 | | | |
| Annualized Compound Returns | 1 Yr. | 3 Yrs. | 10 Yrs. |
| SCERS International Fund | 18.78 | -0.96 | -1.24 |
| International Equity Index* | 17.47 | -1.76 | -1.56 |

*International Index = Feb 2006 – Jun 2007 = 33% Nikkei, 67% MSCI EAFE, Jul 2007 to present = 100% MSCI ACWI ex US

Per Table 3, the performance of the overall SCERS domestic equity portfolio was 15.61% for the one-year period as compared to the 16.19% return by the benchmark (Russell 3000 which represents the stocks of approximately 98% of US publicly traded corporations). While the double-digit percentage return of the domestic equity portfolios fell just short of the broad market benchmark, these portfolios (and the benchmark) significantly outperformed the Plan's actuarial rate of return of 6.5%. The above average performance of the portfolios and the market benchmark is commensurate with surging US economic growth and growing evidence of a global synchronized recovery in the world's economies.

The two domestic stock portfolios, Large Cap Fund and Equity Income Fund, and the International Fund showed double-digit returns, including 17.97%, 11.65% and 18.78%, respectively.

The Plan's largest equity portfolio is the Large Cap Growth Fund which is benchmarked to the S&P500 Index. The double-digit returns of the Fund far exceeded the historical average domestic stock return of between 9% and 10% and clearly outperformed the benchmark S&P500 return of 15.46%. The domestic market meandered during the early part of FY2017 as the country was faced with geo-political issues and a highly contentious and divisive presidential campaign, providing flat returns up to the November, 2017 election day. Markets rallied after election day, mostly fueled by the prospects of lower corporate taxes and reduced business regulations. That rally continued in more muted fashion following the immediate post-election market reactionary rally. While the incoming administration failed to achieve any of its major campaign promises through the end of the fiscal year, the market's steady rise can be attributed both to continued domestic economic growth and budding international economic performance.

The second largest equity portfolio is the Equity Income Fund. As stated above, the purpose of this Fund is primarily to boost the dividend cash income of the Plan to provide a source of benefit payments. Like the Large Cap Growth Fund, the Equity Income Fund experienced a rapid rise following the 2016 presidential election. However, after the initial spurt, the Fund's advance was more muted than the Large Cap Growth Fund as investors favored growth investments contained in the latter portfolio over the more value oriented assets in the Equity Income Fund. The Fund's total return was 11.65% which return fell short of its benchmark, but, importantly, outperformed the actuarial rate of return of 6.5% by a wide margin. Notwithstanding the total return underperformance, the Equity Income Fund helps to fulfill the Board's objective of enhancing cash income to help pay benefits. The Fund's yield from dividends was 2.97% for the year, providing cash to the System as intended.

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The International Fund holds equities issued by foreign corporations. It is the smallest of the three equity portfolios. While almost half of the world's investable equities are issued by foreign companies, the Board has kept the portfolio's weighting low (5% for the year ending June 30, 2017) due to global economic and political uncertainties as well as geo-political strife. The lower weighting to international stocks was reflective of the past ten years when international stocks were either in bear markets or otherwise vastly underperformed the domestic stock market. However, foreign markets started to improve in late FY2016 and all during FY2017, including a waking of the long-dormant Japanese market and monetary stimulus finally initiating growth in Europe. Emerging market performance also picked up as commodity prices stabilized or improved. In the second half of the fiscal year, investment staff increased international exposure. By the end of the fiscal year, the international benchmark outperformed the domestic benchmark and the International Fund gained 18.78% which compares to 17.47% benchmark return.

In 2014, the Board authorized an options program primarily involving the writing of call options on existing equity holdings. The purpose of the options program is to increase cash income to the Fund and provide a hedge against the decline in its investments. Since its inception, the call-write program has had a positive impact on the returns and cash generation of the Fund.

INDEPENDENT AUDIT

SCERS receives an independent audit of the basic financial statements. An independent audit has been performed for the fiscal year ended June 30, 2017, and the auditor's opinion is included in this report. The City of Sacramento is responsible for establishing and maintaining internal controls designed to ensure the protection of assets from loss, theft, or misuse, and for ensuring the accounting information generated is adequate to prepare financial statements in conformity with accounting principles generally accepted in the U.S. The design of the internal controls is to provide reasonable assurance, although not absolute assurance, of achieving these objectives. The accuracy and completeness of the data outlined in this report is the sole responsibility of the management of SCERS.

ACTUARIAL VALUATION

The actuarial valuation report for SCERS as of June 30, 2017 is presented in this document. Very briefly, this report identifies a Net Pension Liability (NPL) of \$48.369 million as of June 30, 2017. This amount represents a 9.9% decrease in NPL over the prior fiscal year.

PROFESSIONAL SERVICES

SCERS engages the following consultants to assist in the management and investment of assets:

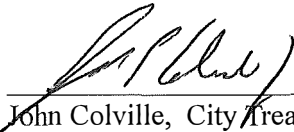
| <u>Firm</u> | <u>Duties</u> |
|-------------------|--|
| Segal Rogerscasey | Performance evaluation |
| Bartel Associates | Actuarial evaluation and asset allocation (Since 6/30/06) |
| Bank of New York | Custody and master trust (since 3/1/96) |

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BOARD MEETINGS

For the fiscal year ending June 30, 2018, regular meetings of the Board will be held in City Treasurer's Conference Room 2nd Floor, 915 "I" Street, at 1:30 p.m., on August 10, 2017, October 26, 2017 November 27, 2017, February 1, 2018 and May 3, 2018. The Board's meetings are open to the public and attendees are afforded the opportunity to provide input on any matter on the meeting agenda or not on the agenda that may be related to the Board's activities.



John Colville, City Treasurer
Administration, Investment and
Fiscal Management Board

POLICY STATEMENT

As a matter of policy, the Administration, Investment and Fiscal Management Board has determined the following schedules shall be included as addenda to the Annual Financial Report of the Sacramento City Employees' Retirement System:

1. A letter of transmittal to the City Council from the Board Chair;
2. An independent auditor's report;
3. A statement of the System's financial position;
4. A summary schedule of changes in the investment position during the year by security type;
5. A detailed listing of investments (by security) as of the end of the fiscal year;
6. A statement from the Actuary showing the estimated position of the Fund based on latest actuarial projections; and
7. The policy statement of the Board. The Board shall notify recognized employee organizations and the City Council of any changes in the policy statement that are to be made.

Adopted May 1978



VAVRINEK, TRINE, DAY & CO., LLP
Certified Public Accountants

VALUE THE *difference*

INDEPENDENT AUDITORS' REPORT

Administration, Investment and Fiscal
Management Board
Sacramento City Employees' Retirement System
Sacramento, California

Honorable Mayor and City
Council
City of Sacramento
Sacramento, California

We have audited the accompanying financial statements of the Sacramento City Employees' Retirement System (SCERS), a component unit of the City of Sacramento, California (City), as of and for the year ended June 30, 2017, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Sacramento City Employees' Retirement System as of June 30, 2017, and the changes in financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Prior-Year Comparative Information

The financial statements include partial prior-year comparative information. Such information does not include all of the information required to constitute a presentation in conformity with accounting principles generally accepted in the United States of America. Accordingly, such information should be read in conjunction with SCERS' financial statements for the year ended June 30, 2016, from which such partial information was derived.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 3-6 and the schedules of changes in the net pension liability and related ratios, schedule of employer contributions, and schedule of investment returns on pages 21-24 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that comprise the SCERS' basic financial statements. The introductory section, schedule of changes in investment position, listing of investments, and actuarial section are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The schedule of changes in investment position and listing of investments are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, schedule of changes in investment position and listing of investments are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The introductory and actuarial sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Vavrinik, Trine, Day & Co. LLP

Sacramento, California
December 22, 2017

SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM

A Component Unit of the City of Sacramento
Management's Discussion and Analysis (Unaudited)
Fiscal Year Ended June 30, 2017

The management of the Sacramento City Employees' Retirement System (SCERS) is pleased to provide this overview and analysis of the financial activities of SCERS for the fiscal years ended June 30, 2017 and 2016. We encourage readers to consider the information presented here in conjunction with the Financial Statements and Supplemental Schedules that follow this discussion.

Financial Highlights

- SCERS held \$288.5 million of net position restricted for pension benefits at June 30, 2017 and \$285.1 million at June 30, 2016. All of the net position is restricted for SCERS' ongoing obligation to plan participants and their beneficiaries.
- SCERS' funding objective is to maintain sufficient net position through investments and contributions to meet long-term obligations for benefits. As of June 30, 2017, for every dollar of total pension liability, SCERS had approximately \$0.86 available to pay those benefits. That number is based on the most recent actuarial valuation as of June 30, 2017 and is calculated based on the requirements of GASB Statement No. 67. As of June 30, 2016, SCERS had a funded status, as defined under GASB Statement No. 67, of 78% which means that for every dollar of benefits due as of that date, SCERS had approximately \$0.78 of assets available for payment.
- SCERS' employer contribution was \$8.6 million for the fiscal year ended June 30, 2017, similar to the \$8.6 million in 2016.
- For the fiscal year ended June 30, 2017, SCERS' net income from investment activity was \$26.8 million compared to net investment income of \$7.8 million in the prior year. The increase in return was a result of greater appreciation in the fair value of the investments during fiscal year 2017 compared to fiscal year 2016.

Overview of Financial Statements

The following discussion and analysis are intended to serve as an introduction to SCERS' financial statements, which are comprised of the following components:

1. **Statement of Plan Net Position** is a snapshot of account balances as of June 30, 2017 with comparative amounts for 2016. It indicates the total assets and the total liabilities as well as the net position available for future payment of retirement benefits and investment expenses.
2. **Statement of Changes in Plan Net Position** provides a view of additions and deductions to SCERS' net position during each of the fiscal years.
3. **Notes to Financial Statements** and **Required Supplementary Information** provide additional information that is essential to a full understanding of the data provided in the basic financial statements.

The statement of plan net position and the statement of changes in plan net position report information about SCERS' financial activities, prepared using the accrual basis of accounting. Contributions to SCERS are recognized when due, and benefits and refunds are recognized when due and payable. Investments are reported at fair value, except mortgage loans, which are reported at amortized cost. The estimated fair value of investments is the quoted market price. Purchases and sales of investments are recorded on a trade date basis.

SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM

A Component Unit of the City of Sacramento
Management's Discussion and Analysis (Unaudited)
Fiscal Year Ended June 30, 2017

Financial Analysis

SCERS' net position may serve over time as a useful indication of SCERS' financial position. All of SCERS' net position is restricted for SCERS ongoing obligation to plan participants and their beneficiaries.

SCERS' net position as of June 30, 2017 and 2016 is represented in the chart below.

NET POSITION SUMMARY
As of June 30, 2017 and 2016
(in thousands)

| | <u>2017</u> | <u>2016</u> | <u>Change</u> | <u>Percent</u> |
|--|-------------------|-------------------|-----------------|----------------|
| Cash and cash equivalents | \$ 8,601 | \$ 14,782 | \$ (6,181) | -42% |
| Receivables | 1,600 | 1,686 | (86) | -5% |
| Investments at fair value | <u>279,213</u> | <u>271,593</u> | <u>7,620</u> | <u>3%</u> |
| Total assets | <u>289,414</u> | <u>288,061</u> | <u>1,353</u> | <u>0%</u> |
| | | | | |
| Total liabilities | <u>904</u> | <u>2,891</u> | <u>(1,987)</u> | <u>-69%</u> |
| | | | | |
| Net position restricted for pension benefits | <u>\$ 288,510</u> | <u>\$ 285,170</u> | <u>\$ 3,340</u> | <u>1%</u> |

SCERS' net position restricted for pension benefits increased the fiscal year ended June 30, 2017 due primarily to the increase in the value of investments. Cash decreased as the benefits payable were reduced.

SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM

A Component Unit of the City of Sacramento
 Management's Discussion and Analysis (Unaudited)
 Fiscal Year Ended June 30, 2017

The following table shows the changes in the various additions and deductions:

HIGHLIGHTS OF CHANGES IN NET POSITION
Fiscal year ended June 30, 2017
 (in thousands)

| | <u>2017</u> | <u>2016</u> | <u>Change</u> | <u>Percent</u> |
|--|-------------------|-------------------|-----------------|----------------|
| Additions: | | | | |
| Employer contributions | \$ 8,645 | \$ 8,645 | \$ - | 0% |
| Employee contributions | 63 | 146 | (83) | -57% |
| Net appreciation in the fair value of investments | 17,997 | (908) | 18,905 | 2082% |
| Interest | 4,639 | 5,236 | (597) | -11% |
| Dividends | 5,350 | 4,609 | 741 | 16% |
| Investment expenses | (1,183) | (1,138) | (45) | 4% |
| Total additions | <u>35,511</u> | <u>16,590</u> | <u>18,921</u> | <u>114%</u> |
| Deductions: | | | | |
| Benefit payments | 32,171 | 32,633 | (462) | -1% |
| Refunds of employee contributions | - | 50 | (50) | -100% |
| Total deductions | <u>32,171</u> | <u>32,683</u> | <u>(512)</u> | <u>-2%</u> |
| Net increase/(decrease) in net position | 3,340 | (16,093) | 19,433 | -121% |
| Net position restricted for pension benefits: | | | | |
| Beginning of fiscal year | 285,170 | 301,263 | (16,093) | -5% |
| End of fiscal year | <u>\$ 288,510</u> | <u>\$ 285,170</u> | <u>\$ 3,340</u> | <u>1%</u> |

- Required employer contributions decreased for the fiscal year ended June 30, 2016 due to improved performance of the investment portfolio over the past several years and stayed unchanged during fiscal year ended June 30, 2017.
- Employee contributions for the fiscal year ended June 30, 2017 decreased slightly from 2016 due to retirements. Contributions are expected to decline as the system is closed to new members and the number of active members is decreasing each year.
- Net appreciation in fair value of investments has increased by \$18.9 million. The \$18 million gain during the fiscal year ended June 30, 2017 include \$4.9 million unrealized gain and \$13.1 million realized gain compared to \$12.9 unrealized loss and \$12 million realized gains during the fiscal year ended June 30, 2016. The largest gain incurred in the exchange traded fund portfolios.
- Benefit payments to plan participants decreased because of a decline in the number of participants receiving benefits. The decrease was somewhat offset by the annual inflation adjustment made to the benefit amount. Because the plan has been closed for nearly 35 years, the number of participants receiving benefits declines each year.

SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM

A Component Unit of the City of Sacramento
Management's Discussion and Analysis (Unaudited)
Fiscal Year Ended June 30, 2017

Changes in Funded Ratio

With the implementation of GASB Statement No. 67 on July 1, 2013, the components of the funded ratio have changed. Prior to the implementation of GASB Statement No. 67, the funded ratio was the ratio of the actuarial value of plan assets to the actuarial accrued liability, as defined in GASB Statement No. 25. Since the implementation of GASB Statement No. 67, the funded ratio is the ratio of fiduciary net position to total pension liability, as defined in GASB Statement No. 67.

Under both definitions, the funded ratio shows how much net position the plan has available to pay each dollar of benefit liability as of the measurement date. SCERS funded ratio for the years ended June 30, 2016 and 2017 is 77.9% and 85.6%, respectively. The increase between June 30, 2016 and June 30, 2017 is largely due to investment gains.

Currently Known Facts and Events

The overall risk profile of SCERS has remained unchanged since June 30, 2017, and the volatility of the investment portfolio remains in line with the overall financial markets. The global capital markets are highly dynamic and the value of SCERS investments changes every day.

Requests for Information

This financial report is designed to provide a general overview of SCERS' finances, and to demonstrate SCERS' accountability for the money it receives and distributes. If you have questions about this report, or need additional financial information, contact the City of Sacramento Department of Finance, Accounting Division, 915 I Street, 4th floor, Sacramento, California 95814.

SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM

Statement of Plan Net Position

June 30, 2017

With Comparative Totals for June 30, 2016

(Amounts Expressed in Thousands)

| | <u>2017</u> | <u>2016</u> |
|---|-------------------|-------------------|
| Assets | | |
| Cash and cash equivalents | \$ 8,601 | \$ 14,782 |
| Receivables: | | |
| Interest and dividends | 1,600 | 1,686 |
| Total receivables | <u>1,600</u> | <u>1,686</u> |
| Investments: | | |
| U.S. agencies | 1,182 | 1,430 |
| Corporate bonds | 37,148 | 53,775 |
| Equities | 68,397 | 50,326 |
| Exchange traded funds | 117,852 | 114,915 |
| Municipal bonds | 52,902 | 49,223 |
| Mortgage loans | 1,732 | 1,924 |
| Total investments | <u>279,213</u> | <u>271,593</u> |
| Total assets | <u>289,414</u> | <u>288,061</u> |
| Liabilities | | |
| Benefits payable | 885 | 2,872 |
| Accounts payable | 19 | 19 |
| Total liabilities | <u>904</u> | <u>2,891</u> |
| Net position restricted for pensions | <u>\$ 288,510</u> | <u>\$ 285,170</u> |

See accompanying notes to basic financial statements.

SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM
Statement of Changes in Plan Net Position
Fiscal Year Ended June 30, 2017
With Comparative Totals as of June 30, 2016
(Amounts Expressed in Thousands)

| | <u>2017</u> | <u>2016</u> |
|--|-------------------|-------------------|
| Additions | | |
| Contributions: | | |
| Employer | \$ 8,645 | \$ 8,645 |
| Employees | 63 | 146 |
| Total contributions | <u>8,708</u> | <u>8,791</u> |
| Investment income: | | |
| From investment activities: | | |
| Net increase / (decrease) in fair value of investments | 17,997 | (908) |
| Interest | 4,639 | 5,236 |
| Dividends | 5,350 | 4,609 |
| Total investment income | <u>27,986</u> | <u>8,937</u> |
| Less investment expense: | | |
| Banking, interest, fiscal agent & other | 102 | 103 |
| Professional services | 1,081 | 1,035 |
| Total investment expense | <u>1,183</u> | <u>1,138</u> |
| Net income from investing activities | <u>26,803</u> | <u>7,799</u> |
| Total net investment income | <u>26,803</u> | <u>7,799</u> |
| Total net additions | <u>35,511</u> | <u>16,590</u> |
| Deductions | | |
| Benefits | 32,171 | 32,633 |
| Refunds of employee contributions | - | 50 |
| Total deductions | <u>32,171</u> | <u>32,683</u> |
| Net increase/(decrease) in plan net position | 3,340 | (16,093) |
| Net position restricted for pensions | | |
| Beginning of fiscal year | 285,170 | 301,263 |
| End of fiscal year | <u>\$ 288,510</u> | <u>\$ 285,170</u> |

See accompanying notes to basic financial statements.

SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM

A Component Unit of the City of Sacramento
 Notes to the Basic Financial Statements (Continued)
 Fiscal Year Ended June 30, 2017
 (Dollars in thousands, except as otherwise noted)

Note A – Plan Description

The City of Sacramento, California, (City) sponsors and administers a defined benefit contributory pension system known as the Sacramento City Employees' Retirement System (SCERS). The fiscal management of SCERS is vested in the five-member Administration, Investment, and Fiscal Management Board (Board), consisting of the City Manager, Director of Finance, City Treasurer and two public members who are appointed by the City Council. Because of this relationship with the City, SCERS is reported as a component unit of the City.

SCERS is a single-employer system and an integral part of the City. The accompanying financial statements are included as a pension trust fund in the basic financial statements of the City. The system covers all City employees hired before January 29, 1977 and is closed to new members. Employee contribution rates are generally frozen (with minor exceptions) and the City is responsible for any actuarially determined unfunded obligation of the plan. SCERS is comprised of the individual plans listed below. The City Charter establishes plan membership, contributions, and benefit provisions. Any changes must be approved by the electorate of the City.

1. Charter Section 399 Plan – This defined benefit plan was established effective January 1, 1977 to provide retirement, disability and death benefits. Active members contribute at a rate based upon entry age and type of employment.
2. Equal Shares Plan – This defined benefit plan was established July 1, 1970 to provide retirement, disability and death benefits to all City employees electing coverage at that date and to all employees who were hired from that date through January 1, 1977.
3. Charter Section 175 Plans – These defined benefits were established in 1953 and provide for retirement, disability and death benefits at a lower amount than the successor Equal Shares Plan.

Plan membership at June 30, 2017 consisted of the following:

| | Section 399 | Equal Shares | Section 175 | Total |
|--|----------------|-----------------|----------------|--------------|
| Inactive members or beneficiaries receiving benefits | 943 | 56 | 60 | 1,059 |
| Inactive members entitled to but not yet receiving benefit | 9 | | 1 | 10 |
| Active plan members | 16 | - | - | 16 |
| Total plan members | 968 | 56 | 61 | 1,085 |

Cost-of-Living Adjustment – This adjustment, established in 1969, provides for annual retirement benefit increases of up to 3% of normal benefits based on a corresponding rise in the consumer price index. Cost-of-living benefits are payable to retirees and beneficiaries of all of the above plans after one year of retirement. The cost-of-living adjustment was 2.8% for fiscal year 2017. Members contribute to this adjustment at a rate of 1% of their normal retirement contributions. The City is required to fund all costs in excess of members' contributions and investment earnings.

SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM

A Component Unit of the City of Sacramento
Notes to the Basic Financial Statements (Continued)
Fiscal Year Ended June 30, 2017
(Dollars in thousands, except as otherwise noted)

Note A – Plan Description (Continued)

SCERS reports the assets and activities of all plans in one trust fund. All assets accumulated for the payment of benefits may be used to pay benefits to any of the plan members or beneficiaries.

Since benefits fully vest after five years of service and admission to the plan was restricted in 1976 and closed in 1980, all accumulated benefits at June 30, 2017 are fully vested.

Since the plans included in SCERS are closed to new members, the number of active members in the system is declining. Member contributions have declined as members retire. During the fiscal year ended June 30, 2017 active member contributions ranged from 3% to 10% of payroll. At June 30, 2017, active members' accumulated contributions, including interest, totaled approximately \$4.2 million, respectively. For the fiscal year ended June 30, 2017, interest was credited to members' contributions at the rate of 7.75%. Members have an option to withdraw their accumulated contributions, including interest, upon termination of their employment with the City.

Note B – Summary of Significant Accounting Policies

Basis of Accounting

SCERS' financial statements are prepared using the accrual basis of accounting. Member contributions are recognized in the period in which the contributions are due. Employer contributions to each plan are recognized when due and the employer has made a formal commitment to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

Investments

SCERS' investments are recorded at fair value, except mortgage loans, which are recorded at amortized cost. Investments reported at fair value are based on quoted market prices. The mortgage loans are collateralized loans whose market value is unknown. Purchases and sales of investments are recorded on a trade date basis.

Administrative Costs

The City charter requires all costs of administration, excluding investment activity, to be paid by the City. These costs are, therefore, excluded from the accompanying financial statements.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Actual results could differ from those estimates.

SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM

A Component Unit of the City of Sacramento
Notes to the Basic Financial Statements (Continued)
Fiscal Year Ended June 30, 2017
(Dollars in thousands, except as otherwise noted)

Note C – Cash and Investments

Cash and Cash Equivalents

SCERS participates in the City of Sacramento's investment pool, which is not rated by a nationally recognized statistical rating organization. The City Treasurer is granted authority for managing the pool by City Charter, City Council ordinances and resolutions. The City Treasurer reports investment activity quarterly to the City Council and quarterly the investment policy is reaffirmed by the City Council. The pool is accounted for on an amortized cost basis during the year. The value of the pool shares that may be withdrawn at any time is determined on an amortized cost basis, which is different than the fair value of SCERS' position in the pool. Information regarding the investments within the City's pool, including the related risks, can be found in the City's Comprehensive Annual Financial Report (CAFR). The City's investment pool is not rated and has a weighted average maturity of 2.11 years as of June 30, 2017.

Investments

The City Charter vests the Board with the authority to administer and invest the funds of the System consistent with charter provisions. The Board is mandated to adopt general investment standards that the City Council shall either approve or disapprove. These standards are set forth in an Investment Policy document that is annually reviewed by the Board and approved by the City Council. The Investment Policy sets forth the type of investments the System may hold and directs the Board to determine how the System funds may be allocated to different general asset classes. The Board sets the asset allocations by resolution effective for each fiscal year. The Board and its investment managers are required to conform their investment practices to the terms of the Investment Policy and related Board resolutions.

On May 1, 2017, the Board adopted the following asset allocation policy to be implemented by June 30, 2017.

| <u>Asset Class</u> | <u>Target Allocation</u> |
|--------------------|--------------------------|
| Fixed Income | 35% |
| Large Cap Growth | 35% |
| Equity Income | 25% |
| International | <u>5%</u> |
| Total | 100% |

SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM

A Component Unit of the City of Sacramento
Notes to the Basic Financial Statements (Continued)
Fiscal Year Ended June 30, 2017
(Dollars in thousands, except as otherwise noted)

Note C – Cash and Investments (Continued)

Interest Rate Risk

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates. One of the ways that SCERS manages its exposure to interest rate risk is by purchasing a combination of shorter term and longer term investments and by timing cash flows from maturities so that a portion of the portfolio is maturing or coming close to maturing evenly over time as necessary to provide the cash flow and liquidity needed for operations.

Information about the sensitivity of the fair values of SCERS' investments to market interest rate fluctuations is provided by the following table that shows the distribution of SCERS' investments by maturity. The remaining maturity of the SCERS' investments included in the tables below is based on the stated maturity dates of the individual investments, except in the case of variable rate investments where the maturity date below is the next reset date. Variable rate securities are investments with terms that provide for the adjustment of interest rates on specified dates based on predefined mathematical formulas. The fair value of such investments can reasonably be expected to be affected at each interest rate reset date.

At June 30, 2017, SCERS' investments have maturities as follows:

| Investment Type | Remaining Maturity in Years | | | | | Total |
|------------------------------------|-----------------------------|-----------|-----------|-----------------------|-----------|------------|
| | No Maturity | Under 1 | 1-5 | Over 5/ 10 or less | Over 10 | |
| Cash and short-term investments: | | | | | | |
| City of Sacramento Investment Pool | \$ - | \$ 8,601 | \$ - | \$ - | \$ - | \$ 8,601 |
| Investments: | | | | | | |
| Corporate bonds/notes | - | 6,192 | 13,008 | 3,067 | 14,881 | 37,148 |
| Equities | 68,397 | - | - | - | - | 68,397 |
| Exchange traded funds | 117,852 | - | - | - | - | 117,852 |
| Mortgage loans | - | - | - | 1,732 | - | 1,732 |
| Municipal bonds | - | 964 | 1,531 | 2,520 | 47,887 | 52,902 |
| U.S. agency securities | - | - | 12 | 40 | 1,130 | 1,182 |
| Total Investments | 186,249 | 7,156 | 14,551 | 7,359 | 63,898 | 279,213 |
| Total Cash and Investments | \$ 186,249 | \$ 15,757 | \$ 14,551 | \$ 7,359 | \$ 63,898 | \$ 287,814 |

SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM

A Component Unit of the City of Sacramento
Notes to the Basic Financial Statements (Continued)
Fiscal Year Ended June 30, 2017
(Dollars in thousands, except as otherwise noted)

Note C – Cash and Investments (Continued)

Interest Rate Risk (Continued)

Investments in callable bonds are investments that, although having clearly defined maturities, allow for the issuer to redeem or call such bonds earlier than their respective maturity dates. The investor must then replace the called bonds with investments that may have lower yields than the original bonds.

The fair values of the callable bonds held at June 30, 2017 by investment type are as follows:

| <u>Investment Type</u> | <u>Total</u> |
|------------------------|--------------|
| Corporate bonds | \$ 17,792 |
| Municipal bonds | 19,701 |

Credit Risk

Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization. As of June 30, 2017, SCERS held a bond that is currently in default of the semi-annual interest payments. The bond issuer Lehman Brothers filed for Chapter 11 bankruptcy protection on September 15, 2008. The bond has a maturity date of December 29, 2099 and a fair value of \$156 as of June 30, 2017.

SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM

A Component Unit of the City of Sacramento
 Notes to the Basic Financial Statements (Continued)
 Fiscal Year Ended June 30, 2017
 (Dollars in thousands, except as otherwise noted)

Note C – Cash and Investments (Continued)

Interest Rate Risk (Continued)

At June 30, 2017, SCERS' investments and credit ratings are as follows:

| <u>Investment Type</u> | <u>S & P</u> | <u>Moody</u> | <u>Total</u> |
|--|------------------|--------------|-------------------|
| City of Sacramento Investment Pool | not rated | not rated | \$ 8,601 |
| Corporate bonds/notes | A | A | 15,905 |
| | AA | Aa | 5,173 |
| | BBB | A | 9,042 |
| | BBB | Baa | 6,872 |
| | not rated | withdrawn | 156 |
| Equities (exempt from disclosure) | N/A | N/A | 68,397 |
| Exchange traded funds (exempt from disclosure) | N/A | N/A | 117,852 |
| Mortgage loans | not rated | not rated | 1,732 |
| Municipal bonds | A | A | 6,382 |
| | A | Baa | 3,373 |
| | A | not rated | 5,646 |
| | AA | A | 8,113 |
| | AA | Aa | 19,788 |
| | AA | Aaa | 2,847 |
| | AA | not rated | 5,454 |
| | not rated | Aa | 1,299 |
| U.S. agency securities | N/A | N/A | 1,182 |
| Total Cash and Investments | | | <u>\$ 287,814</u> |

SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM

A Component Unit of the City of Sacramento
Notes to the Basic Financial Statements (Continued)
Fiscal Year Ended June 30, 2017
(Dollars in thousands, except as otherwise noted)

Note C – Cash and Investments (Continued)

Concentration of Credit Risk

As of June 30, 2017, SCERS had the following investments in one issuer exceeding 5% of plan net position or 5% of total investments excluding investments issued or explicitly guaranteed by the U.S. government:

| | |
|--|-----------|
| ishares Russell 1000 Value Index (ETF) | \$ 17,465 |
|--|-----------|

Money-weighted rate of return

For the year ended June 30, 2017, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense was 10.22%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Fair Value Measurement and Application

SCERS categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy are described as follows:

Level 1 – Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the SCERS has the ability to access.

Level 2 – Inputs to the valuation methodology include:

- Quoted prices for similar assets or liabilities in active markets;
- Quoted prices for identical or similar assets or liabilities in inactive markets;
- Inputs other than quoted prices that are observable for the asset or liability; and
- Inputs that are derived principally from or corroborated by observable market data by correlation or other means.

Level 3 – Inputs to the valuation methodology are unobservable and significant to the fair value measurement. Unobservable inputs reflect the SCERS' own assumptions about the inputs market participants would use in pricing the asset or liability (including assumptions about risk).

SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM

A Component Unit of the City of Sacramento
Notes to the Basic Financial Statements (Continued)
Fiscal Year Ended June 30, 2017
(Dollars in thousands, except as otherwise noted)

Note C – Cash and Investments (Continued)

Fair Value Measurement and Application (Continued)

Unobservable inputs are developed based on the best information available in the circumstances and may include SCERS' own data.

The asset's level within the hierarchy is based on the lowest level of input that is significant to the fair value measurement. Valuation techniques used, need to maximize the use of observable inputs and minimize the use of unobservable inputs. The determination of what constitutes observable requires judgment by the SCERS' management. SCERS management considers observable data to be that market data, which is readily available, regularly distributed or updated, reliable, and verifiable, not proprietary, and provided by multiple independent sources that are actively involved in the relevant market. The categorization of an investment within the hierarchy is based upon the relative observability of the inputs to its fair value measurement and does not necessarily correspond to SCERS management's perceived risk of that investment.

In instances where inputs used to measure fair value fall into different levels in the above fair value hierarchy, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation. The SCERS' assessment of the significance of particular inputs to these fair value measurements requires judgment and considers factors specific to each asset or liability.

SCERS' treasury pools' asset market prices are derived from closing bid prices as of the end of business day as supplied by Interactive Data Corporation. Where prices are not available from generally recognized sources, the securities are priced using a yield-based matrix system to arrive at an estimated market value. Prices that fall between data points are interpolated.

The following is a description of the valuation methods and assumptions used by SCERS to estimate the fair value of its investments:

- When available, quoted prices are used to determine fair value. When quoted prices in active markets are available, investments are classified within Level 1 of the fair value hierarchy.
- For investments classified within Level 2 of the fair value hierarchy, SCERS' custodians generally use a multi-dimensional relational model. Inputs to their pricing models are based on observable market inputs in active markets. The inputs to the pricing models are typically benchmark yields, reported trades, broker-dealer quotes, issuer spreads and benchmark securities, among others.
- SCERS held one type of investment that is measured using Level 3 inputs, Mortgage Loans. The Mortgage Loan is reported using the income approach. The value of the Mortgage Loan on the books is materially close to the Discounted Cash Flow, therefore the book value is reported.

SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM

A Component Unit of the City of Sacramento
Notes to the Basic Financial Statements (Continued)
Fiscal Year Ended June 30, 2017
(Dollars in thousands, except as otherwise noted)

Note C – Cash and Investments (Continued)

Fair Value Measurement and Application (Continued)

There have been no changes in the methods and assumptions used at June 30, 2017. The methods described may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. SCERS management believes its valuation methods are appropriate and consistent with other market participants. The use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

SCERS has the following recurring fair value measurements as of June 30, 2017:

| | Balance at June 30, 2017 | Fair Value Measurements on a Recurring Basis Using | | |
|--|--------------------------------|---|--|--|
| | | Quoted Prices in Active Markets for Identical Assets | Significant Other Observable Inputs (Level 2) | Significant Unobservable Inputs (Level 3) |
| <u>Investments by Fair Value Level</u> | | | | |
| Corporate bonds/notes | \$ 37,148 | \$ - | \$ 37,148 | \$ - |
| Equities | 68,397 | 68,397 | - | - |
| Exchange traded funds | 117,852 | 117,852 | - | - |
| Mortgage loans | 1,732 | - | - | 1,732 |
| Municipal bonds | 52,902 | - | 52,902 | - |
| U.S. agency securities | 1,182 | - | 1,182 | - |
| Total Investments by Fair Value Level | <u>279,213</u> | <u>\$ 186,249</u> | <u>\$ 91,232</u> | <u>\$ 1,732</u> |
| <u>Investments at Fair Value not Subject to Fair Value Hierarchy</u> | | | | |
| City of Sacramento Investment Pool | 8,601 | | | |
| Total Cash and Investments | <u>\$ 287,814</u> | | | |

Deposits and withdrawals in the City of Sacramento Investment Pool are made on the basis of \$1 and not fair value. Accordingly, the measurement of fair value of SCERS' investment in the investment pool is based on uncategorized inputs not defined as Level 1, Level 2, or Level 3.

SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM

A Component Unit of the City of Sacramento
Notes to the Basic Financial Statements (Continued)
Fiscal Year Ended June 30, 2017
(Dollars in thousands, except as otherwise noted)

Note D – Related Party Transactions

At June 30, 2017, SCERS held revenue bonds issued by the Sacramento City Financing Authority (SCFA) in the amount of \$5,646. SCFA is also a blended component unit of the City of Sacramento because its Board is comprised of all City Council members, and there is a financial benefit/burden relationship between the City and SCFA.

SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM

A Component Unit of the City of Sacramento
Notes to the Basic Financial Statements (Continued)
Fiscal Year Ended June 30, 2017
(Dollars in thousands, except as otherwise noted)

Note E – Funding Policy

The City's funding policy provides for actuarially determined contributions under the entry age normal method, which are discounted and adjusted annually to ensure that sufficient assets will be available to pay benefits when due. The City Council established and may amend the obligations of the plan members and the City to contribute to the plan. For the fiscal year ended June 30, 2017, the City's annual required and actual contribution was \$8.645 million.

Note F – Net Pension Liability of the City

The components of the net pension liability of the City at June 30, 2017 is shown below (dollars in millions). The total pension liability is based on an actuarial valuation as of June 30, 2017.

| | |
|--|----------------------|
| | June 30, 2017 |
| Total pension liability | \$ 336,878 |
| Plan fiduciary net position | (288,509) |
| City's net pension liability | <u>\$ 48,369</u> |
| | |
| Plan fiduciary net position as a percentage of the total pension liability | 85.6% |

Actuarial assumptions

The total pension liability was determined by an actuarial valuation as of June 30, 2017, using the following actuarial assumptions, applied to all periods included in the measurement.

| | |
|------------------|------------------------------------|
| Inflation | 2.75% |
| Salary increases | 2.75% CPI plus 0.5% merit, average |
| Discount rate | 6.50% |

Mortality rates for service retirements and beneficiaries were based on CalPERS 1997-2011 Mortality Table projected for future mortality improvement utilizing Society of Actuaries Scale MP-2016. Mortality rates for disability retirements were based on CalPERS 1997-2011 Mortality Table for non-work Disabled Retirees for Miscellaneous and CalPERS 1997-2011 Mortality Table for work-related Disabled Retirees for Safety. Both tables were projected for future mortality improvement utilizing Society of Actuaries Scale MP-2014.

SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM

A Component Unit of the City of Sacramento
Notes to the Basic Financial Statements (Continued)
Fiscal Year Ended June 30, 2017
(Dollars in thousands, except as otherwise noted)

Note F – Net Pension Liability of the City (Continued)

Discount rate

The Discount Rate was set equal to the long-term expected rate of return. The long-term expected rate of return was used since current assets, future City contributions, and future member contributions are projected to be sufficient to cover all future benefit payments and expenses. This “crossover test” was performed in accordance with the requirements specified in GASB Statement 67, including a projection that Plan’s funding policy will remain unchanged.

The 6.5% long-term expected rate of return was derived based on the inflation assumption of 2.75% and a long-term asset allocation of 65% equities and 35% fixed income. The geometric real rates of return were assumed to be 4.82% for equities and 1.47% for fixed income. The sensitivity of the discount rate to a 1% change is shown below.

Sensitivity of the net pension liability to changes in the discount rate

The following presents the net pension liability of the City, calculated using the discount rate of 6.5%, as well as what the City’s net pension liability would be if it were calculated using a discount rate that is 1 percentage-point lower (5.5%) or 1 percentage-point higher (7.5%) than the current rate:

| | 1% decrease (5.5%) | Current Discount Rate (6.5%) | 1% increase (7.5%) |
|------------------------------|-----------------------|---------------------------------|-----------------------|
| City’s net pension liability | \$76,333 | \$48,369 | \$24,224 |

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future. Actuarial calculations reflect a long-term perspective and are based on the benefits provided under the terms of the substantive plan in effect at the time of each valuation.

REQUIRED SUPPLEMENTARY INFORMATION

Sacramento City Employees' Retirement System
Schedule of Changes in Net Pension Liability and Related Ratios
Last Ten Fiscal Years

(in thousands)

| | <u>2017</u> | <u>2016</u> | <u>2015</u> | <u>2014</u> |
|---|-------------------|-------------------|-------------------|-------------------|
| Total pension liability | | | | |
| Service cost | \$ 96 | \$ 103 | \$ 131 | \$ 176 |
| Interest | 22,759 | 23,416 | 23,134 | 23,779 |
| Differences between expected and actual experience | (3,701) | (1,173) | (8,783) | - |
| Changes of assumptions | (16,246) | - | 23,117 | - |
| Benefit payments, including refunds of member contributions | (32,171) | (32,683) | (33,791) | (33,688) |
| Net change in total pension liability | (29,263) | (10,337) | 3,808 | (9,733) |
| Total pension liability -- beginning | 366,141 | 376,478 | 372,670 | 382,403 |
| Total pension liability -- ending (a) | <u>\$ 336,878</u> | <u>\$ 366,141</u> | <u>\$ 376,478</u> | <u>\$ 372,670</u> |
| Plan fiduciary net position | | | | |
| Contributions -- employer | \$ 8,645 | \$ 8,645 | \$ 9,183 | \$ 9,649 |
| Contributions -- member | 64 | 146 | 82 | 161 |
| Net investment income | 26,801 | 7,799 | 13,375 | 40,317 |
| Benefits payments, including refunds of member contributions | (32,171) | (32,683) | (33,791) | (33,688) |
| Net change in fiduciary net position | 3,339 | (16,093) | (11,151) | 16,439 |
| Plan fiduciary net position -- beginning | 285,170 | 301,263 | 312,414 | 295,975 |
| Plan fiduciary net position -- ending (b) | <u>\$ 288,509</u> | <u>\$ 285,170</u> | <u>\$ 301,263</u> | <u>\$ 312,414</u> |
| Net pension liability -- ending (a) - (b) | <u>\$ 48,369</u> | <u>\$ 80,971</u> | <u>\$ 75,215</u> | <u>\$ 60,256</u> |
| Plan fiduciary net position as a percentage of the total pension liability | 85.64% | 77.89% | 80.02% | 83.83% |
| Covered payroll | \$ 1,049 | \$ 1,020 | \$ 1,180 | \$ 2,279 |
| Net pension liability as a percentage of covered payroll | 4610.96% | 7938.33% | 6374.15% | 2643.97% |

Notes to Schedule:

The information in this schedule is prepared in accordance with GASB Statement No. 67, *Financial Reporting for Pension Plans*, which SCERS implemented for the fiscal year ended June 30, 2014. Data is not available for the years prior to implementation so only four fiscal years are presented.

For the fiscal year ended June 30, 2017, the calculation of the total pension liability was affected by the following changes in assumption:
 Inflation was reduced from 3% to 2.75%
 Salary scale was reduced from 3.50% to 3.25%
 Mortality improvement was changed to use Society of Actuaries Scale MP-2016

Sacramento City Employees' Retirement System
Schedule of Employer Contributions
Last Ten Fiscal Years

(in thousands)

| | Fiscal Year | | | | |
|--|-------------|----------|----------|----------|-----------|
| | 2017 | 2016 | 2015 | 2014 | 2013 |
| Actuarially determined contributions | \$ 8,645 | \$ 8,645 | \$ 9,183 | \$ 9,649 | \$ 10,573 |
| Contributions in relation to the actuarially determined contribution | 8,645 | 8,645 | 9,183 | 9,649 | 10,573 |
| Contribution deficiency (excess) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Covered payroll | \$ 1,049 | \$ 1,020 | \$ 1,180 | \$ 2,279 | \$ 2,279 |
| Contributions as a percentage of covered payroll | 824% | 848% | 778% | 423% | 464% |

Notes to Schedule

The actuarial valuation was rolled forward from 6/30/2013 to 6/30/2014. As a result, the covered employee payroll used to calculate the contributions as a percentage of covered employee payroll is the same for both years.

Valuation date:

Actuarially determined contributions are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported

Methods and assumptions used to determine contribution rates:

| | |
|---|--|
| Actuarial cost method | Entry age normal |
| Amortization method | Level dollar payments over 14 years, open period |
| Asset valuation method | 3 year smoothed market value |
| Inflation | 2.75% |
| Salary increases | 2.75% CPI plus 0.5% merit |
| Investment rate of return | 6.50% |
| Retirement age | Deferred vested members covered under Section 399 are assumed to retire at age 62; those covered under 175 are assumed to retire at age 65 |
| Covered payroll | CalPERS 1997-2007 Mortality Tables with Society of Actuaries Scale MP-2016 |
| Mortality | |
| Net pension liability as a percentage of employee payroll | |

Sacramento City Employees' Retirement System
Schedule of Employer Contributions
Last Ten Fiscal Years

(in thousands)

| | Fiscal Year | | | | |
|--|-------------|-----------|----------|----------|----------|
| | 2012 | 2011 | 2010 | 2009 | 2008 |
| Actuarially determined contributions | \$ 10,361 | \$ 10,547 | \$ 3,431 | \$ 3,159 | \$ 3,534 |
| Contributions in relation to the actuarially determined contribution | 10,361 | 10,547 | 3,431 | 3,159 | 3,534 |
| Contribution deficiency (excess) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Covered payroll | \$ 2,959 | \$ 4,132 | \$ 5,302 | \$ 5,749 | \$ 8,869 |
| Contributions as a percentage of covered payroll | 350% | 255% | 65% | 55% | 40% |

Notes to Schedule

The actuarial valuation was rolled forward from 6/30/2013 to 6/30/2014. As a result, the covered employee payroll used to calculate the contributions as a percentage of covered employee payroll is the same for both years.

Valuation date:

Actuarially determined contributions are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported

Methods and assumptions used to determine contribution rates:

| | |
|---------------------------|--|
| Actuarial cost method | Entry age normal |
| Amortization method | Level dollar payments over 14 years, open period |
| Asset valuation method | 3 year smoothed market value |
| Inflation | 2.75% |
| Salary increases | 2.75% CPI plus 0.5% merit |
| Investment rate of return | 6.50% |
| Retirement age | Deferred vested members covered under Section 399 are assumed to retire at age 62; those covered under 175 are assumed to retire at age 65 |
| Mortality | CalPERS 1997-2007 Mortality Tables with Society of Actuaries Scale MP-2016 |

Sacramento City Employees' Retirement System
Schedule of Investment Returns
Last Ten Fiscal Years

(in thousands)

| | <u>2017</u> | <u>2016</u> | <u>2015</u> | <u>2014</u> |
|---|-------------|-------------|-------------|-------------|
| Annual money weighted rate of return, net of investment expense | 10.22% | 3.05% | 4.86% | 14.56% |

Notes to Schedule:

The information in this schedule is prepared in accordance with GASB Statement No. 67, *Financial Reporting for Pension Plans*, which SCERS implemented for the fiscal year ended June 30, 2014. Data is not available for the years prior to implementation so only four fiscal years are presented.

ADDITIONAL INFORMATION

SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM
LISTING OF INVESTMENTS
JUNE 30, 2017

| Investments | Maturity Date | Quantity | Amortized Cost | Market Value |
|------------------------------------|------------------|-----------|-------------------|-------------------|
| US GOVERNMENT OBLIGATION | | | | |
| Gnma Pool #320296 | 3/15/2022 | 11,427 | \$ 11,220 | \$ 11,465 |
| Gnma Pool #329837 | 11/15/2022 | 16,064 | 15,818 | 17,104 |
| Gnma Pool #450066 | 12/15/2026 | 4,123 | 4,096 | 4,135 |
| Gnma Pool #439515 | 3/15/2027 | 18,125 | 17,774 | 19,052 |
| Gnma Pool #648348 | 10/15/2035 | 273,973 | 273,031 | 310,469 |
| Gnma Pool #550718 | 11/15/2035 | 648,020 | 630,604 | 712,077 |
| Gnma Pool #256393 | 9/1/2036 | 94,762 | 94,451 | 107,362 |
| Sub-total | | | 1,046,994 | 1,181,663 |
| CORPORATE BONDS | | | | |
| Apple Inc | 2/9/2027 | 3,000,000 | 3,000,000 | 3,066,990 |
| Chevron Corporation | 3/3/2019 | 2,000,000 | 2,114,196 | 2,106,380 |
| Goldman Sachs Group Inc | 4/1/2018 | 6,000,000 | 5,976,202 | 6,192,540 |
| Lehman Bros Hldg Inc Escrow | 12/29/2099 | 2,500,000 | 1,472,933 | 156,250 |
| Lloyds Tsb Bk Plc | 1/21/2021 | 5,000,000 | 5,136,918 | 5,622,350 |
| Metlife Inc | 8/15/2018 | 5,000,000 | 5,002,591 | 5,279,250 |
| Verizon Communications Inc | 3/15/2034 | 2,000,000 | 2,251,428 | 2,117,340 |
| Barclays Bank Plc | 2/17/2032 | 5,000,000 | 5,000,000 | 5,003,450 |
| Citigroup Inc | 7/22/2036 | 5,000,000 | 5,000,000 | 4,754,200 |
| Goldman Sachs Group Inc | 8/31/2036 | 3,000,000 | 2,982,036 | 2,849,520 |
| Sub-total | | | 37,936,305 | 37,148,270 |
| EQUITIES - LARGE CAP GROWTH | | | | |
| American Airls Grp Inc Com | | 13,000 | 511,388 | 654,160 |
| Apple Inc. | | 8,000 | 733,159 | 1,152,160 |
| Allergan Plc Shs | | 2,500 | 583,976 | 607,725 |
| Amgen Inc | | 3,500 | 558,206 | 602,805 |
| Amazon.com Inc. | | 1,400 | 692,714 | 1,355,200 |
| Arista Networks Inc Com | | 4,000 | 264,965 | 599,160 |
| Boeing Co Com | | 5,000 | 683,343 | 988,750 |
| Bank Of America Corp | | 25,000 | 376,489 | 606,500 |
| Blackrock Inc Com | | 1,500 | 524,317 | 633,615 |
| Bristol Myers Squibb Com | | 9,000 | 641,544 | 501,480 |
| Berkshire Hathaway Inc-Cl B | | 5,000 | 849,235 | 846,850 |
| Citigroup Inc | | 10,000 | 479,223 | 668,800 |
| Salesforce Com Inc Com | | 10,000 | 775,439 | 866,000 |
| Delta Air Lines Del Com New | | 11,000 | 430,971 | 591,140 |
| Facebook Inc Cl A | | 8,000 | 551,251 | 1,207,840 |
| First Data Corp | | 40,000 | 499,232 | 728,000 |
| General Electric Co | | 16,000 | 394,295 | 432,160 |
| Alphabet, Inc. Cl C Capital Stock | | 1,400 | 687,613 | 1,272,222 |
| Halliburton Co | | 16,000 | 846,298 | 683,360 |
| Home Depot Inc | | 4,000 | 305,355 | 613,600 |
| Helmerich & Payne Inc Com | | 10,000 | 649,904 | 543,400 |
| Illumina Inc | | 4,000 | 704,984 | 694,080 |
| Ingersoll-Rand Plc Shs | | 7,000 | 353,155 | 639,730 |
| Jpmorgan Chase & Co | | 6,000 | 295,908 | 548,400 |
| Southwest Airlines | | 10,000 | 380,312 | 621,400 |
| MasterCard Incorporated | | 6,000 | 546,914 | 728,700 |
| Medtronic Plc Shs | | 8,000 | 600,160 | 710,000 |
| Nike Inc Cl B | | 8,000 | 394,124 | 472,000 |
| Starbucks Corp | | 9,000 | 561,105 | 524,790 |
| At&t Inc | | 23,000 | 716,193 | 867,790 |
| Tjx Companies Inc | | 9,000 | 680,192 | 649,530 |
| Unitedhealth Group Inc | | 3,500 | 421,420 | 648,970 |
| U. S. Bancorp | | 10,000 | 354,486 | 519,200 |
| Visa Inc Com Cl A | | 7,000 | 323,594 | 656,460 |
| Verizon Communications Inc | | 15,000 | 481,694 | 669,900 |
| Sub-total | | | 18,853,158 | 25,105,877 |

EQUITIES - FIXED ALTERNATIVE EQUITIES

| | | | |
|------------------------------|--------|-------------------|-------------------|
| Altria Group Inc | 16,000 | 425,809 | 1,191,520 |
| At&t Inc | 22,000 | 958,159 | 830,060 |
| Bank Of America Corp | 60,000 | 916,178 | 1,455,600 |
| Berkshire Hathaway Inc-CI B | 6,500 | 958,911 | 1,100,905 |
| Blackrock Inc Com | 1,300 | 506,662 | 549,133 |
| Bristol Myers Squibb Com | 19,000 | 1,116,827 | 1,058,680 |
| Chevron Corporation | 12,000 | 1,346,621 | 1,251,960 |
| Cisco Sys Inc Com | 37,000 | 966,168 | 1,158,100 |
| Citigroup Inc | 19,000 | 877,806 | 1,270,720 |
| Dow Chem Co Com | 15,000 | 948,323 | 946,050 |
| Duke Energy Corp New Com New | 12,000 | 675,966 | 1,003,080 |
| Exxon Mobil Corporation | 12,000 | 1,002,596 | 968,760 |
| Ford Mtr Co | 85,000 | 1,062,147 | 951,150 |
| General Dynamics Corp | 5,000 | 919,872 | 990,500 |
| General Electric Co | 35,000 | 1,042,488 | 945,350 |
| General Mtrs Co Com | 27,000 | 870,518 | 943,110 |
| Helmerich & Payne Inc Com | 14,000 | 945,662 | 760,760 |
| Home Depot Inc | 7,000 | 1,029,646 | 1,073,800 |
| Honeywell | 7,000 | 867,264 | 933,030 |
| International Bus Mach | 10,000 | 1,501,523 | 1,538,300 |
| Johnson & Johnson | 8,000 | 1,019,936 | 1,058,320 |
| Jpmorgan Chase & Co | 14,000 | 944,392 | 1,279,600 |
| Lilly Eli & Co | 16,000 | 1,169,411 | 1,316,800 |
| Lockheed Martin Corp | 7,500 | 1,016,037 | 2,082,075 |
| Mcdonald's Corp | 6,000 | 578,758 | 918,960 |
| Merck & Co Inc (new) | 20,000 | 1,042,959 | 1,281,800 |
| Metlife Inc Com | 18,000 | 905,278 | 988,920 |
| Microsoft Corp | 18,000 | 891,622 | 1,240,740 |
| Pepsico Inc | 8,000 | 931,102 | 923,920 |
| Pfizer Inc | 38,000 | 933,969 | 1,276,420 |
| Philip Morris Intl Inc Com | 12,000 | 580,904 | 1,409,400 |
| Procter & Gamble Co | 14,000 | 1,123,825 | 1,220,100 |
| Prudential Finl Inc Com | 16,000 | 1,269,822 | 1,730,240 |
| Qualcomm Inc. | 20,000 | 1,095,598 | 1,104,400 |
| Raytheon Company | 5,500 | 856,565 | 888,140 |
| Union Pac Corp Com | 9,000 | 985,804 | 980,190 |
| United Technologies | 7,000 | 811,149 | 854,770 |
| Valero Energy Corp New Com | 15,000 | 1,032,347 | 1,011,900 |
| Verizon Communications Inc | 18,000 | 1,016,467 | 803,880 |
| Sub-total | | 37,145,090 | 43,291,143 |

EXCHANGE TRADED FUNDS

| | | | |
|--|---------|------------|------------|
| Vaneck Vectors Etf Tr Gold Miners Etf | 32,000 | 512,748 | 706,560 |
| Ishares Tr Nasdq Bio Indx | 6,000 | 1,638,772 | 1,860,480 |
| Ishares Us Home Cons Etf | 40,000 | 1,067,511 | 1,357,600 |
| Ishares Russell 2000 ETF | 23,000 | 2,556,226 | 3,241,160 |
| Ishares US Healthcare ETF | 24,000 | 1,425,374 | 3,990,240 |
| Ishares US Basic Materials ETF | 19,000 | 1,422,048 | 1,697,650 |
| Ishares Tr Transp Ave Idx | 12,000 | 1,444,982 | 2,064,840 |
| Ishares US Technology ETF | 20,000 | 1,463,683 | 2,794,400 |
| Spdr Series Trust Kbw Regn Bk Etf | 72,300 | 2,797,481 | 3,972,885 |
| Vaneck Vectors Etf Tr Semiconductor Et | 47,000 | 2,500,129 | 3,847,420 |
| Spdr Tr Unit Ser 1 | 31,000 | 6,729,521 | 7,495,800 |
| Vanguard Index Fds Reit Etf | 14,000 | 1,163,746 | 1,165,220 |
| Select Sector Spdr Tr Sbi Int-Energy | 68,000 | 4,195,137 | 4,414,560 |
| Select Sector Spdr Tr Sbi Int-Finl | 235,000 | 4,476,784 | 5,797,450 |
| Select Sector Spdr Tr Sbi Int-Inds | 76,000 | 4,114,951 | 5,176,360 |
| Select Sector Spdr Tr Technology | 129,000 | 5,592,000 | 7,058,880 |
| Select Sector Spdr Tr Sbi Cons Stpls | 158,000 | 7,654,908 | 8,680,520 |
| Select Sector Spdr Tr Rl Est Sel Sec | 41,000 | 1,311,590 | 1,320,200 |
| Select Sector Spdr Tr Sbi Int-Utills | 39,000 | 1,623,799 | 2,026,440 |
| Select Sector Spdr Tr Sbi Healthcare | 62,200 | 4,276,077 | 4,928,728 |
| Select Sector Spdr Tr Sbi Cons Discr | 53,000 | 3,016,025 | 4,750,390 |
| Spdr Series Trust S&p Retail Etf | 26,000 | 1,139,934 | 1,058,720 |
| Ishares MSCI Emerging Markets ETF | 19,000 | 775,039 | 786,410 |
| Ishares Msci Acwi Us Etf | 213,000 | 8,682,231 | 9,710,670 |
| Alps Etf Tr Alerian Mlp | 125,000 | 1,519,188 | 1,495,000 |
| Ishares Tr Russell 1000 Val | 150,000 | 15,800,302 | 17,464,500 |
| Ishares Tr U.S. Real Es Etf | 24,000 | 1,887,205 | 1,914,480 |
| Ishares Tr Us Pfd Stk Idx | 40,000 | 1,562,803 | 1,566,800 |
| Powershares Etf Tr Ii Pfd Portfolio | 100,000 | 1,497,793 | 1,511,000 |
| Select Sector Spdr Tr Sbi Int-Finl | 32,000 | 782,394 | 789,440 |
| Select Sector Spdr Tr Sbi Int-Utills | 18,000 | 887,302 | 935,280 |
| Spdr Series Trust S&p Bk Etf | 52,200 | 1,744,271 | 2,271,744 |

Sub-total**97,261,954****117,851,827****MUNICIPAL BONDS**

| | | | | |
|--|-----------|-----------|-----------|-----------|
| Bay Area Toll Auth Calif Toll Toll Brid | 4/1/2030 | 1,000,000 | 1,019,494 | 1,235,710 |
| California St Go Bds | 11/1/2026 | 2,000,000 | 2,000,000 | 2,520,440 |
| California St Go Bds | 3/1/2036 | 5,000,000 | 5,316,161 | 5,735,150 |
| Houston Tex Arprt Sys Rev Arprt Sys | 1/1/2028 | 5,000,000 | 4,606,594 | 6,056,550 |
| Millbrae Calif Sch Dist | 7/1/2020 | 500,000 | 534,161 | 539,065 |
| Moreland Calif Sch Dist | 8/1/2030 | 1,235,000 | 1,235,000 | 1,299,319 |
| Pasadena Calif Wtr Rev | 6/1/2031 | 3,000,000 | 2,958,848 | 3,115,020 |
| Pasadena Calif Wtr Rev | 6/1/2033 | 2,000,000 | 1,972,311 | 2,077,580 |
| Riverside Calif Pub Fing Auth Tax Alloc | 8/1/2017 | 325,000 | 324,773 | 325,507 |
| Riverside Cnty Calif Redev Agy Tax Alloc | 10/1/2037 | 3,000,000 | 3,013,458 | 3,372,810 |
| Sacramento Calif Pub Fing Auth | 4/1/2050 | 5,000,000 | 5,318,087 | 5,646,050 |
| San Diego Cnty Calif Pension O | 8/15/2017 | 635,000 | 638,587 | 638,632 |
| San Francisco Calif City & Cnt Tax Alloc | 8/1/2039 | 5,000,000 | 5,182,258 | 6,877,200 |
| Union City Calif Cmnty Redev A | 10/1/2030 | 250,000 | 245,033 | 261,320 |
| Univ Calif Regts Med Ctr Poole | 5/15/2031 | 2,350,000 | 2,482,772 | 2,972,891 |
| University Calif Revs For Prev | 5/15/2021 | 1,000,000 | 1,000,000 | 991,930 |
| University Calif Revs For Prev | 5/15/2031 | 5,755,000 | 6,413,422 | 6,390,179 |
| Vermont State Build America Bonds | 8/15/2027 | 2,700,000 | 2,670,718 | 2,847,393 |

Sub-total**46,931,680****52,902,746****MORTGAGE LOANS**

| | | | | |
|----------------------------|----------|-----------|-----------|-----------|
| Walgreens Drugs/Adahi, Inc | 5/1/2024 | 1,731,635 | 1,731,635 | 1,731,635 |
|----------------------------|----------|-----------|-----------|-----------|

Sub-total**1,731,635****1,731,635****Total****\$ 240,906,815 \$ 279,213,162**

APPENDIX A



BARTEL
ASSOCIATES, LLC

City of Sacramento

Sacramento City Employees' Retirement System

June 30, 2017

Actuarial Valuation

November 3, 2017

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

We are pleased to present the results of our June 30, 2017 actuarial valuation of the Sacramento City Employees' Retirement System (SCERS).

The purpose of this valuation is to:

- Determine the System's June 30, 2017 Funded Status, and
- Calculate the fiscal year 2018/19 Actuarially Determined Contribution (ADC).

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


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

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

Respectfully submitted,



Mary Elizabeth Redding, FSA, MAAA, EA
Vice President



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



Katherine Moore, ASA, MAAA
Associate Actuary

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SECTION 1

EXECUTIVE SUMMARY

Following are the valuation results. See notes following the table for a description of terms. Results from the June 30, 2016 valuation are provided for comparative purposes.

| | <i>-----amounts in \$000's-----</i> | | |
|---|-------------------------------------|--------------------------|---------------------|
| | June 30, 2016 | June 30, 2017 | % change |
| ■ Participant Counts | | | |
| • Actives | 16 | 16 | 0.0% |
| • Terminated Vesteds & Reciprocals | 12 | 10 | -16.7% |
| • Service Retirees | 641 | 608 | -5.1% |
| • Disableds | 140 | 124 | -11.4% |
| • Beneficiaries | 329 | 327 | -0.6% |
| • Total | 1,138 | 1,085 | -4.7% |
| ■ Actuarial Liabilities | | | |
| • Present Value of Projected Benefits | \$ 366,391 | \$ 337,099 | -8.0% |
| • Actuarial Accrued Liability | 366,141 | 336,878 | -8.0% |
| ■ Assets | | | |
| • Market Value of Assets | 285,170 | 288,509 | 1.2% |
| • Approximate Annual Rate of Return | 2.7% | 9.8% | |
| • Actuarial Value of Assets | 286,675 | 283,567 | -1.1% |
| • Approximate Annual Rate of Return | 6.2% | 7.4% | |
| ■ Plan Funded Status | | | |
| • Actuarial Accrued Liability | 366,141 | 336,878 | -8.0% |
| • Actuarial Value of Plan Assets | 286,675 | 283,567 | -1.1% |
| • Unfunded Actuarial Accrued Liability | 79,466 | 53,311 | -32.9% |
| • Funded Ratio | 78.3% | 84.2% | 7.5% |
| • Funded Ratio, Market Value Basis | 77.9% | 85.6% | 9.9% |
| ■ Maturity Ratios | | | |
| • Inactive AAL/Total AAL | 98.1% | 98.0% | |
| • Inactive Count/Total Count | 98.6% | 98.5% | |
| | 2017/18 | 2018/19 | % change |
| ■ Annual Cost¹ | 8,267 | 5,268 | -36.3% |
| ■ Annual Cost (% Proj. Plan Payroll)¹ | 1144.3% | 734.6% | |
| ■ Annual Cost (% Proj. City Payroll) | 2.8% | 1.7% | |

¹ See page 11 for details.

SECTION 1

EXECUTIVE SUMMARY

Purpose of Actuarial Valuation

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

Summary Information & Results

The Sacramento City Employees' Retirement System (SCERS) is a closed defined benefit pension plan. It has not accepted new members since January 28, 1977, and only 16 active members (out of a total plan membership of 1,085) remain.

Since the last valuation, the plan experienced overall gains on liabilities and market assets. Plan liabilities decreased more than expected, by \$3.3 million. This was mostly due to retirees and beneficiaries not living as long as expected. Market value return on assets was greater than expected, about 9.8% for the year, resulting in a gain of \$3.2 million on the actuarial (smoothed) value of assets.

Several assumptions were changed since the prior valuation.

- The mortality improvement projection was updated to the Society of Actuaries most recent table, MP-2016. This decreased liabilities \$9.7 million.
- The inflation assumption was reduced from 3.00% to 2.75%. Assumptions that are dependent on inflation such as salary scale and the Social Security wage base have a very small impact since there are so few actives remaining. The largest impact is the resulting decrease in the future expected cost of living adjustments (COLA) to retiree benefits, which will be no greater than inflation once existing COLA banks are exhausted. The reduction in plan liabilities is \$6.5 million.
- The discount rate remains at 6.5%, although various offsetting factors changed its development. The target asset allocation changed to 35% fixed income and 65% equities – a 5% smaller fixed income allocation than last year. Based on Bartel Associates' current capital market assumptions and assumed future inflation of 2.75%, we calculated the expected return after expenses to be 6.51%, at the 50th percentile confidence level. Based on this result, and current guidance recommending use of the 50th percentile confidence level, we recommend 6.50% as the discount rate. If a more conservative policy is desired, see the Sensitivity Analysis on page 14.

After the assumption changes, the July 1, 2017 total plan unfunded actuarial accrued liability (UAAL) is \$69.5 million, as compared to expected UAAL of \$76.1 million.

The plan's funded ratio on an actuarial value of assets basis is 84.2%, an increase from 78.3% in the prior valuation. The plan's funded ratio using market value of assets basis is 85.6%, an increase from 77.9% in the prior valuation.

The amortization period was changed from a rolling 14 year period to a rolling 13 year period beginning with this valuation, for the 2018/19 recommended contribution. The 3-year asset smoothing method provides some smoothing of contribution volatility. The City's contribution

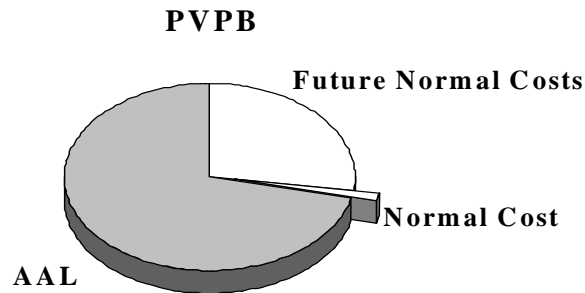
SECTION 1

EXECUTIVE SUMMARY

has decreased from \$8.267 million for fiscal year 2017/18 to \$5.268 million for fiscal year 2018/19. The prior valuation projected a 2018/19 contribution of \$7.920 million. The 2018/19 contribution is less than projected due to experience gains and gains from assumption changes, offset by the reduction in the amortization period.

Definitions

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



SECTION 2

LIABILITY INFORMATION & FUNDED STATUS

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

(amounts in \$000's)

| | June 30, 2016 | June 30, 2017 |
|--|---------------|---------------|
| Present Value of Projected Benefits | | |
| ■ Active Employees | \$ 7,342 | \$ 6,992 |
| ■ Vested Terminated & Reciprocal | 2,758 | 1,577 |
| ■ Service Retirees | 258,349 | 237,452 |
| ■ Disabled Participants | 41,692 | 36,722 |
| ■ Beneficiaries | 56,251 | 54,356 |
| ■ Total | 366,391 | 337,099 |

Actuarial Accrued Liability

| | | |
|----------------------------------|----------|----------|
| ■ Active Employees | \$ 7,092 | \$ 6,771 |
| ■ Vested Terminated & Reciprocal | 2,758 | 1,577 |
| ■ Service Retirees | 258,349 | 237,452 |
| ■ Disabled Participants | 41,692 | 36,722 |
| ■ Beneficiaries | 56,251 | 54,356 |
| ■ Total | 366,141 | 336,878 |

| | 2016/17 | 2017/18 |
|--|---------|---------|
| Normal Cost | | |
| ■ Employer Normal Cost (beginning of year) | \$ 42 | \$ 36 |

| | June 30, 2016 | June 30, 2017 |
|--|---------------|---------------|
| Plan Funded Status | | |
| ■ Total Actuarial Accrued Liability | \$ 366,141 | \$ 336,878 |
| ■ Actuarial Value of Plan Assets | 286,675 | 283,567 |
| ■ Unfunded Actuarial Accrued Liability | 79,466 | 53,311 |
| ■ Funded Ratio | 78.3% | 84.2% |
| ■ Market Value of Assets | 285,170 | 288,509 |
| ■ Funded Ratio – Market Value Basis | 77.9% | 85.6% |

SECTION 2

LIABILITY INFORMATION & FUNDED STATUS

Details of the June 30, 2017 Present Value of Benefits, Actuarial Accrued Liability and Employer Normal Cost by employee category:

(amounts in \$000's)

| | Safety | Miscellaneous | Total |
|--|--------|---------------|----------|
| Present Value of Projected Benefits | | | |
| ■ Active Employees | \$ - | \$ 6,992 | \$ 6,992 |
| ■ Vested Terminated & Reciprocals | - | 1,577 | 1,577 |
| ■ Service Retirees | 22,563 | 214,889 | 237,452 |
| ■ Disabled Participants | 16,326 | 20,395 | 36,722 |
| ■ Beneficiaries | 18,102 | 36,255 | 54,356 |
| ■ Total | 56,990 | 280,109 | 337,099 |

Actuarial Accrued Liability

| | | | |
|-----------------------------------|--------|---------|---------|
| ■ Active Employees | - | 6,771 | 6,771 |
| ■ Vested Terminated & Reciprocals | - | 1,577 | 1,577 |
| ■ Service Retirees | 22,563 | 214,889 | 237,452 |
| ■ Disabled Participants | 16,326 | 20,395 | 36,722 |
| ■ Beneficiaries | 18,102 | 36,255 | 54,356 |
| ■ Total | 56,990 | 279,887 | 336,878 |

| | Safety | Miscellaneous | Total |
|---|--------|---------------|-------|
| Normal Cost | | | |
| ■ Employer Normal Cost (on June 30, 2017) | \$ - | \$ 36 | \$ 36 |

SECTION 2

LIABILITY INFORMATION & FUNDED STATUS

Details of the June 30, 2017 Present Value of Benefits, Actuarial Accrued Liability and Employer Normal Cost by benefit section:

(amounts in \$000's)

| | Section 175 | Sections 302 & 399 | Total |
|--|-------------|-----------------------|----------|
| Present Value of Projected Benefits | | | |
| ■ Active Employees | \$ - | \$ 6,992 | \$ 6,992 |
| ■ Vested Terminated & Reciprocal | 70 | 1,508 | 1,577 |
| ■ Service Retirees | 6,505 | 230,946 | 237,452 |
| ■ Disabled Participants | 1,482 | 35,239 | 36,722 |
| ■ Beneficiaries | 4,592 | 49,764 | 54,356 |
| ■ Total | 12,650 | 324,450 | 337,099 |

Actuarial Accrued Liability

| | | | |
|----------------------------------|--------|---------|---------|
| ■ Active Employees | - | 6,771 | 6,771 |
| ■ Vested Terminated & Reciprocal | 70 | 1,508 | 1,577 |
| ■ Service Retirees | 6,505 | 230,946 | 237,452 |
| ■ Disabled Participants | 1,482 | 35,239 | 36,722 |
| ■ Beneficiaries | 4,592 | 49,764 | 54,356 |
| ■ Total | 12,650 | 324,228 | 336,878 |

Normal Cost

| | Section 175 | Sections 302 & 399 | Total |
|-------------------------------------|-------------|-----------------------|-------|
| ■ Employer Normal Cost (on 6/30/17) | \$ - | \$ 36 | \$ 36 |

SECTION 3

ASSET INFORMATION

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

Asset Reconciliation – Market Value of Assets

Following reconciles the June 30, 2015 through June 30, 2016 and the June 30, 2016 through June 30, 2017 market value of assets.

| | (amounts in \$000's) | |
|--------------------------------|----------------------|------------|
| | 2015/16 | 2016/17 |
| ■ Beginning of Year Balance: | \$ 301,263 | \$ 285,170 |
| • Member Contributions | \$ 146 ² | \$ 64 |
| • City Contributions | 8,645 | 8,645 |
| • Investment Income | 8,937 | 27,987 |
| ■ Total Additions | 17,728 | 36,696 |
| • Benefit Payments | 32,633 | 32,171 |
| • Member Refunds | 50 | - |
| • Investment Expenses | 1,138 | 1,186 |
| ■ Total Deductions | 33,821 | 33,357 |
| ■ Net Assets at End of Year | 285,170 | 288,509 |
| | | |
| ■ Approximate Return on Assets | 2.7% | 9.8% |

² Includes \$77,000 in member contributions for a deficit account buyback

SECTION 3

ASSET INFORMATION

Asset Allocation – Market Value of Assets

The July 1, 2017 trust asset allocation is provided by the City of Sacramento and based on an allocation strategy of 35% fixed income and 65% equity. Details are shown below.

(amounts in \$000's)

| | Market Value | Percentage |
|------------------------------------|----------------|------------|
| ■ Cash & Short Term Investments | \$ 8,601 | 3.0% |
| ■ Receivables | 1,600 | 0.5% |
| ■ Investments | | |
| • US Agencies | \$ 1,182 | 0.4% |
| • Corporate Bonds | 37,148 | 12.9% |
| • Equities | 124,268 | 43.1% |
| • Exchange Traded Funds | 61,981 | 21.5% |
| • Mortgage Loans | 52,903 | 18.3% |
| • Municipal Bonds | <u>1,731</u> | 0.6% |
| ■ Total Investments | <u>279,213</u> | |
| ■ Total Assets | 289,414 | |
| ■ Other Liabilities Payable | <u>(905)</u> | -0.3% |
| ■ Net Pension Benefit Trust Assets | 288,509 | 100.0% |

Target Allocation by Asset Class

The Administration, Investment and Fiscal Management Board of the Sacramento City Employees' Retirement System most recently adopted a new asset allocation May 1, 2017, as shown below. The fund is rebalanced each year.

| | Prior Allocation | Current Allocation |
|---------------------------|------------------|--------------------|
| ■ Fixed Bonds/Real Estate | <u>40%</u> | <u>35%</u> |
| Total Fixed | 40% | 35% |
| ■ Large Cap Growth | 35% | 35% |
| ■ Equity Income | 20% | 25% |
| ■ International Equities | <u>5%</u> | <u>5%</u> |
| Total Equity | <u>60%</u> | <u>65%</u> |
| Total Fixed & Equity | 100% | 100% |

SECTION 3

ASSET INFORMATION

Discount Rate Development

We recommend the following discount rate assumption for the June 30, 2017 valuation, based upon a 50% confidence level:

| Confidence Level | 50% | 55% | 60% |
|------------------------------------|--------------|--------------|--------------|
| ■ Inflation Adjusted Return | 6.81% | 6.48% | 6.14% |
| ■ Investment Expenses ³ | <u>0.30%</u> | <u>0.30%</u> | <u>0.30%</u> |
| ■ Net Return after Expenses | 6.51% | 6.18% | 5.84% |
| ■ Discount Rate Assumption | 6.50% | | |

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

SECTION 3

ASSET INFORMATION

Development of Actuarial Value of Assets

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

| | (amounts in \$000's) |
|---|----------------------|
| | 2016/17 |
| ■ Actuarial Value of Assets, Beginning of Year | \$ 286,675 |
| • Contributions | 8,709 |
| • Expected Earnings | 17,883 |
| • Benefit Payments | (32,171) |
| ■ Expected Actuarial Value of Assets, End of Year | 281,096 |
| ■ Market Value of Assets, End of Year | 288,509 |
| ■ Difference between MVA & Expected AVA | 7,413 |
| ■ Preliminary Actuarial Value of Assets, End of Year <i>(Expected AVA + 1/3 Difference)</i> | 283,567 |
| ■ Actuarial Value of Assets Corridor | |
| • Cap: 115% of Market Value | 331,785 |
| • Min: 85% of Market Value | 245,233 |
| ■ Actuarial Value of Assets, End of Year <i>(No greater than Cap, not less than Min)</i> | 283,567 |
| ■ Approximate Annual Rate of Return | 7.4% |

SECTION 4

CONTRIBUTION DEVELOPMENT

Actuarially Determined Contribution

Following is the development of the 2018/19 Actuarially Determined Contribution. The 2017/18 Actuarially Determined Contribution was calculated in the June 30, 2016 actuarial valuation and is shown for comparison.

| Contribution Year | (amounts in \$000's) | |
|---|----------------------|---------|
| | 2017/18 | 2018/19 |
| ■ Actuarially Determined Contribution | | |
| • Employer Normal Cost | \$ 30 | \$ 25 |
| • UAAL Amortization ⁴ | 8,236 | 5,243 |
| • Total Cost | 8,267 | 5,268 |
| ■ Projected Plan Payroll | 722 | 717 |
| ■ Actuarially Determined Contribution (as a percent of plan payroll) | | |
| • Employer Normal Cost | 4.2% | 3.5% |
| • UAAL Amortization | 1140.1% | 731.1% |
| • Total Contribution | 1144.3% | 734.6% |
| ■ Projected Total City Payroll | 295,629 | 306,862 |
| ■ Actuarially Determined Contribution (as a percent of total City payroll) | | |
| • Employer Normal Cost | 0.0% | 0.0% |
| • UAAL Amortization | 2.8% | 1.7% |
| • Total Contribution | 2.8% | 1.7% |

⁴ The Unfunded Actuarial Accrued Liability (UAAL) as of the beginning of the contribution year is being amortized as a level dollar amount over a 14 year period for 2017/18 and a rolling 13 year period for 2018/19. As the plan continues to mature, this amortization period will be monitored.

SECTION 5

SCHEDULE OF FUTURE CONTRIBUTIONS

Below are the historic and projected contributions and benefit payments. City contributions for years ending 6/30/2020 and later are estimated assuming 6/30/18 and subsequent market value of assets earn 6.5% and assuming the Actuarially Determined Contribution is contributed each year. These contributions are designed to achieve 100% funding of the system.

| Year Ending ⁵ | Member Contributions | City Contributions | Benefit Payments |
|--------------------------|----------------------|--------------------|------------------|
| 6/30/1991 | 1,704,000 | 6,017,000 | 20,400,000 |
| 6/30/1992 | 1,818,000 | 2,984,000 | 22,000,000 |
| 6/30/1993 | 1,672,000 | 857,000 | 23,042,000 |
| 6/30/1994 | 1,432,000 | 0 | 24,165,000 |
| 6/30/1995 | 1,320,000 | 0 | 24,565,000 |
| 6/30/1996 | 1,228,000 | 0 | 25,027,000 |
| 6/30/1997 | 1,080,000 | 0 | 23,274,000 |
| 6/30/1998 | 1,090,000 | 0 | 23,825,000 |
| 6/30/1999 | 1,136,000 | 0 | 24,249,000 |
| 6/30/2000 | 1,079,000 | 0 ⁶ | 24,901,000 |
| 6/30/2001 | 989,000 | 0 | 25,087,000 |
| 6/30/2002 | 1,011,000 | 0 | 25,588,000 |
| 6/30/2003 | 978,000 | 0 | 26,619,000 |
| 6/30/2004 | 1,056,000 | 0 | 26,772,000 |
| 6/30/2005 | 809,000 | 0 | 27,524,000 |
| 6/30/2006 | 789,000 | 0 | 28,749,000 |
| 6/30/2007 | 699,000 | 0 | 29,604,000 |
| 6/30/2008 | 596,000 | 3,534,000 | 29,896,000 |
| 6/30/2009 | 607,000 | 3,159,000 | 30,707,000 |
| 6/30/2010 | 377,000 | 3,431,000 | 31,719,000 |
| 6/30/2011 | 342,000 | 10,547,000 | 33,003,000 |
| 6/30/2012 | 332,000 | 10,361,000 | 33,057,000 |
| 6/30/2013 | 219,000 | 10,573,000 | 33,237,000 |
| 6/30/2014 | 161,000 | 9,649,000 | 33,688,000 |
| 6/30/2015 | 82,000 | 9,183,000 | 33,791,000 |
| 6/30/2016 | 69,000 | 8,645,000 | 32,683,000 |
| 6/30/2017 | 64,000 | 8,645,000 | 32,171,000 |
| 6/30/2018 | 66,000 | 8,267,000 | 31,967,000 |
| 6/30/2019 | 45,000 | 5,268,000 | 31,688,000 |
| 6/30/2020 | 30,000 | 4,851,000 | 31,293,000 |
| 6/30/2021 | 19,000 | 4,497,000 | 30,788,000 |
| 6/20/2022 | 12,000 | 4,192,000 | 30,191,000 |

⁵ Information prior to 6/30/2006 valuation is taken from prior actuary's valuation report. Member contributions and benefit payments for years ending 6/30/2018 and later are estimated.

⁶ Shown as a negative 1.367 million by prior actuary.

SECTION 6

ACTUARIAL (GAIN)/LOSS ANALYSIS

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

(amounts in \$000's)

| | Actuarial Accrued Liability (Gain)/Loss | Actuarial Value of Assets Gain/(Loss) | Unfunded Actuarial Accrued Liability (Gain)/Loss |
|--|--|--|--|
| ■ June 30, 2016 Actual Value | \$ 366,141 | \$ 286,675 | \$ 79,466 |
| ■ June 30, 2017 Expected Value | 356,431 | 280,352 | 76,079 |
| ■ Demographic (Gain)/Loss ⁷ | (3,307) | | |
| ■ Investment Gain | | 2,905 | |
| ■ Contributions greater than expected | | 310 | |
| ■ Total (Gain)/Loss | | | (6,522) |
| ■ June 30, 2016 Prior to Changes in Assumptions | 353,124 | 283,567 | 69,557 |
| ■ Change in Mortality Improvement Assumption | (9,743) | | |
| ■ Change in Inflation Assumption/ Decrease in Future Retiree COLA | (6,503) | | |
| ■ Total (Gain)/Loss from Assumption Changes | | | (16,246) |
| ■ June 30, 2017 Actual Value | 336,878 | 283,567 | 53,311 |

⁷ Primarily due to more retiree and beneficiary deaths than expected.

SECTION 7

SENSITIVITY ANALYSIS

The Plan's June 30, 2017 funded status and 2018/19 fiscal year contribution are shown below at 5.5%, 6.0%, 6.5% and 7.5% discount rates.

| Discount Rate | (amounts in \$000's) | | | |
|--|----------------------|----------------|----------------|----------------|
| | 5.5% | 6.0% | 6.5% | 7.5% |
| ■ Present Value of Projected Benefits | \$ 365,137 | \$ 351,044 | \$ 337,099 | \$ 312,901 |
| ■ Funded Status | | | | |
| • Actuarial Accrued Liability | 364,842 | 350,789 | 336,878 | 312,733 |
| • Actuarial Value of Assets | <u>283,567</u> | <u>283,567</u> | <u>283,567</u> | <u>283,567</u> |
| • Unfunded Actuarial Accrued Liability | 81,275 | 67,222 | 53,311 | 29,166 |
| ■ Funded Ratio | 77.7% | 80.8% | 84.2% | 90.7% |
| ■ 2018/19 Actuarially Determined Contribution | | | | |
| • Employer Normal Cost | 45 | 34 | 25 | 11 |
| • UAAL Amortization ⁸ | <u>8,072</u> | <u>6,699</u> | <u>5,243</u> | <u>2,496</u> |
| • Total Contribution | 8,117 | 6,733 | 5,268 | 2,507 |
| • Total Employer Contribution (as a percent of Plan payroll) | 1131.9% | 938.9% | 734.6% | 349.5% |
| • Total Employer Contribution (as a percent of total City payroll) | 2.6% | 2.2% | 1.7% | 0.8% |

The Plan's 2018/19 fiscal year contribution would increase if the amortization period of the Unfunded Actuarial Accrued Liability were shorter. Shown below are results based on the current 13-year period, as well as for 14, 12 and 10 year periods.

| Amortization Years | (amounts in \$000's) | | | |
|--|----------------------|--------------|--------------|--------------|
| | 14 | 13 | 12 | 10 |
| ■ 2018/19 Actuarially Determined Contribution | | | | |
| • Employer Normal Cost | \$ 25 | \$ 25 | \$ 25 | \$ 25 |
| • UAAL Amortization | <u>5,002</u> | <u>5,243</u> | <u>5,526</u> | <u>6,272</u> |
| • Total Employer Contribution | 5,027 | 5,268 | 5,551 | 6,297 |
| • Total Employer Contribution (as a percent of Plan payroll) | 701.0% | 734.6% | 774.2% | 878.1% |
| • Total Employer Contribution (as a percent of total City payroll) | 1.6% | 1.7% | 1.8% | 2.1% |

⁸ 13 year period

SECTION 8

HEADCOUNT AND BENEFIT PAYMENT PROJECTION

Headcount and Benefit Payment Projection

| Fiscal Year Ending June 30, | Active Count | Term Vested Count | Retiree Count | Benefit Payments (000's) |
|--------------------------------|-----------------|----------------------|------------------|-----------------------------|
| 2018 | 16 | 10 | 1,059 | \$ 31,967 |
| 2019 | 11 | 10 | 1,032 | 31,688 |
| 2020 | 7 | 10 | 1,002 | 31,293 |
| 2021 | 4 | 10 | 968 | 30,788 |
| 2022 | 2 | 10 | 932 | 30,191 |
| 2023 | 2 | 10 | 894 | 29,544 |
| 2024 | 1 | 10 | 856 | 28,830 |
| 2025 | 1 | 10 | 817 | 28,069 |
| 2026 | 0 | 10 | 778 | 27,265 |
| 2027 | 0 | 10 | 739 | 26,427 |
| 2028 | 0 | 10 | 701 | 25,555 |
| 2029 | 0 | 9 | 663 | 24,658 |
| 2030 | 0 | 9 | 625 | 23,735 |
| 2031 | 0 | 9 | 588 | 22,788 |
| 2032 | 0 | 9 | 552 | 21,818 |
| 2033 | 0 | 9 | 516 | 20,825 |
| 2034 | 0 | 8 | 481 | 19,810 |
| 2035 | 0 | 8 | 447 | 18,774 |
| 2036 | 0 | 8 | 414 | 17,719 |
| 2037 | 0 | 8 | 382 | 16,647 |
| 2038 | 0 | 7 | 351 | 15,562 |
| 2039 | 0 | 7 | 320 | 14,469 |
| 2040 | 0 | 6 | 291 | 13,375 |
| 2041 | 0 | 6 | 263 | 12,286 |
| 2042 | 0 | 5 | 236 | 11,212 |
| 2043 | 0 | 5 | 211 | 10,161 |
| 2044 | 0 | 4 | 187 | 9,140 |
| 2045 | 0 | 4 | 165 | 8,159 |
| 2046 | 0 | 3 | 144 | 7,224 |
| 2047 | 0 | 3 | 125 | 6,344 |

SECTION 8

HEADCOUNT AND BENEFIT PAYMENT PROJECTION

| Fiscal Year Ending June 30, | Active Count | Term Vested Count | Retiree Count | Benefit Payments (000's) |
|--------------------------------|-----------------|----------------------|------------------|-----------------------------|
| 2048 | 0 | 3 | 107 | \$ 5,524 |
| 2049 | 0 | 2 | 92 | 4,766 |
| 2050 | 0 | 2 | 77 | 4,074 |
| 2051 | 0 | 1 | 65 | 3,451 |
| 2052 | 0 | 1 | 54 | 2,898 |
| 2053 | 0 | 1 | 44 | 2,413 |
| 2054 | 0 | 1 | 36 | 1,995 |
| 2055 | 0 | 0 | 30 | 1,640 |
| 2056 | 0 | 0 | 24 | 1,341 |
| 2057 | 0 | 0 | 19 | 1,094 |
| 2058 | 0 | 0 | 15 | 892 |
| 2059 | 0 | 0 | 12 | 731 |
| 2060 | 0 | 0 | 10 | 604 |
| 2061 | 0 | 0 | 8 | 507 |
| 2062 | 0 | 0 | 6 | 434 |
| 2063 | 0 | 0 | 5 | 380 |
| 2064 | 0 | 0 | 4 | 339 |
| 2065 | 0 | 0 | 3 | 308 |
| 2066 | 0 | 0 | 3 | 283 |
| 2067 | 0 | 0 | 2 | 263 |

SECTION 9 PLAN PROVISIONS

A. Plan Effective Date

Originally established effective April 1, 1935.

B. Plan Year

July 1 to June 30.

C. Participation

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

D. Eligibility to Retire

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

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

E. Vesting

100% vesting with five years of participation.

F. Average Monthly Compensation

Average monthly salary for the 36 months prior to termination.

G. Employee Contributions

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

H. Service Retirement Benefit

Section 175:

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

Sections 302 and 399:

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

Benefit Factors at sample ages:

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

SECTION 9 PLAN PROVISIONS

I. Vested Termination Benefit

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

J. Non-Industrial (Ordinary) Disability Benefit

Eligibility is ten years of service.

Section 175:

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

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

Sections 302 and 399:

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

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

K. Industrial Disability Benefit

Sections 302 and 399:

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

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

L. Death Benefit – Pre Retirement Eligibility

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

M. Death Benefit – Post Retirement Eligibility

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

N. Death Benefit – Post Retirement Death

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

SECTION 9 PLAN PROVISIONS

O. Social Security Reduction at age 62

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

P. Reduction Account

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

Q. Cost of Living

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

R. Benefit Forms

Section 175:

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

Section 302 and 399:

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

SECTION 10

METHODS AND ASSUMPTIONS

Actuarial Methods

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

The current unfunded AAL is amortized over a 13 year rolling period as a level dollar amount. Because the plan is closed the amortization period should be regularly reviewed. The Board has regularly reduced the amortization period in the recent past. Under current Board policy, when the average future life expectancy of the plan participants drops below 5 years, the amortization period will be reduced to no more than 5 years.

Plan funded status based on excess of

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

The contribution generated by the current valuation will be payable for the City's fiscal year beginning one year later (2018/19). The June 30, 2016 valuation generated a contribution for fiscal year 2017/18.

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

Data

The City provided participant data as of 7/1/2017. We reviewed the data, but did not perform an audit.

Basis for Assumptions

Mortality assumptions are based on CalPERS 1997-2011 experience study. Mortality improvement is the Society of Actuaries Scale MP-2016. Inflation is based on our estimate for the plan's very long time horizon.

SECTION 10 METHODS AND ASSUMPTIONS

Actuarial Assumptions

Assumptions used in the valuation are as follows:

- **Discount Rate**
6.50% net of investment expenses⁹, based on a 50% confidence level

- **Inflation**
2.75%
Prior valuation: 3.00%

- **Salary Scale**
2.75% CPI
0.50% Merit
Prior valuation: 3.00% for CPI and 0.50% for merit.

- **Social Security Wage Base**
3.00%
Prior valuation: 3.25%.

- **Termination**
None assumed. All active employees are retirement-eligible.

- **Retirement**
Rates vary based on age. Sample rates follow:

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

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

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

⁹ Administrative expenses are not paid from plan assets.

SECTION 10

METHODS AND ASSUMPTIONS

■ **Healthy Mortality**

CalPERS 1997-2011 Pre-Retirement Mortality table for males and females and CalPERS 1997-2011 Post-Retirement Mortality table for males and females. Sample rates are as follows:

| <u>Age</u> | <u>Pre-Retirement</u> | | <u>Post-Retirement</u> | |
|------------|-----------------------|---------------|------------------------|---------------|
| | <u>Male</u> | <u>Female</u> | <u>Male</u> | <u>Female</u> |
| 50 | 0.16% | 0.11% | 0.53% | 0.49% |
| 60 | 0.35% | 0.22% | 0.82% | 0.53% |
| 70 | 0.71% | 0.47% | 1.77% | 1.26% |
| 80 | 1.34% | 1.04% | 5.28% | 3.69% |
| 90 | n/a | n/a | 16.19% | 12.34% |
| 100 | n/a | n/a | 34.55% | 31.88% |

■ **Post-Retirement Disabled Mortality**

For Miscellaneous retirees, CalPERS 1997-2011 Non-Work-Related Disability table for males and females. For Safety retirees, CalPERS 1997-2011 Work-Related Disability table for males and females. Sample rates are as follows:

| <u>Age</u> | <u>Non-Work-Related</u> | | <u>Work-Related</u> | |
|------------|-------------------------|---------------|---------------------|---------------|
| | <u>Male</u> | <u>Female</u> | <u>Male</u> | <u>Female</u> |
| 50 | 1.78% | 1.23% | 0.53% | 0.49% |
| 60 | 2.63% | 1.51% | 0.87% | 0.63% |
| 70 | 3.89% | 2.81% | 2.21% | 1.78% |
| 80 | 8.23% | 6.02% | 6.63% | 4.98% |
| 90 | 18.47% | 16.08% | 16.19% | 12.34% |
| 100 | 34.55% | 31.88% | 34.55% | 31.88% |

■ **Mortality Improvement Projection**

Mortality projected fully generational with Society of Actuaries Scale MP-2016.

Prior valuation used mortality projected fully generational with Society of Actuaries Scale MP-2014 modified to converge to ultimate improvement rates in 2022.

■ **Social Security Offset**

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

■ **Marriage**

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

SECTION 10

METHODS AND ASSUMPTIONS

- **Retirement Age**

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

- **Reciprocal Members**

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

SECTION 11 PARTICIPANT DATA

Data Summary

Following summarizes participant demographic information for the June 30, 2016 and June 30, 2017 actuarial valuations.

| | June 30, 2016 | June 30, 2017 |
|--|---------------|---------------|
| ■ Participant Counts | | |
| • Actives | 16 | 16 |
| • Terminated Vesteds | 9 | 7 |
| • Reciprocals | 3 | 3 |
| • Service Retirees | 641 | 608 |
| • Disableds | 140 | 124 |
| • Beneficiaries ¹⁰ | 329 | 327 |
| • Total | 1,138 | 1,085 |
| ■ Actives | | |
| • Average Age | 62.2 | 63.2 |
| • Average Service | 33.9 | 34.9 |
| • Salary | | |
| > Total | \$ 1,019,832 | \$ 1,049,044 |
| > Average | 63,740 | 65,565 |
| • Overall City Payroll | 275,973,000 | 287,848,000 |
| ■ Terminated Vesteds & Reciprocals | | |
| • Average Age | 65.9 | 67.0 |
| ■ Retirees, Disableds & Beneficiaries | | |
| • Average Age | 77.5 | 77.8 |
| • Average Monthly Benefit | \$ 2,463 | \$ 2,537 |
| • Life expectancy | 12.9 | 12.3 |

¹⁰ The June 30, 2017 valuation includes one former spouse of a deceased retiree whose eligibility for benefits is under review by the City Attorney. The valuation assumes the former spouse's benefit is 50% of the retiree's July 1, 2016 monthly benefit increased with 3% COLA.

SECTION 11 PARTICIPANT DATA

June 30, 2017 Participant Data

Following summarizes participant demographic information for the June 30, 2017 actuarial valuation, broken out by employee category and benefit section.

| | Safety | | Miscellaneous | | Total |
|---|-------------|-------------------|---------------|-------------------|-----------|
| | Section 175 | Section 302 & 399 | Section 175 | Section 302 & 399 | |
| ■ Actives | | | | | |
| • Count | - | - | - | 16 | 16 |
| • Average Age | n/a | n/a | n/a | 63.2 | 63.2 |
| • Average Service | n/a | n/a | n/a | 34.9 | 34.9 |
| • Salary | | | | | |
| ➤ Average | \$ - | \$ - | \$ - | \$ 65,565 | \$ 65,565 |
| ➤ Total (000's) | - | - | - | 1,049 | 1,049 |
| ■ Vested Terms & Reciprocals | | | | | |
| • Count | - | - | 1 | 9 | 10 |
| • Average Age | n/a | n/a | 66.6 | 67.1 | 67.0 |
| ■ All Inactives | | | | | |
| • Count | 25 | 178 | 35 | 821 | 1,059 |
| • Average Age | 84.8 | 82.4 | 82.2 | 76.4 | 77.8 |
| • Avg. Monthly Benefit | \$ 2,503 | \$ 3,140 | \$ 1,676 | \$ 2,445 | \$ 2,537 |
| ■ Service Retirees | | | | | |
| • Count | 9 | 56 | 16 | 527 | 608 |
| • Average Age | 87.4 | 87.7 | 81.4 | 75.6 | 77.0 |
| • Average Retirement Age | 54.7 | 55.2 | 63.4 | 59.6 | 59.2 |
| • Avg. Monthly Benefit | \$ 3,009 | \$ 4,807 | \$ 2,113 | \$ 2,923 | \$ 3,077 |
| ■ Disabled Retirees | | | | | |
| • Count | 4 | 42 | 4 | 74 | 124 |
| • Average Age | 88.8 | 75.3 | 81.3 | 73.7 | 75.0 |
| • Average Retirement Age | 51.4 | 41.6 | 50.0 | 48.5 | 46.3 |
| • Avg. Monthly Benefit | \$ 2,897 | \$ 2,821 | \$ 1,291 | \$ 2,052 | \$ 2,315 |
| ■ Beneficiaries | | | | | |
| • Count | 12 | 80 | 15 | 220 | 327 |
| • Average Age | 81.6 | 82.5 | 83.3 | 79.2 | 80.3 |
| • Avg. Monthly Benefit | \$ 1,992 | \$ 2,140 | \$ 1,313 | \$ 1,430 | \$ 1,619 |

SECTION 11 PARTICIPANT DATA

Data Reconciliation 6/30/2016 to 6/30/2017

| | Actives | Terminated | | Receiving Payments | | | Total |
|------------------------|---------|------------|------------|--------------------|----------|----------|-------|
| | | Vested | Reciprocal | Disabled | Benefic. | Retirees | |
| ■ June 30, 2016 | 16 | 9 | 3 | 140 | 329 | 641 | 1,138 |
| • New Hires | - | - | - | - | - | - | - |
| • Disabled | - | - | - | - | - | - | - |
| • Terminated | - | - | - | - | - | - | - |
| • Deceased | - | - | - | (16) | (31) | (35) | (82) |
| • New Beneficiaries | - | - | - | - | 29 | - | 29 |
| • Retired | - | (2) | - | - | - | 2 | - |
| • Adjustment/Cash Out | - | - | - | - | - | - | - |
| ■ June 30, 2017 | 16 | 7 | 3 | 124 | 327 | 608 | 1,085 |

SECTION 11 PARTICIPANT DATA

Active Age/Service

Following are active counts by age and service groups:

| Age | Service | | | | | | | Total |
|----------------------|---------|-----|-------|-------|-------|-------|-----------|-------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30 & Over | |
| Under 25 | - | - | - | - | - | - | - | - |
| 25-29 | - | - | - | - | - | - | - | - |
| 30-34 | - | - | - | - | - | - | - | - |
| 35-39 | - | - | - | - | - | - | - | - |
| 40-44 | - | - | - | - | - | - | - | - |
| 45-49 | - | - | - | - | - | - | - | - |
| 50-54 | - | - | - | - | - | - | - | - |
| 55-59 | - | - | - | - | - | - | 1 | 1 |
| 60-64 | - | - | - | 1 | - | 2 | 9 | 12 |
| 65 & Over | - | - | - | - | - | 1 | 2 | 3 |
| Total | - | - | - | 1 | - | 3 | 12 | 16 |

SECTION 11 PARTICIPANT DATA

Inactives Age/Status/Monthly Benefit

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

Safety

| Age | | Service Retirees | Disability Retirees | Beneficiaries | Total |
|----------------------|--------------|------------------|---------------------|---------------|-------|
| Under 50 | Count | - | - | - | - |
| | Avg. Benefit | - | - | - | - |
| 50-54 | Count | - | - | - | - |
| | Avg. Benefit | - | - | - | - |
| 55-59 | Count | - | - | - | - |
| | Avg. Benefit | - | - | - | - |
| 60-64 | Count | - | - | - | - |
| | Avg. Benefit | - | - | - | - |
| 65-69 | Count | - | 4 | 6 | 10 |
| | Avg. Benefit | - | 2,966 | 1,828 | 2,283 |
| 70-74 | Count | 3 | 18 | 11 | 32 |
| | Avg. Benefit | 3,838 | 2,723 | 1,995 | 2,577 |
| 75-79 | Count | 3 | 11 | 17 | 31 |
| | Avg. Benefit | 2,842 | 2,712 | 2,271 | 2,483 |
| 80-84 | Count | 7 | 8 | 19 | 34 |
| | Avg. Benefit | 4,077 | 2,979 | 2,057 | 2,689 |
| 85 & Over | Count | 52 | 5 | 39 | 96 |
| | Avg. Benefit | 4,764 | 3,103 | 2,167 | 3,622 |
| Total | Count | 65 | 46 | 92 | 203 |
| | Avg. Benefit | 4,558 | 2,827 | 2,121 | 3,061 |

SECTION 11 PARTICIPANT DATA

Miscellaneous

| Age | | Service Retirees | Disability Retirees | Beneficiaries | Total |
|----------------------|---------------------|------------------|---------------------|---------------|-------|
| Under 50 | Count | - | - | 1 | 1 |
| | Avg. Benefit | - | - | 650 | 650 |
| 50-54 | Count | - | - | 3 | 3 |
| | Avg. Benefit | - | - | 1,431 | 1,431 |
| 55-59 | Count | 1 | 1 | 4 | 6 |
| | Avg. Benefit | 3,629 | 2,995 | 860 | 1,678 |
| 60-64 | Count | 41 | 13 | 16 | 70 |
| | Avg. Benefit | 3,262 | 2,075 | 1,218 | 2,574 |
| 65-69 | Count | 108 | 16 | 27 | 151 |
| | Avg. Benefit | 2,962 | 2,387 | 1,550 | 2,649 |
| 70-74 | Count | 131 | 12 | 32 | 175 |
| | Avg. Benefit | 2,940 | 1,763 | 1,579 | 2,610 |
| 75-79 | Count | 98 | 15 | 32 | 145 |
| | Avg. Benefit | 2,834 | 2,227 | 1,475 | 2,472 |
| 80-84 | Count | 75 | 11 | 40 | 126 |
| | Avg. Benefit | 2,931 | 1,602 | 1,738 | 2,436 |
| 85 & Over | Count | 89 | 10 | 80 | 179 |
| | Avg. Benefit | 2,632 | 1,665 | 1,217 | 1,946 |
| Total | Count | 543 | 78 | 235 | 856 |
| | Avg. Benefit | 2,899 | 2,013 | 1,423 | 2,413 |



BARTEL
ASSOCIATES, LLC

City of Sacramento

Sacramento City Employees' Retirement System

June 30, 2017

GASBS 67 & 68 Reporting

November 3, 2017



GASBS 67 & 68 REPORTING

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

This report presents reporting and disclosure information for the Sacramento City Employees' Retirement System (SCERS) for the fiscal year ending June 30, 2017 to assist the City in preparing financial statement information in accordance with Governmental Accounting Standards Board Statements Nos. 67 and 68 (GASBS 67 and 68).

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

This report is based on our June 30, 2017 actuarial valuation of the System and our report dated October 2017 which contains complete details of that valuation and is to be considered a part of this report.

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

Respectfully submitted,

A handwritten signature in cursive script that reads "Mary Elizabeth Redding".

Mary Elizabeth Redding, FSA, MAAA, EA
Vice President

A handwritten signature in cursive script that reads "Deanna D. Van Valer".

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

A handwritten signature in cursive script that reads "Katherine Moore".

Katherine Moore, ASA, MAAA
Associate Actuary

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SECTION 1

GASBS 67 & 68 APPLICABLE DATES

Applicable Dates and Periods

| Fiscal Year End | June 30, 2017 | |
|---|---------------|----------------------------------|
| Reporting Standard | GASBS 67 | GASBS 68 |
| ■ Reporting date ¹ | June 30, 2017 | June 30, 2017 |
| ■ Reporting period | FY 2017 | FY 2017 |
| ■ Measurement date ² | N/A | June 30, 2017 |
| ■ Measurement period | N/A | July 1, 2016 to June 30, 2017 |
| ■ Actuarial valuation date ³ | June 30, 2017 | June 30, 2017 |

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

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

³ Within 30 months of fiscal year end.

SECTION 2

GASBS 67 AND 68 NOTE DISCLOSURES

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

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

| | Fiscal Year Ending | |
|---------------------------------|--------------------|----------------|
| | 6/30/17 | 6/30/16 |
| ■ Total pension liability (TPL) | \$336,878 | \$366,141 |
| ■ Fiduciary net position (FNP) | <u>288,509</u> | <u>285,170</u> |
| ■ Net pension liability (NPL) | 48,369 | 80,971 |
| ■ Funded status (FNP/TPL) | 85.6% | 77.9% |

Significant Assumptions and Other Inputs Used to Measure Total Pension Liability at 6/30/17:

| | |
|--|--|
| ■ Discount Rate | ■ 6.5%, net of investment expenses |
| ■ Inflation Rate | ■ 2.75% |
| ■ Salary Scale | ■ 3.25% |
| ■ Mortality Assumption for Service retirements & beneficiaries | ■ CalPERS 1997-2011 Post-Retirement Mortality Table projected fully generational with Society of Actuaries Scale MP-2016. |
| ■ Mortality Assumption for Disability retirements | ■ CalPERS 1997-2011 Mortality Table for non-work Disabled Retirees for Miscellaneous and CalPERS 1997-2011 Mortality Table for work-related Disabled Retirees for Safety. Both tables were projected fully generational with Society of Actuaries Scale MP-2016. |

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

Inflation was changed from 3.0% to 2.75%.

Salary scale was changed from 3.5% to 3.25%.

Mortality improvement was changed from fully generational projection with Society of Actuaries Scale MP-2014 modified to converge to ultimate improvement rates in 2022 to Society of Actuaries Scale MP-2016.

Discount rate

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

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

SECTION 2
GASBS 67 AND 68 NOTE DISCLOSURES

The 6.5% long-term expected rate of return was derived based on the inflation assumption of 2.75% and a long-term asset allocation of 65% equities and 35% fixed income. The geometric real rates of return were assumed to be 4.82% for equities and 1.47% for fixed income.

Date of actuarial valuation

The June 30, 2017 Total Pension Liability is based on an actuarial valuation as of June 30, 2017.

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

| | 1% Decrease 5.5% | Discount Rate 6.5% | 1% Increase 7.5% |
|-----------------------------|-----------------------------|-------------------------------|-----------------------------|
| Net Pension Liability (NPL) | \$76,333 | \$48,369 | \$24,224 |

SECTION 3
GASBS 67 AND 68 REQUIRED SUPPLEMENTARY INFORMATION

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

| Fiscal Year | 2016/17 |
|--|-----------------|
| Total Pension Liability | |
| Service cost | \$ 96 |
| Interest | 22,759 |
| Changes of benefit terms | 0 |
| Differences between expected and actual experience | (3,701) |
| Changes of assumptions | (16,246) |
| Benefit payments | <u>(32,171)</u> |
| Net change in Total Pension Liability | <u>(29,263)</u> |
| Total Pension Liability at beginning of year | 366,141 |
| Total Pension Liability at end of year | 336,878 |
| Fiduciary Net Position | |
| Contributions - employer | 8,645 |
| Contributions - member | 64 |
| Net investment income | 26,801 |
| Benefit payments | (32,171) |
| Administrative expenses | 0 |
| Other income | <u>0</u> |
| Net change in Fiduciary Net Position | <u>3,339</u> |
| Fiduciary Net Position at beginning of year | 285,170 |
| Fiduciary Net Position at end of year | 288,509 |
| Net Pension Liability (Asset) at end of year | 48,369 |
| Fiduciary Net Position as percentage of Total Pension Liability | 85.6% |
| Covered-employee payroll | TBD |
| Net Pension Liability as percentage of Covered-employee Payroll | TBD |

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

The Total Pension Liability as of June 30, 2017 is based on an actuarial valuation as of June 30, 2017.

Changes of Assumptions. In 2016/17, inflation was reduced to 2.75%, salary scale was reduced to 3.25%, mortality improvement was changed to use Society of Actuaries Scale MP-2016.

Differences between actual and expected experience. The largest component for 2016/17 was there were more deaths than expected.

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

SECTION 3

GASBS 67 AND 68 REQUIRED SUPPLEMENTARY INFORMATION

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

| Fiscal Year | (1) Actuarially Determined Contribution (ADC) | (2) Employer Contributions in relation to the Actuarially Determined Contribution | (3) Contribution Deficiency (Excess) (1)-(2) | (4) Covered-Employee Payroll | (5) ADC / Covered-Employee Payroll (1)/(4) |
|-------------|--|--|---|---------------------------------|---|
| 2016/17 | \$ 8,330 | \$ 8,645 | \$ (315) | TBD | TBD |

Significant Methods and Assumptions Used in Calculation of ADC for 2016/17

| Actuarial Assumption | FY 2016/2017 |
|----------------------------|--|
| ■ Actuarial valuation date | ■ June 30, 2015 |
| ■ Actuarial cost method | ■ Entry Age Normal, level percent of payroll |
| ■ Amortization method | ■ Level percent of payroll |
| ■ Amortization period | ■ 14 years open |
| ■ Asset method | <ul style="list-style-type: none"> ■ Actuarial value of assets ■ Gains/losses recognized over 3 years ■ Corridor of 85% - 115% of market value of assets |
| ■ Inflation | ■ 3.00% |
| ■ Salary Scale | ■ 3.5% |
| ■ Mortality Rate Table | <ul style="list-style-type: none"> ■ CalPERS' 1997-2007 Experience Study ■ Mortality projected fully generational with Scale MP-2014 modified to converge to ultimate rates in 2022. |
| ■ All Other | ■ Same as used in determining total pension liability for 2016/17 |

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

SECTION 4
GASBS 68 ADDITIONAL NOTE DISCLOSURES

Changes in Net Pension Liability/(Asset)

(Amounts in 000's)

| | Total Pension Liability (a) | Plan Fiduciary Net Position (b) | Net Pension Liability/ (Asset) (a) – (b) |
|--|-----------------------------------|---------------------------------------|---|
| ■ Balances at FYE 6/30/2016 | \$366,141 | \$285,170 | \$80,971 |
| ■ Changes for the year: | | | |
| • Service cost | 96 | | 96 |
| • Interest | 22,759 | | 22,759 |
| • Change of assumptions | (16,246) | | (16,246) |
| • Change of benefit terms | 0 | | 0 |
| • Differences between expected and actual experience | (3,701) | | (3,701) |
| • Contributions—employer | | 8,645 | (8,645) |
| • Contributions—member | | 64 | (64) |
| • Net investment income | | 26,801 | (26,801) |
| • Benefit payments, including refunds of member contributions | (32,171) | (32,171) | 0 |
| • Administrative expense ⁷ | <u>0</u> | <u>0</u> | <u>0</u> |
| ■ Net changes | (29,263) | 3,339 | (32,602) |
| ■ Balances at FYE 6/30/2017 | 336,878 | 288,509 | 48,369 |

Pension Expense for Fiscal Year

(Amounts in 000's)

| | 2016/17 |
|-------------------|-------------|
| ■ Pension Expense | \$ (13,307) |

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

SECTION 4
GASBS 68 ADDITIONAL NOTE DISCLOSURES

Balance of Deferred Outflows of Resources and Inflows of Resources
as of June 30, 2017
(Amounts in 000's)

| | Deferred Outflows of Resources | Deferred Inflows of Resources |
|---|--------------------------------------|-------------------------------------|
| ■ Differences between expected and actual experience | \$ 0 | \$ 0 |
| ■ Changes of assumptions and other inputs | 0 | 0 |
| ■ Net difference between actual and projected earnings on investments | 1,837 | 0 |
| ■ Employer contributions made subsequent to the Measurement Date | <u>0</u> | <u>0</u> |
| ■ Total | 1,837 | 0 |

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

| Measurement Period Ended June 30: | Net Deferred Outflows/(Inflows) of Resources |
|--------------------------------------|--|
| 2018 | \$ 1,622 |
| 2019 | 1,622 |
| 2020 | 397 |
| 2021 | (1,804) |
| 2022 | 0 |
| Thereafter | 0 |

SECTION 5

GASBS 68 SUPPORTING CALCULATIONS

Recognition of Deferred Outflows and Inflows of Resources

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

The average expected remaining service lifetime (AERSL) for the plan is calculated as 27.5 years of total expected future service divided by 1,085 plan participants, resulting in 0.025 years. Since the AERSL is less than 1.0, a recognition period of 1.0 year is used. Therefore all deferred outflows and inflows of resources for differences between actual and expected experience, and for changes in assumptions and other inputs, are fully recognized immediately. No recognition schedules are maintained for these amounts.

SECTION 5
GASBS 68 SUPPORTING CALCULATIONS

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

Projected Versus Actual Earnings on Investments

| Measurement Period | 2014/15 | 2015/16 | 2016/17 | Total |
|--|---------|----------|-----------|---------|
| ■ Initial amount* | \$6,135 | \$11,007 | \$(9,028) | |
| ■ Initial recognition period | 5 | 5 | 5 | |
| ■ Amount recognized in pension expense for current and prior fiscal years: | | | | |
| • 2014/15 | 1,227 | 0 | 0 | 1,227 |
| • 2015/16 | 1,227 | 2,201 | 0 | 3,428 |
| • 2016/17 | 1,227 | 2,201 | (1,806) | 1,622 |
| ■ Amount recognized in pension expense for future fiscal years: | | | | |
| • 2017/18 | 1,227 | 2,201 | (1,806) | 1,622 |
| • 2018/19 | 1,227 | 2,201 | (1,806) | 1,622 |
| • 2019/20 | 0 | 2,203 | (1,806) | 397 |
| • 2020/21 | 0 | 0 | (1,804) | (1,804) |
| • 2021/22+ | 0 | 0 | 0 | 0 |
| ■ Deferred Outflows as of FYE 6/30/17 | 2,454 | 6,605 | 0 | 1,837 |
| ■ Deferred Inflows as of FYE 6/30/17 | 0 | 0 | (7,222) | N/A |

* For 2016/17 Projected earnings = \$17,773, actual earnings = \$26,801. Difference = (\$9,028)

SECTION 5
GASBS 68 SUPPORTING CALCULATIONS

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

| | FY 2016/17 |
|---|-------------------|
| ■ Service cost | \$ 96 |
| ■ Interest on the total pension liability including service cost | 22,759 |
| ■ Projected earnings on plan investments | (17,773) |
| ■ Member contributions | (64) |
| ■ Administrative expense | 0 |
| ■ Recognition of deferred outflows and inflows of resources: | |
| ● Difference between expected and actual experience | (3,701) |
| ● Changes in assumptions and other inputs | (16,246) |
| ● Difference between actual and projected earnings on investments | <u>1,622</u> |
| ■ Total Pension Expense | (13,307) |

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

| | Dollar Amount | Expected Return | Portion of Year | Interest |
|--|--------------------------|----------------------------|----------------------------|-----------------|
| ■ Beginning Total Pension Liability | \$366,141 | 6.5% | 1.0 | \$23,799 |
| ■ Service Cost | 96 | 6.5% | 1.0 | 6 |
| ■ Benefit Payments | (32,171) | 6.5% | 0.5 | (1,046) |
| ■ Changes in Assumptions | (16,246) | 6.5% | 0.0 | 0 |
| ■ Differences Between Expected and Actual Experience | (3,701) | 6.5% | 0.0 | <u>0</u> |
| ■ Interest on Total Pension Liability | | | | 22,759 |

SECTION 5
GASBS 68 SUPPORTING CALCULATIONS

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

| | Dollar Amount | Expected Return | Portion of Year | Projected Earnings |
|-------------------------------------|--------------------------|----------------------------|----------------------------|-------------------------------|
| ■ Beginning Fiduciary Net Position | \$285,170 | 6.5% | 1.0 | \$18,536 |
| ■ Employer Contributions | 8,645 | 6.5% | 0.5 | 281 |
| ■ Member Contributions | 64 | 6.5% | 0.5 | 2 |
| ■ Benefit Payments | (32,171) | 6.5% | 0.5 | (1,046) |
| ■ Administrative Expenses | 0 | 6.5% | 0.5 | <u>0</u> |
| ■ Projected Earnings on investments | | | | 17,773 |

GASBS 68 Balance Equation
(Amounts in 000's)

| | 6/30/16 | 6/30/17 | Change |
|----------------------------------|----------------|----------------|---------------|
| ■ Total Pension Liability | \$366,141 | \$336,878 | \$(29,263) |
| ■ Fiduciary Net Position | <u>285,170</u> | <u>288,509</u> | <u>3,339</u> |
| ■ Net Pension Liability/(Asset) | 80,971 | 48,369 | (32,602) |
| ■ Deferred inflows of resources | 0 | 0 | 0 |
| ■ Deferred outflows of resources | (12,487) | (1,837) | 10,650 |
| ■ Employer contributions | <u>N/A</u> | <u>8,645</u> | <u>8,645</u> |
| ■ Net impact on balance sheet | 68,484 | 55,177 | (13,307) |
| Check: | | | |
| ■ Pension expense for year | | | \$(13,307) |

SECTION 5
GASBS 68 SUPPORTING CALCULATIONS

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

| Year | Payroll | Employer Contributions for Current Employees | Employee Contributions for Current Employees | Contributions from Payroll of Future Employees | Total Contributions |
|-------------|----------------|---|---|---|----------------------------|
| 1 | \$1,049 | \$8,267 | \$66 | \$0 | \$8,333 |
| 2 | 717 | 5,268 | 45 | 0 | 5,313 |
| 3 | 485 | 4,851 | 30 | 0 | 4,881 |
| 4 | 297 | 4,497 | 19 | 0 | 4,516 |
| 5 | 185 | 4,192 | 12 | 0 | 4,204 |
| 6 | 124 | 3,810 | 8 | 0 | 3,818 |
| 7 | 67 | 3,668 | 4 | 0 | 3,672 |
| 8 | 40 | 3,325 | 2 | 0 | 3,328 |
| 9 | 19 | 3,142 | 1 | 0 | 3,144 |
| 10 | 8 | 2,970 | 1 | 0 | 2,970 |
| 11 | 2 | 2,806 | 0 | 0 | 2,806 |
| 12 | 1 | 2,652 | 0 | 0 | 2,652 |
| 13 | 0 | 2,505 | 0 | 0 | 2,505 |
| 14 | 0 | 2,366 | 0 | 0 | 2,366 |
| 15 | 0 | 2,235 | 0 | 0 | 2,235 |
| 16 | 0 | 2,111 | 0 | 0 | 2,111 |
| 17 | 0 | 1,993 | 0 | 0 | 1,993 |
| 18 | 0 | 1,882 | 0 | 0 | 1,882 |
| 19 | 0 | 1,777 | 0 | 0 | 1,777 |
| 20 | 0 | 1,677 | 0 | 0 | 1,677 |
| * | * | * | * | * | * |
| 56 | 0 | 1 | 0 | 0 | 1 |
| 57 | 0 | 1 | 0 | 0 | 1 |
| 58 | 0 | 0 | 0 | 0 | 0 |
| 59 | 0 | 0 | 0 | 0 | 0 |
| 60 | 0 | 0 | 0 | 0 | 0 |
| 61 | 0 | 0 | 0 | 0 | 0 |
| 62 | 0 | 0 | 0 | 0 | 0 |
| * | * | * | * | * | * |
| 73 | 0 | 0 | 0 | 0 | 0 |
| 74 | 0 | 0 | 0 | 0 | 0 |
| 75 | 0 | 0 | 0 | 0 | 0 |
| 76 | 0 | 0 | 0 | 0 | 0 |
| 77 | 0 | 0 | 0 | 0 | 0 |
| 78 | 0 | 0 | 0 | 0 | 0 |
| 79 | 0 | 0 | 0 | 0 | 0 |
| 80 | 0 | 0 | 0 | 0 | 0 |
| 81 | 0 | 0 | 0 | 0 | 0 |
| 82 | 0 | 0 | 0 | 0 | 0 |

Note: Years 21 to 55, and 63 to 72 omitted.

SECTION 5
GASBS 68 SUPPORTING CALCULATIONS

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

| Year | Projected Beginning Fiduciary Net Position | Projected Total Contributions | Projected Benefit Payments | Projected Administrative Expense | Projected Investment Earnings | Projected Ending Fiduciary Net Position |
|-------------|---|--------------------------------------|-----------------------------------|---|--------------------------------------|--|
| 1 | \$288,509 | \$8,333 | \$31,967 | \$0 | \$17,985 | \$282,860 |
| 2 | 282,860 | 5,313 | 31,688 | 0 | 17,529 | 274,014 |
| 3 | 274,014 | 4,881 | 31,293 | 0 | 16,953 | 264,556 |
| 4 | 264,556 | 4,516 | 30,788 | 0 | 16,342 | 254,626 |
| 5 | 254,626 | 4,204 | 30,191 | 0 | 15,706 | 244,345 |
| 6 | 244,345 | 3,818 | 29,544 | 0 | 15,046 | 233,665 |
| 7 | 233,665 | 3,672 | 28,830 | 0 | 14,371 | 222,878 |
| 8 | 222,878 | 3,328 | 28,069 | 0 | 13,683 | 211,820 |
| 9 | 211,820 | 3,144 | 27,265 | 0 | 12,984 | 200,682 |
| 10 | 200,682 | 2,970 | 26,427 | 0 | 12,282 | 189,508 |
| 11 | 189,508 | 2,806 | 25,555 | 0 | 11,579 | 178,339 |
| 12 | 178,339 | 2,652 | 24,658 | 0 | 10,877 | 167,210 |
| 13 | 167,210 | 2,505 | 23,735 | 0 | 10,179 | 156,159 |
| 14 | 156,159 | 2,366 | 22,788 | 0 | 9,487 | 145,224 |
| 15 | 145,224 | 2,235 | 21,818 | 0 | 8,803 | 134,444 |
| 16 | 134,444 | 2,111 | 20,825 | 0 | 8,131 | 123,861 |
| 17 | 123,861 | 1,993 | 19,810 | 0 | 7,472 | 113,516 |
| 18 | 113,516 | 1,882 | 18,774 | 0 | 6,830 | 103,453 |
| 19 | 103,453 | 1,777 | 17,719 | 0 | 6,206 | 93,716 |
| 20 | 93,716 | 1,677 | 16,647 | 0 | 5,605 | 84,351 |
| * | * | * | * | * | * | * |
| 56 | 932 | 1 | 172 | 0 | 55 | 816 |
| 57 | 816 | 1 | 157 | 0 | 48 | 707 |
| 58 | 707 | 0 | 143 | 0 | 41 | 605 |
| 59 | 605 | 0 | 129 | 0 | 35 | 511 |
| 60 | 511 | 0 | 115 | 0 | 29 | 425 |
| 61 | 425 | 0 | 102 | 0 | 24 | 347 |
| 62 | 347 | 0 | 89 | 0 | 20 | 278 |
| * | * | * | * | * | * | * |
| 73 | 6 | 0 | 2 | 0 | 0 | 4 |
| 74 | 4 | 0 | 1 | 0 | 0 | 3 |
| 75 | 3 | 0 | 0 | 0 | 0 | 3 |
| 76 | 3 | 0 | 0 | 0 | 0 | 3 |
| 77 | 3 | 0 | 0 | 0 | 0 | 3 |
| 78 | 3 | 0 | 0 | 0 | 0 | 3 |
| 79 | 3 | 0 | 0 | 0 | 0 | 3 |
| 80 | 3 | 0 | 0 | 0 | 0 | 3 |
| 81 | 3 | 0 | 0 | 0 | 0 | 3 |
| 82 | 3 | 0 | 0 | 0 | 0 | 3 |

Note: Years 21 to 55, and 63 to 72 omitted.

SECTION 5
GASBS 68 SUPPORTING CALCULATIONS

Discount Rate “Crossover” Test

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

| Year | Projected Beginning Fiduciary Net Position | Projected Benefit Payments | "Funded" Portion of Benefit Payments | "Unfunded" Portion of Benefit Payments | PV of "Funded" Benefit Payments | PV of "Unfunded" Benefit Payments | PV of Benefit Payments using 6.5% Discount Rate |
|-------------|---|-----------------------------------|---|---|--|--|--|
| 1 | \$288,509 | \$31,967 | \$31,967 | \$0 | \$30,016 | \$0 | \$30,016 |
| 2 | 282,860 | 31,688 | 31,688 | 0 | 27,938 | 0 | 27,938 |
| 3 | 274,014 | 31,293 | 31,293 | 0 | 25,906 | 0 | 25,906 |
| 4 | 264,556 | 30,788 | 30,788 | 0 | 23,932 | 0 | 23,932 |
| 5 | 254,626 | 30,191 | 30,191 | 0 | 22,036 | 0 | 22,036 |
| 6 | 244,345 | 29,544 | 29,544 | 0 | 20,247 | 0 | 20,247 |
| 7 | 233,665 | 28,830 | 28,830 | 0 | 18,552 | 0 | 18,552 |
| 8 | 222,878 | 28,069 | 28,069 | 0 | 16,960 | 0 | 16,960 |
| 9 | 211,820 | 27,265 | 27,265 | 0 | 15,469 | 0 | 15,469 |
| 10 | 200,682 | 26,427 | 26,427 | 0 | 14,078 | 0 | 14,078 |
| 11 | 189,508 | 25,555 | 25,555 | 0 | 12,783 | 0 | 12,783 |
| 12 | 178,339 | 24,658 | 24,658 | 0 | 11,581 | 0 | 11,581 |
| 13 | 167,210 | 23,735 | 23,735 | 0 | 10,468 | 0 | 10,468 |
| 14 | 156,159 | 22,788 | 22,788 | 0 | 9,437 | 0 | 9,437 |
| 15 | 145,224 | 21,818 | 21,818 | 0 | 8,484 | 0 | 8,484 |
| 16 | 134,444 | 20,825 | 20,825 | 0 | 7,603 | 0 | 7,603 |
| 17 | 123,861 | 19,810 | 19,810 | 0 | 6,791 | 0 | 6,791 |
| 18 | 113,516 | 18,774 | 18,774 | 0 | 6,043 | 0 | 6,043 |
| 19 | 103,453 | 17,719 | 17,719 | 0 | 5,356 | 0 | 5,356 |
| 20 | 93,716 | 16,647 | 16,647 | 0 | 4,724 | 0 | 4,724 |
| * | * | * | * | * | * | * | * |
| 56 | 932 | 172 | 172 | 0 | 5 | 0 | 5 |
| 57 | 816 | 157 | 157 | 0 | 4 | 0 | 4 |
| 58 | 707 | 143 | 143 | 0 | 4 | 0 | 4 |
| 59 | 605 | 129 | 129 | 0 | 3 | 0 | 3 |
| 60 | 511 | 115 | 115 | 0 | 3 | 0 | 3 |
| 61 | 425 | 102 | 102 | 0 | 2 | 0 | 2 |
| 62 | 347 | 89 | 89 | 0 | 2 | 0 | 2 |
| * | * | * | * | * | * | * | * |
| 73 | 6 | 2 | 2 | 0 | 0 | 0 | 0 |
| 74 | 4 | 1 | 1 | 0 | 0 | 0 | 0 |
| 75 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 76 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 77 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 78 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 79 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 80 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 81 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 82 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | | | | | 325,325 | 0 | 325,325 |

Note: Years 21 to 55, and 63 to 72 omitted.

