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

Annual Financial Report

Fiscal Year Ended June 30, 2019
(With Comparative Totals as of June 30, 2018)

SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM
A Component Unit of the City of Sacramento, California
Fiscal Year Ended June 30, 2019

TABLE OF CONTENTS

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, 2019

December 19, 2019

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 2019 Fiscal Year, or June 30, 2019.

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), the financial statements of SCERS, Required Supplemental Information (RSI), and Additional Information; 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 (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 (Leyne Milstein, Designee)
John Colville, City Treasurer
Dawn Holm, Director of Finance (Jason Bader Designee)

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

David DeCamilla was elected by the Board in January 2010 to serve as Board Chair, a position he held through January 2018. Mr. DeCamilla has served on the Board since February 1985, starting with a partial term as replacement for a departing board member and continuously in full term appointments from February 1998 to the present.

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, 2019

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 served as the Vice-Chair from April 2016 to January 2018. In January 2018 he was elected as Chair.

John Colville, City Treasurer, was appointed to his current position in February 2016 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. Currently, Mr. Colville serves as Vice Chair of the board having been elected in January 2018.

Howard Chan, City Manager, was appointed to his current position in February 2017 and assumed the Board membership position at that time. Mr. Chan has appointed Leyne Milstein, Assistant City Manager, to serve as his designee. She has served on the board in various capacities since 2008.

Dawn Holm, Finance Director, has designated Jason Bader to serve as her designee. Mr. Bader began his board service in 2018. Mr. Bader is a Principal Management Analyst and joined the City in 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 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, 2019, the average age of SCERS active members is 65.0 years and the average years of service is 35.9 years. As of said date, there are 8 active miscellaneous members and a total of 989 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 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.

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, 2019

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" plan, 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.

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 the sole remaining real estate trust deed.

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 May 3, 2018, the Board established the asset allocation of the investment of SCERS funds during the fiscal year beginning July 1, 2018 and ending June 30, 2019. The approved asset allocation is as follows:

Fixed Income	
Fixed Bond	30.0%
Equity	
Large Cap Growth	35.0%
Equity Income	27.5%
International	7.5%
	100.0%

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, 2019

ACTUARIAL EARNING ASSUMPTION

During the fiscal year ended June 30, 2019, SCERS actuarial earnings assumption was 6.5 percent.

FINANCIAL RESULTS

The plan net position of SCERS decreased from $286.609 million to $281.568 million by the end of fiscal year ended June 30, 2019. This $5.041 million decrease is summarized as follows:

SCERS PLAN NET POSITION	$ in thousands
Plan net position 6/30/18	$286,609
Members Contributions	49
City Contributions	7,507
Total Investment Income	19,638
Benefit Payments & Expenses	-32,235
Plan net position 6/30/19	281,568

SCERS' Total Pension Liability (TPL) as of June 30, 2019 is approximately $313.073 million. TPL represents the present value of all future benefits that will be paid by SCERS. SCERS funding ratio using market value of assets was 89.9 percent of TPL on June 30, 2019. The funding ratio is defined as that portion of the total TPL 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 $0.89 of assets available for payment. SCERS has a Net Pension Liability (NPL) of $31.505 million.

TOTAL FUND PERFORMANCE

As required by the SCERS Investment Policy, the Board retained a third-party firm, namely Segal Marco Advisors (formerly Rogerscasey) to calculate total investment return and measure investment performance. Segal Marco Advisors 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 Marco Advisors 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, 2019:

Table 1

SCERS Total Rate of Return
TOTAL PLAN ASSETS
For the periods ended June 30, 2019

Annualized Compound Returns	1 Yr.	3 Yrs.	10 Yrs.
SCERS – All Funds	7.37%	8.40%	8.95%
Custom Index – Target *[1]	7.06%	6.90%	7.86%
Actuarial Assumption	6.50%	6.50%	6.50%

For the fiscal year ended June 30, 2019, the total return of the System's invested assets resulted in a 7.37% overall return. The System's investment returns exceeded the market-based benchmarks utilized by Segal Marco Advisors 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. The System not only outperformed the benchmarks, the 1, 3 and 10 yr. portfolio returns also outperformed the 6.5% actuarial rate of return. Consistent with the "prudent person" standard set forth in the SCERS investment policy, the Board and its investment staff does 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 strategy 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 has been declining since 2015. 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 over time 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 are within 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.

[1] The Custom Index is a blended return based on the actual market performance of Segal Marco Advisors benchmarks representing each of the investment asset classes utilized by the System pursuant to the Board's established asset allocation.

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 57.5% of the System's assets were allocated to the Fixed Fund (30%) and Equity Income Fund (27.5%). 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, the volatility of the Fixed Fund and Equity Income Fund has been 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 FY2019, 30% 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, short-term high yield ETF's, plus short-term, cash-equivalent investments. In addition, the Fund includes a 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 ended June 30, 2019:

Table 2

SCERS Total Rate of Return
FIXED INCOME
For the periods ended June 30, 2019

Annualized Compound Returns	1 Yr.	3 Yrs.	10 Yrs.
SCERS Fixed Fund	8.54%	4.02%	6.67%
Fixed Portfolio Index*	7.87%	2.31%	3.90%

*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 8.54% for the one-year period ended June 30, 2019, a rate greater than the Fund's market-based benchmark, the Barclays US Aggregate Bond Index that turned in a 7.87% return. The fund has 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 6.67% annually which exceeds the benchmark return of 3.90% and, more importantly, exceeds 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 was the best performing asset class for the fiscal year ended June 30, 2019. 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 at 8.54% is an increase over the previous years' return of 2.24%. This increase in returns occurred even in a changing interest rate environment. In the Fall of 2014 the Federal Reserve (Fed) terminated their bond purchase program. They continued with their first hike of the Federal Funds rate in December 2015. The tightening strategy grew in momentum with six 0.25% Federal Fund rate hikes through FY2018 (bond prices move inversely to interest rates as higher rates result in lower bond values). Those rate hikes in the short-term Federal Funds rate, coupled with a strengthening labor market and economy, resulted in an upward shift in rates across all maturities on the yield curve. However, at the last hike in December 2018, the Fed faced great criticism that the last hike may not have been warranted in light of softening economic data. While equity and bond markets suffered in the aftermath of the December 2018 hike, the Fed maintained their stance of being data dependent and made no changes to interest rates through June of 2019, citing stable unemployment and low inflation which stabilized fixed income markets. The portfolio does contain many high coupon bonds that will be subject to call risk going forward. We will be challenged to re-deploy these assets in high income producing vehicles if the low interest rate environment persists. Also important, the high coupons of the portfolio's holdings continued to contribute in excess of $4.1 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 (ETFs). ETFs 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). ETFs provide investors with effective tools to provide exposure into broad swaths of the market or into 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 in-line 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 ETFs.

By Board policy for the fiscal year ended June 30, 2019, 70% 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, 2019

Annualized Compound Returns	1 Yr.	3 Yrs.	10 Yrs.
SCERS Domestic Equities	7.42%	11.47%	11.98%
Domestic Equity Index	6.91%	11.86%	12.45%
Individual SCERS Domestic Equity Portfolios			
Large Cap Growth Fund	6.88%	12.89%	11.97%
Large Cap Index**	8.22%	11.91%	12.33%
Equity Income Fund	8.13%	9.28%	12.55%
Equity Income Index***	5.66%	7.44%	11.57%

**Large Cap Index = Dec 1992 – June 2007 = 100% Russell 1000 Growth, June 2007 to present = 100% S&P 500
***Equity Income Index = Apr 1986 – Feb 1992 = 100% Fixed Portfolio, Mar 1992 to June 2016 = 100% Dow Jones Select Dividend Index, July 2016 to present Russell 1000 value (price)

Table 3

SCERS Total Rate of Return
INTERNATIONAL EQUITY INVESTMENTS
For the periods ended June 30, 2019

Annualized Compound Returns	1 Yr.	3 Yrs.	10 Yrs.
SCERS International Fund	1.42%	8.78%	4.13%
International Equity Index*	-1.52%	6.56%	3.74%

*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 7.42% for the one-year period as compared to the 6.91% return by the benchmark (Russell 3000 which represents the stocks of approximately 98% of US publicly traded corporations). These domestic 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 that prevailed through most of the fiscal year. The domestic equity markets did suffer a correction in December of 2018 but recaptured their losses headed into the end of the fiscal year ended June 30, 2019.

The two domestic stock portfolios, Large Cap Growth Fund and Equity Income Fund, showed above actuarial returns with 6.88% and 8.13%, respectively, while the International Fund underperformed domestic equities at 1.42%.

The Plan's largest equity portfolio is the Large Cap Growth Fund which is benchmarked to the S & P 500 Index. While the 1 Yr returns lagged historical domestic long-term returns in the 9% range, both the 3 Yr and 10 Yr returns exceed 11% The domestic market surged until the winter of FY2019 as the country digested improving job growth, higher wages, and the implementation of the previous years' tax cut that incentivized corporations to invest in the economy. In late 2018 the markets began to experience increased volatility as political infighting and threatened trade tariffs with China began to escalate. In December 2018 the S & P 500 saw a -9.3% drop in a single month. The fears that the Fed had raised interest rates in a softening economic environment spooked the equity and bond markets alike. The fear in the markets was palpable but turned out to be short lived. Between January 1, 2019 and June 30, 2019, the S&P turned in a +17% return to finish the fiscal year up over 8%. Although the Large Cap Funds primary objective is growth, the portfolio also generated over $1.7 million in dividend payments to fund the System's operating needs.

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 steady rise in FY2019 and turned in a return that also outperformed the actuarial assumption for the year. When the December 2018 volatility began in the markets, investors favored these value assets as a "hiding place" until the volatility in the markets began to stabilize. As intended, the assets in this portfolio offer diversification away from the pure growth portfolio. The Fund's total return was 8.13% which far exceeded the benchmark, and, most importantly, outperformed the actuarial rate of return of 6.5% by a wide margin. The Equity Income Fund helps to fulfill the Board's objective of enhancing cash income to help pay benefits. The Fund's dollar contribution from dividends was $2.2 million for the year, providing much needed cash into the System as intended.

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 (7.5% for the year ended June 30, 2019) 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 until running out of steam in 2018, and our international portfolio turned in a 1.42% return for the FY2019. While the international component of the portfolio does not contribute significant cashflow into the system, it offers prudent diversification away from the domestic holdings which comprise the majority of the Fund's assets. The International Fund generated over $ .5 million in dividend payments over the fiscal year.

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 neutral impact on the returns and cash generation of the Fund.

INDEPENDENT AUDIT

SCERS receives an independent audit of the basic financial statements. Macias Gini & O'Connell LLP (MGO) conducted the audit for the fiscal year ended June 30, 2019 and issued an unmodified or "clean" opinion. The Independent Auditor's Report can be found on page 1 of this report. The City 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 and GASB 67 & 68 reports for SCERS as of June 30, 2019 are presented in this document. Very briefly, these reports identify a Net Pension Liability (NPL) of $31.505 million as of June 30, 2019. This amount represents a 17.2% decrease in NPL over the prior fiscal year.

PROFESSIONAL SERVICES

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

Firm	**Duties**
Segal Marco Advisors	Performance evaluation
Bartel Associates	Actuarial evaluation & asset allocation (since 6/30/06)
JPMorgan	Custody and master trust (since 8/1/17)

BOARD MEETINGS

For the fiscal year ended June 30, 2019 regular meetings of the Board were held in City Treasurer's Conference Room 2nd Floor, 915 "I" Street, at 1:30 p.m., on September 5, 2018, November 15, 2018, February 7, 2019, and May 16, 2019. The Board's meetings were open to the public and attendees were 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

Manuel Leon, Chair,
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 fiduciary net position;
4. A statement of changes in the fiduciary net position
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

MGO Certified Public Accountants

Independent Auditor's Report

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

Honorable Mayor and City Council
City of Sacramento
Sacramento, California

Report on the Financial Statements

We have audited the accompanying financial statements of the Sacramento City Employees' Retirement System (SCERS), a component unit of the City of Sacramento, California, as of and for the fiscal year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise SCERS' basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

SCERS' 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.

Auditor's 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 and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. 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 fiduciary net position of SCERS as of June 30, 2019, and the changes in its fiduciary net position for the fiscal year then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As discussed in Note F to the financial statements, the total pension liability for SCERS, based on the actuarial valuation as of June 30, 2019, exceeded SCERS' fiduciary net position by $31,505,000. The actuarial valuation is very sensitive to the underlying assumptions, including a discount rate of 6.50 percent, which represents the long-term expected rate of return. Our opinion is not modified with respect to this matter.

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 fiscal year ended June 30, 2018, from which such partial information was derived.

SCERS' 2018 financial statements were audited by other auditors whose report thereon, dated December 20, 2018, expressed an unmodified opinion on those financial statements.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, the schedule of changes in net pension liability and related ratios, the schedule of employer contributions and the schedule of investment returns, as listed in the table of contents, 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, 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 listing of investments is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to the 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, the listing of investments is 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.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated December 19, 2019, on our consideration of the SCERS' internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the SCERS' internal control over financial reporting and compliance.

Macias Gini & O'Connell LLP

Sacramento, California
December 19, 2019

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 year ended June 30, 2019. 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 $281.6 million of net position restricted for pension benefits as of June 30, 2019 and $286.6 million as of June 30, 2018. SCERS' entire net position balance is restricted for its 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, 2019, SCERS plan fiduciary net position as a percentage of the total pension liability was 89.9% which means for every dollar of total pension liability, SCERS had approximately $0.89 of assets available to pay those benefits. This figure is based on the most recent actuarial valuation as of June 30, 2019. As of June 30, 2018, SCERS plan fiduciary net position as a percentage of the total pension liability was 88.3 %.
- SCERS' employer contribution was $7.5 million for the fiscal year ended June 30, 2019, a decrease from $8.6 million for 2018.
- For the fiscal year ended June 30, 2019, SCERS' net income from investment activity was $18.5 million, compared to net investment income of $21.0 million in the prior year. The decrease in investment income was mainly due to a decrease in appreciation in the fair value of investments, from $13.3 million in 2018 to $10.9 million in 2019.

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 Fiduciary Net Position*** is a snapshot of account balances as of June 30, 2019 with comparative amounts for 2018. 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 Fiduciary 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 fiduciary net position and the statement of changes in plan fiduciary 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.

Financial Analysis

SCERS' net position may serve as a useful indicator of SCERS' financial position over time. As mentioned earlier, SCERS' entire net position balance is restricted for SCERS' ongoing obligation to plan participants and their beneficiaries. Net position as of June 30, 2019 and 2018 is as follows:

NET POSITION SUMMARY
As of June 30, 2019 and 2018
(in thousands)

	2019	2018	Change	Percent
Cash and cash equivalents	$ 8,344	$ 4,149	$ 4,195	101%
Receivables	1,300	1,481	(181)	-12%
Investments at fair value	274,467	282,124	(7,657)	-3%
Total assets	284,111	287,754	(3,643)	-1%
Total liabilities	2,543	1,145	1,398	122%
Net position restricted for pension benefits	$ 281,568	$ 286,609	$ (5,041)	-2%

SCERS' net position restricted for pension benefits decreased in 2019, as benefit payments and contribution refunds exceeded contributions and investment income. The increase in cash can be mainly attributed to the sale of investments, offset partially by a net decrease in plan net position. Although net position decreased, total pension liability also decreased and the plan fiduciary net position as a percentage of the total pension liability improved from 88.3% to 89.9% in 2019.

The following table summarized additions and deductions for 2019 and 2018:

HIGHLIGHTS OF CHANGES IN NET POSITION
Fiscal years ended June 30, 2019 and 2018
(in thousands)

	2019	2018	Change	Percent
Additions:				
Employer contributions	$ 7,507	$ 8,645	$ (1,138)	-13%
Employee contributions	49	55	(6)	-11%
Net appreciation in the fair value of investments	10,940	13,305	(2,365)	-18%
Interest	4,130	4,378	(248)	-6%
Dividends	4,568	4,444	124	3%
Investment expenses	(1,101)	(1,145)	44	-4%
Total additions	26,093	29,682	(3,589)	-12%
Deductions:				
Benefit payments	30,880	31,583	(703)	-2%
Refunds of employee contributions	254	-	254	N/A
Total deductions	31,134	31,583	(449)	-1%
Net (decrease) in net position	(5,041)	(1,901)	(3,140)	165%
Net position restricted for pension benefits:				
Beginning of fiscal year	286,609	288,510	(1,901)	-1%
End of fiscal year	$ 281,568	$ 286,609	$ (5,041)	-2%

- Required employer contributions decreased for the fiscal year ended June 30, 2019, due to improved performance of the investment portfolio over the past several years.
- Employee contributions for the fiscal year ended June 30, 2019 decreased slightly from 2018 due to retirement of active members. Contributions are expected to decline as the system is closed to new members and the number of active members decreases with each passing year.
- Net appreciation in fair value of investments decreased by $2.4 million in 2019. The $10.9 million gain during the fiscal year ended June 30, 2019 consists of $2.8 million of unrealized gains and $8.1 million of realized gains, compared to $43.7 thousand of unrealized gains and $13.26 million of realized gains for the fiscal year ended June 30, 2018. The decrease in realized gains is mainly due to the performance of the Large Cap Growth Fund, $6.5 million gain in 2019 compared to $8.2 million in 2018, and the Equity Income Fund, $1.9 million gain in 2019 compared to $4.5 million in 2018. The increase in unrealized gains is mainly due to a $2.7 million increase in fair value of the Fixed Bonds Fund in 2019.
- Benefit payments to plan participants decreased due to a decline in the number of participants receiving benefits. The decrease was slightly offset by the annual cost of living adjustment made to the benefit amount. As the plan has been closed since 1980, the number of participants receiving benefits declines each year.
- A vested member elected to terminate his membership with SCERS and receive a refund of contributions totaling $254 thousand in 2019.

Changes in Funded Ratio

SCERS plan fiduciary net position as a percentage of the total pension liability for the fiscal years ended June 30, 2018 and 2019 were 88.3% and 89.9%, respectively. The increase in funded ratio between June 30, 2018 and June 30, 2019 is largely due to the decrease in total pension liability of $11.6 million in 2019. The decrease in total pension liability is mainly due to actual benefit payments exceeding interest on total pension liability by $11.0 million.

Currently Known Facts and Events

The overall risk profile of SCERS has remained unchanged since June 30, 2019, 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, CA, 95814.

SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM
A Component Unit of the City of Sacramento
Statement of Plan Fiduciary Net Position
June 30, 2019
With Comparative Totals for June 30, 2018
(Amounts Expressed in Thousands)

	2019	2018
Assets		
Cash and cash equivalents	$ 8,344	$ 4,149
Receivables:		
Interest and dividends	1,300	1,481
Total receivables	1,300	1,481
Investments:		
U.S. agencies	813	973
Corporate bonds	23,268	29,338
Equities	32,110	33,029
Exchange traded funds	164,194	166,072
Municipal bonds	52,775	51,185
Mortgage loans	1,307	1,527
Total investments	274,467	282,124
Total assets	284,111	287,754
Liabilities		
Benefits payable	2,536	1,134
Accounts payable	7	11
Total liabilities	2,543	1,145
Net position restricted for pensions	$ 281,568	$ 286,609

See accompanying notes to basic financial statements.

SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM
A Component Unit of the City of Sacramento
Statement of Changes in Plan Fiduciary Net Position
Fiscal Year Ended June 30, 2019
With Comparative Totals for the Fiscal Year Ended June 30, 2018
(Amounts Expressed in Thousands)

	2019	2018
Additions		
Contributions:		
Employer	$ 7,507	$ 8,645
Employees	49	55
Total contributions	7,556	8,700
Investment income:		
From investment activities:		
Net appreciation in fair value of investments	10,940	13,305
Interest	4,130	4,378
Dividends	4,568	4,444
Total investment income	19,638	22,127
Less investment expense:		
Banking, interest, fiscal agent & other	52	57
Professional services	1,049	1,088
Total investment expense	1,101	1,145
Net investment income	18,537	20,982
Total net additions	26,093	29,682
Deductions		
Benefit payments	30,880	31,583
Refunds of employee contributions	254	-
Total deductions	31,134	31,583
Net (decrease) in plan net position	(5,041)	(1,901)
Net position restricted for pensions		
Beginning of fiscal year	286,609	288,510
End of fiscal year	$ 281,568	$ 286,609

See accompanying notes to basic financial statements.

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. Members of this plan who have completed at least 5 years of service in the aggregate and attained the age of 50 are eligible for service retirement.

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. Members of this plan who have completed at least 5 years of service in the aggregate and attained the age of 55 for miscellaneous members or age 50 for safety members are eligible for service retirement.

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. Members of this plan who have completed at least 20 years of service in the aggregate and attained the age of 55 are eligible for service retirement.

For each of the plans above, service retirement allowance as a percentage of final compensation is calculated with set rates based on plan and age at retirement multiplied by the number of service years credited to the member at retirement. Service retirement allowance is capped at 75% of a member's final compensation for the Charter Section 399 Plan and Equal Shares Plan.

(Dollars in thousands, except as otherwise noted)

Note A – Plan Description (Continued)

Plan membership at June 30, 2019 consisted of the following:

	Section 399	Equal Shares	Section 175	Total
Inactive members or beneficiaries receiving benefits	869	49	55	973
Inactive members entitled to but not yet receiving benefit	7	-	1	8
Active plan members	8	-	-	8
Total plan members	884	49	56	989

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 3% for fiscal year 2019. 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.

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.

As 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, 2019 are fully vested.

As 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, 2019 active member contributions ranged from 6% to 10% of payroll. At June 30, 2019, active members' accumulated contributions, including interest, totaled approximately $2,798. For the fiscal year ended June 30, 2019, interest was credited to members' contributions at the rate of 9%. 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.

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 1.63 years as of June 30, 2019.

Note C – Cash and Investments (Continued)

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 3, 2018, the Board adopted the following asset allocation policy for fiscal year 2019:

Asset Class	Target Allocation
Fixed Income	30.0%
Large Cap Growth	35.0%
Equity Income	27.5%
International	7.5%
Total	100.0%

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.

(Dollars in thousands, except as otherwise noted)

Note C – Cash and Investments (Continued)

Interest Rate Risk (Continued)

At June 30, 2019, SCERS' investments have maturities as follows:

		Remaining Maturity in Years				
Investment Type	No Maturity	Under 1	1-5	Over 5/ 10 or less	Over 10	Total
Cash and short-term investments:						
City of Sacramento Investment Pool	$ -	$ 8,344	$ -	$ -	$ -	$ 8,344
Investments:						
Corporate bonds/notes	-	-	5,300	3,150	14,818	23,268
Equities	32,110	-	-	-	-	32,110
Exchange traded funds	164,194	-	-	-	-	164,194
Mortgage loans	-	-	1,307	-	-	1,307
Municipal bonds/notes	-	-	1,516	11,422	39,837	52,775
U.S. agency securities	-	-	15	18	780	813
Total Investments	196,304	-	8,138	14,590	55,435	274,467
Total Cash and Investments	$ 196,304	$ 8,344	$ 8,138	$ 14,590	$ 55,435	$ 282,811

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

The fair values of the callable securities held at June 30, 2019 by investment type are as follows:

Investment Type	Total
Corporate bonds/notes	$ 17,927
Municipal bonds/notes	15,702
	$ 33,629

(Dollars in thousands, except as otherwise noted)

Note C – Cash and Investments (Continued)

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, 2019, 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 $42 as of June 30, 2019.

At June 30, 2019, SCERS' investments and credit ratings are as follows:

Investment Type	S & P	Moody's	Total
City of Sacramento Investment Pool	not rated	not rated	$ 8,344
Corporate bonds/notes	A	A	4,967
	A	Aa	5,300
	AA	Aa	3,150
	BBB	A	7,610
	BBB	Baa	2,199
	not rated	withdrawn	42
Equities (exempt from disclosure)	N/A	N/A	32,110
Exchange traded funds (exempt from disclosure)	N/A	N/A	164,194
Mortgage loans	not rated	not rated	1,307
Municipal bonds/notes	A	A	9,247
	A	not rated	6,102
	AA	A	1,236
	AA	Aa	26,675
	AA	Aaa	2,761
	AA	not rated	5,417
	not rated	Aa	1,337
U.S. agency securities	AAA	Aaa	69
	N/A	N/A	744
Total Cash and Investments			$ 282,811

Note C – Cash and Investments (Continued)

Concentration Risk

As of June 30, 2019, SCERS held the following investment in an individual issuer exceeding 5% of plan fiduciary net position (other than U.S. Treasury securities, mutual funds, and external investment pools):

iShares Russell 1000 Value Index (ETF)	$ 36,385
Technology Select Sector SPDR Fund (ETF)	14,906

Money-weighted Rate of Return

For the fiscal year ended June 30, 2019, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense was 7.08%. 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).

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 process 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.

(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, 2019. 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, 2019:

		Fair Value Measurements on a Recurring Basis Using		
Investments by Fair Value Level	Balance at June 30, 2019	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Corporate bonds/notes	$ 23,268	$ -	$ 23,268	$ -
Equities	32,110	32,110	-	-
Exchange traded funds	164,194	164,194	-	-
Mortgage loans	1,307	-	-	1,307
Municipal bonds/notes	52,775	-	52,775	-
U.S. agency securities	813	-	813	-
Total Investments by Fair Value Level	274,467	$ 196,304	$ 76,856	$ 1,307
Investments at Fair Value not Subject to Fair Value Hierarchy				
City of Sacramento Investment Pool	8,344			
Total Cash and Investments	$ 282,811			

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.

Note D – Related Party Transactions

At June 30, 2019, SCERS held revenue bonds issued by the Sacramento City Financing Authority (SCFA) in the amount of $6,103. SCFA is 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. These bonds are measured at fair value using level 2 inputs.

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, 2019, the City's annual required and actual contribution was $7,507.

Note F – Net Pension Liability of the City

The components of the net pension liability of the City at June 30, 2019 is shown below (dollars in millions). The total pension liability is based on an actuarial valuation as of June 30, 2019.

	June 30, 2019
Total pension liability	$ 313,073
Plan fiduciary net position	(281,568)
City's net pension liability	$ 31,505
Plan fiduciary net position as a percentage of the total pension liability	89.9%

Actuarial assumptions

The total pension liability was determined by an actuarial valuation as of June 30, 2019, 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 1997-2015 Mortality Table projected for future mortality improvement utilizing Society of Actuaries Scale MP-2018. Mortality rates for disability retirements were based on CalPERS 1997-2015 Mortality Table for non-work Disabled Retirees for Miscellaneous and CalPERS 1997-2015 Mortality Table for work-related Disabled Retirees for Safety. Both tables were projected for future mortality improvement utilizing Society of Actuaries Scale MP-2018.

(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 70% equities and 30% fixed income. The geometric real rates of return were assumed to be 4.36% for large cap equities, 4.93% for international 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	$ 57,444	$ 31,505	$ 9,008

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)

	2019	2018	2017	2016	2015	2014
Total pension liability						
Service cost	$ 66	$ 92	$ 96	$ 103	$ 131	176
Interest	20,095	20,877	22,759	23,416	23,134	23,779
Differences between expected and actual experience	304	(2,457)	(3,701)	(1,173)	(8,783)	-
Changes of assumptions	(927)	862	(16,246)	-	23,117	-
Benefit payments, including refunds of member contributions	(31,134)	(31,583)	(32,171)	(32,683)	(33,791)	(33,688)
Net change in total pension liability	(11,596)	(12,209)	(29,263)	(10,337)	3,808	(9,733)
Total pension liability -- beginning	324,669	336,878	366,141	376,478	372,670	382,403
Total pension liability -- ending (a)	$ 313,073	$ 324,669	$ 336,878	$ 366,141	$ 376,478	372,670
Plan fiduciary net position						
Contributions -- employer	$ 7,507	$ 8,645	$ 8,645	$ 8,645	$ 9,183	9,649
Contributions -- member	49	55	63	146	82	161
Net investment income	18,537	20,982	26,803	7,799	13,375	40,317
Benefits payments, including refunds of member contributions	(31,134)	(31,583)	(32,171)	(32,683)	(33,791)	(33,688)
Net change in fiduciary net position	(5,041)	(1,901)	3,340	(16,093)	(11,151)	16,439
Plan fiduciary net position -- beginning	286,609	288,510	285,170	301,263	312,414	295,975
Plan fiduciary net position -- ending (b)	$ 281,568	$ 286,609	$ 288,510	$ 285,170	$ 301,263	312,414
Net pension liability -- ending (a) - (b)	$ 31,505	$ 38,060	$ 48,368	$ 80,971	$ 75,215	60,256
Plan fiduciary net position as a percentage of the total pension liability	89.94%	88.28%	85.64%	77.89%	80.02%	83.83%
Covered payroll	$ 678	$ 921	$ 1,049	$ 1,020	$ 1,180	$ 2,279
Net pension liability as a percentage of covered payroll	4646.76%	4132.46%	4610.87%	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 six fiscal years are presented.

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

(in thousands)

	Fiscal Year				
	2019	2018	2017	2016	2015
Actuarially determined contributions	$ 5,268	$ 8,267	$ 8,330	$ 8,645	$ 9,183
Contributions in relation to the actuarially determined contribution	$ 7,507	$ 8,645	$ 8,645	$ 8,645	9,183
Contribution deficiency (excess)	$ (2,239)	(378)	(315)	$ -	$ -
Covered payroll	$ 678	$ 921	$ 1,049	$ 1,020	$ 1,180
Contributions as a percentage of covered payroll	1107%	939%	824%	848%	778%

Notes to Schedule

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 above:

Actuarial cost method	Entry age normal for fiscal years 2015 - 2019
Amortization method	Level dollar payments over 13 years, open period for fiscal year 2019 Level dollar payments over 14 years, open period for fiscal years 2015 - 2018
Asset valuation method	3 year smoothed market value for fiscal years 2015 - 2019
Inflation	2.75% for fiscal year 2019 3.00% for fiscal years 2015 - 2018
Salary increases	2.75% CPI plus 0.5% merit for fiscal year 2019 3.00% CPI plus 0.5% merit for fiscal years 2015 - 2018
Investment rate of return	6.50% for fiscal years 2015 - 2019
Retirement age	For fiscal years 2015- 2019, 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.
Mortality	CalPERS 1997-2011 Mortality Tables with Scale MP-2016 for fiscal year 2019 CalPERS 1997-2011 Mortality Tables with Scale MP-2014 for fiscal year 2018 CalPERS 1997-2007 Mortality Tables with Scale MP-2014 for fiscal year 2017 CalPERS 1997-2007 Mortality Tables with Scale AA for fiscal years 2015 - 2016

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

(in thousands)

	Fiscal Year 2014		Fiscal Year 2013		Fiscal Year 2012		Fiscal Year 2011		Fiscal Year 2010	
Actuarially determined contributions	$	9,649	$	10,573	$	10,361	$	10,547	$	3,431
Contributions in relation to the actuarially determined contribution		9,649		10,573		10,361		10,547		3,431
Contribution deficiency (excess)	$	-	$	-	$	-	$	-	$	-
Covered payroll	$	2,279	$	2,279	$	2,959	$	4,132	$	5,302
Contributions as a percentage of covered payroll		423%		464%		350%		255%		65%

Notes to Schedule

The actuarial valuation was rolled forward from 6/30/2013 to 6/30/2014. As a result, the covered payroll used to calculate the contributions as a percentage of covered 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 for fiscal years 2010 - 2014
Amortization method	Level dollar payments over 14 years, open period for fiscal year 2014 Level dollar payments over 15 years, open period for fiscal years 2010 - 2013
Asset valuation method	3 year smoothed market value for fiscal years 2010 - 2014
Inflation	3.00% for fiscal years 2010 - 2014
Salary increases	3.00% CPI plus 0.5% merit for fiscal years 2010 - 2014
Investment rate of return	6.50% for fiscal years 2010 - 2014
Retirement age	For fiscal years 2010 - 2014, 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.
Mortality	CalPERS 1997-2007 Mortality Tables with Scale AA for fiscal years 2013 - 2014 CalPERS 1997-2007 Mortality Tables for fiscal year 2012 1994 Group Annuity Mortality Tables for fiscal years 2010 - 2011

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

(in thousands)

	2019	2018	2017	2016	2015	2014
Annual money weighted rate of return, net of investment expense	7.08%	7.96%	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 six fiscal years are presented.

ADDITIONAL INFORMATION

SACRAMENTO CITY EMPLOYEES' RETIREMENT SYSTEM
LISTING OF INVESTMENTS
JUNE 30, 2019

Investments	Maturity Date	Quantity	Amortized Cost	Fair Value
US GOVERNMENT OBLIGATION				
Fannie Mae Pool #256393	9/1/2036	$ 60,746	$ 60,547	$ 68,679
Gnma Pool #320296	3/15/2022	6,995	6,868	7,011
Gnma Pool #329837	11/15/2022	7,465	7,351	7,735
Gnma Pool #439515	3/15/2027	14,927	14,637	15,397
Gnma Pool #450066	12/15/2026	2,390	2,374	2,395
Gnma Pool #550718	11/15/2035	446,856	434,847	484,826
Gnma Pool #648348	10/15/2035	202,786	202,089	226,665
Sub-total			**728,713**	**812,707**
CORPORATE BONDS				
Apple Inc	2/9/2027	3,000,000	3,000,000	3,150,090
Barclays Bank Plc	2/17/2032	5,000,000	5,000,000	4,967,950
Citigroup Inc	7/22/2036	5,000,000	5,000,000	4,797,850
Goldman Sachs Group Inc	8/31/2036	3,000,000	2,983,910	2,811,720
Lehman Bros Hldg Inc Escrow	12/29/2099	2,500,000	1,448,500	41,750
Lloyds Tsb Bk Plc	1/21/2021	5,000,000	5,051,234	5,299,650
Verizon Communications Inc	3/15/2034	2,000,000	2,217,666	2,198,940
Sub-total			**24,701,310**	**23,267,950**
EQUITIES - LARGE CAP GROWTH				
Alphabet, Inc. Cl C Capital Stock		1,000	491,152	1,080,910
Amazon Com Inc		1,000	494,796	1,893,630
Apple Inc		5,500	504,047	1,088,560
Boeing Co Com		3,500	478,340	1,274,035
Facebook Inc Cl A		5,500	378,985	1,061,500
Home Depot Inc		5,000	455,328	1,039,850
MasterCard Incorporated		6,000	871,859	1,587,180
Paypal Hldgs Inc Com		10,000	737,164	1,144,600
Select Sector Spdr Tr Communication		92,000	4,426,796	4,528,240
Sub-total			**8,838,469**	**14,698,505**
EQUITIES - FIXED ALTERNATIVE EQUITIES				
Bank of America Corp		60,000	916,178	1,740,000
Chevron Corporation		12,000	1,346,621	1,493,280
General Mtrs Co Com		27,000	870,518	1,040,310
Home Depot Inc		7,000	1,029,646	1,455,790
International Bus Mach		13,000	1,936,869	1,792,700
JPMorgan Chase & Co		14,000	944,392	1,565,200
Lockheed Martin Corp		3,000	406,415	1,090,620
Merck & Co Inc (new)		20,000	1,042,959	1,677,000
Pfizer Inc		38,000	933,969	1,646,160
Select Sector Spdr Tr Communication		30,000	1,463,571	1,476,600
Union Pac Corp Com		9,000	985,804	1,521,990
United Technologies		7,000	811,149	911,400
Sub-total			**12,688,091**	**17,411,050**

EXCHANGE TRADED FUNDS				
Invesco QQQ Trust Series 1 ETF		3,500	549,205	653,590
Ishares Inc Core Msci Emkt		63,000	3,505,041	3,240,720
Ishares Msci Acwi Us Etf		300,000	13,206,092	14,028,000
Ishares Msci Eafe ETF		45,000	3,227,744	2,957,850
Ishares Preferred & Income Securities ET		40,000	1,562,803	1,474,000
Ishares Russell 2000 ETF		15,000	1,667,104	2,332,500
Ishares Tr Nasdq Bio Indx		20,000	2,020,811	2,182,000
Ishares Tr Russell 1000 Val		286,000	32,850,264	36,384,920
Ishares Tr Transp Ave Idx		18,000	2,771,844	3,387,420
Ishares Tr U.S. Real Es Etf		10,000	786,336	873,100
Ishares Tr Us Telecom Etf		40,000	1,204,984	1,178,000
Ishares Us Home Cons Etf		20,000	533,755	764,400
Select Sector Spdr Tr Rl Est Sel Sec		51,000	1,633,293	1,875,270
Select Sector Spdr Tr Sbi Cons Discr		52,000	3,730,699	6,198,400
Select Sector Spdr Tr Sbi Cons Stpls		142,700	7,264,543	8,286,589
Select Sector Spdr Tr Sbi Healthcare		134,000	10,524,789	12,413,760
Select Sector Spdr Tr Sbi Int-Energy		116,400	7,690,959	7,415,844
Select Sector Spdr Tr Sbi Int-Finl		247,000	5,087,006	6,817,200
Select Sector Spdr Tr Sbi Int-Inds		85,000	5,442,074	6,580,700
Select Sector Spdr Tr Sbi Int-Utils		51,500	2,282,104	3,070,945
Select Sector Spdr Tr Sbi Materials		47,000	2,696,557	2,749,500
Select Sector Spdr Tr Technology		191,000	10,039,236	14,905,640
Spdr Bbg Barc ST High Yield Bond ETF		22,000	598,809	599,060
Spdr Series Trust Kbw Regn Bk Etf		73,000	3,455,254	3,900,390
Spdr Series Trust S&p Bk Etf		52,200	1,744,271	2,263,392
Spdr Series Trust S&p Retail Etf		44,000	1,895,086	1,864,280
Spdr Tr Unit Ser 1		40,000	9,295,793	11,720,000
Vaneck Vectors Etf Tr Semiconductor Et		37,000	1,968,187	4,076,660
Sub-total			**139,234,642**	**164,194,130**
MUNICIPAL BONDS				
Bay Area Toll Auth Calif Toll Toll Brid	4/1/2030	1,000,000	1,013,650	1,236,030
California St Go Bds	11/1/2026	2,000,000	2,000,000	2,620,500
California St Go Bds	3/1/2036	5,000,000	5,235,271	5,188,200
Houston Tex Arpt Sys Rev Arpt Sys	1/1/2028	5,000,000	4,755,483	6,040,250
Millbrae Calif Sch Dist	7/1/2020	500,000	510,652	516,190
Moreland Calif Sch Dist	8/1/2030	1,235,000	1,235,000	1,336,727
Pasadena Calif Wtr Rev	6/1/2031	3,000,000	2,967,855	3,098,190
Pasadena Calif Wtr Rev	6/1/2033	2,000,000	1,977,954	2,054,320
Riverside Cnty Calif Redev Agy Tax Alloc	10/1/2037	3,000,000	3,010,008	3,207,240
Sacramento Calif Pub Fing Auth	4/1/2050	5,000,000	5,289,860	6,102,500
San Francisco Calif City & Cnt Tax Alloc	8/1/2039	5,000,000	5,135,792	7,789,750
Union City Calif Cmnty Redev A	10/1/2030	250,000	245,920	264,055
Univ Calif Regts Med Ctr Poole	5/15/2031	2,350,000	2,448,180	2,991,668
University Calif Revs For Prev	5/15/2021	1,000,000	1,000,000	999,640
University Calif Revs For Prev	5/15/2031	5,755,000	6,314,821	6,568,987
Vermont State Build America Bonds	8/15/2027	2,700,000	2,679,340	2,761,263
Sub-total			**45,819,788**	**52,775,510**
MORTGAGE LOANS				
Walgreens Drugs/Adahi, Inc	5/1/2024	1,307,319	1,307,319	1,307,319
Sub-total			**1,307,319**	**1,307,319**
Total			**$ 233,318,331**	**$ 274,467,171**

APPENDIX A

City of Sacramento

Bartel Associates, LLC

City of Sacramento

Sacramento City Employees' Retirement System

June 30, 2019
Actuarial Valuation

November 22, 2019

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, 2019 actuarial valuation of the Sacramento City Employees' Retirement System (SCERS).

The purpose of this valuation is to:

- Determine the System's June 30, 2019 Funded Status, and
- Calculate the fiscal year 2020/21 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

TABLE OF CONTENTS

SECTION 1
EXECUTIVE SUMMARY

Following are the valuation results. See notes following the table for a description of terms. Results from the June 30, 2018 valuation are provided for comparative purposes.

	--------*amounts in $000's*---------		
	June 30, 2018	**June 30, 2019**	**% change**
■ **Participant Counts**			
• Actives	11	8	-27.3%
• Terminated Vesteds & Reciprocals	9	8	-11.1%
• Service Retirees	581	555	-4.5%
• Disableds	116	104	-10.3%
• Beneficiaries	312	314	0.6%
• Total	1,029	989	-3.9%
■ **Actuarial Liabilities**			
• Present Value of Projected Benefits	$ 324,825	$ 313,179	-3.6%
• Actuarial Accrued Liability	324,669	313,073	-3.6%
■ **Assets**			
• Market Value of Assets	286,609	281,568	-1.8%
• Approximate Annual Rate of Return	7.6%	6.7%	
• Actuarial Value of Assets	281,126	277,234	-1.4%
• Approximate Annual Rate of Return	7.5%	7.3%	
■ **Plan Funded Status**			
• Actuarial Accrued Liability	324,669	313,073	-3.6%
• Actuarial Value of Plan Assets	281,126	277,234	-1.4%
• Unfunded Actuarial Accrued Liability	43,543	35,839	-17.7%
• Funded Ratio	86.6%	88.6%	2.3%
• Funded Ratio, Market Value Basis	88.3%	89.9%	1.8%

	2019/20	**2020/21**	**% change**
■ **Annual Cost**[1]	4,410	3,822	-13.3%
■ **Annual Cost (% Proj. Plan Payroll)**[1]	876.6%	1066.7%	
■ **Annual Cost (% Proj. City Payroll)**	1.4%	1.1%	

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 8 active members (out of a total plan membership of 989) remain.

Since the last valuation, the plan experienced overall losses on liabilities and gains on market assets. Plan liabilities increased more than expected, by $0.3 million. This was mostly due to a greater COLA than expected[2], but was offset by retirees and beneficiaries not living as long as expected. Market value return on assets was greater than expected, about 6.7% for the year, which combined with contributions greater than expected[3] resulted in a gain of $4.5 million on the actuarial (smoothed) value of assets.

One assumption was changed since the prior valuation.

- The mortality improvement projection was updated to the Society of Actuaries most recent table, MP-2018. This decreased liabilities $0.9 million.

After the assumption changes, the July 1, 2019 total plan unfunded actuarial accrued liability (UAAL) is $35.8 million, as compared to expected UAAL of $41.0 million.

The plan's funded ratio on an actuarial value of assets basis is 88.6%, an increase from 86.6% in the prior valuation. The plan's funded ratio using market value of assets basis is 89.9%, an increase from 88.3% in the prior valuation.

We recommend changing the amortization period to a rolling 12-year period for the 2020/21 recommended contribution. The average life expectancy of the plan's retirees is now just under 12 years. We believe a 12-year amortization will result in the unfunded liability being paid off in a period of time relating to the remaining lifetime of plan participants, while also providing sufficient contribution smoothing for plan management. The 3-year asset smoothing method provides some smoothing of contribution volatility. The City's contribution has decreased from $4.410 million for fiscal year 2019/20 to $3.822 million for fiscal year 2020/21. The prior valuation projected a 2020/21 contribution of $4.025 million. The 2020/21 contribution is less than projected due to the factors discussed above.

[2] The CPI used for COLA increases was 3.9%, so the full 3% COLA was paid, and COLA banks were increased. The valuation assumes CPI of 2.75%.

[3] The City's ADC was $5.268 million but $7.507 million was contributed.

SECTION 1
EXECUTIVE SUMMARY

Discussion of Plan Risks

Actuarial Standard of Practice No. 51, Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions, requires the actuary to assess and disclose the risk that actual future measurements may differ significantly from expected future measurements.

This plan is considered a very mature pension plan since almost all of its liabilities are for retirees, and there are almost no remaining active employees with very little associated payroll. The following table presents various measures illustrating the plan's maturity:

	June 30, 2018	June 30, 2019
■ **Maturity Ratios**		
• Inactive AAL/total AAL	98.5%	98.9%
• Inactive participant count/total count	98.9%	99.2%
• Benefit payments/market value of assets	10.9%	10.9%
• Benefit payments/employer contributions	693.4%	791.5%

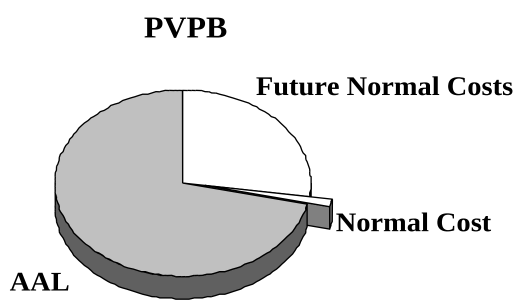
A very mature pension plan presents unique risks. The plan has negative cash flow (benefit payments exceed contributions), and benefit payments are relatively large compared to the asset value. The plan's investment manager must carefully manage the plan's liquidity needs as the plan "winds down" over the next 50 or more years. In addition to investment risk (investment returns being different than expected), asset/liability mismatch risk (changes in asset values not matched by changes in liabilities) could be significant for this plan. The plan is also subject to longevity risk (the potential that participants will live longer than projected) but we believe this risk is less significant than investment and asset/liability mismatch risk.

The scope of this valuation did not include a risk assessment - an evaluation of the potential impacts of these factors on the plan's funded status or projected employer contributions. However, we have included the following to assist in the plan's management:

- Table of expected benefit payments for the next 50 years
- Sensitivity analysis: Contributions calculated under different discount rates
- Sensitivity analysis: Contributions calculated under amortization periods

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, 2018	June 30, 2019
Present Value of Projected Benefits		
■ Active Employees	$ 5,072	$ 3,423
■ Vested Terminated & Reciprocals	1,226	927
■ Service Retirees	231,861	225,202
■ Disabled Participants	34,891	30,748
■ Beneficiaries	51,774	52,878
■ Total	324,825	313,179
Actuarial Accrued Liability		
■ Active Employees	$ 4,916	$ 3,318
■ Vested Terminated & Reciprocals	1,226	927
■ Service Retirees	231,861	225,202
■ Disabled Participants	34,891	30,748
■ Beneficiaries	51,774	52,878
■ Total	324,669	313,073

	2018/19	2019/20
Normal Cost		
■ Employer Normal Cost (beginning of year)	$ 21	$ 15

	June 30, 2018	June 30, 2019
Plan Funded Status		
■ Total Actuarial Accrued Liability	$ 324,669	$ 313,073
■ Actuarial Value of Plan Assets	281,126	277,234
■ Unfunded Actuarial Accrued Liability	43,543	35,839
■ Funded Ratio	86.6%	88.6%
■ Market Value of Assets	286,609	281,568
■ Funded Ratio – Market Value Basis	88.3%	89.9%

SECTION 2
LIABILITY INFORMATION & FUNDED STATUS

Details of the June 30, 2019 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	$ -	$ 3,423	$ 3,423
■ Vested Terminated & Reciprocals	-	927	927
■ Service Retirees	16,449	208,753	225,202
■ Disabled Participants	13,071	17,677	30,748
■ Beneficiaries	16,128	36,750	52,878
■ Total	45,648	267,531	313,179
Actuarial Accrued Liability			
■ Active Employees	-	3,318	3,318
■ Vested Terminated & Reciprocals	-	927	927
■ Service Retirees	16,449	208,753	225,202
■ Disabled Participants	13,071	17,677	30,748
■ Beneficiaries	16,128	36,750	52,878
■ Total	45,648	267,425	313,073

	Safety	Miscellaneous	Total
Normal Cost			
■ Employer Normal Cost (on June 30, 2019)	$ -	$ 15	$ 15

SECTION 2
LIABILITY INFORMATION & FUNDED STATUS

Details of the June 30, 2019 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	$ -	$ 3,423	$ 3,423
■ Vested Terminated & Reciprocals	67	860	927
■ Service Retirees	5,596	219,606	225,202
■ Disabled Participants	1,182	29,567	30,748
■ Beneficiaries	4,647	48,231	52,878
■ Total	11,492	301,687	313,179
Actuarial Accrued Liability			
■ Active Employees	-	3,318	3,318
■ Vested Terminated & Reciprocals	67	860	927
■ Service Retirees	5,596	219,606	225,202
■ Disabled Participants	1,182	29,567	30,748
■ Beneficiaries	4,647	48,231	52,878
■ Total	11,492	301,581	313,073

	Section 175	Sections 302 & 399	Total
Normal Cost			
■ Employer Normal Cost (on 6/30/19)	$ -	$ 15	$ 15

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, 2017 through June 30, 2018 and the June 30, 2018 through June 30, 2019 market value of assets. Numbers may not add due to rounding.

(amounts in $000's)

	2017/18		2018/19	
■ Beginning of Year Balance:		$ 288,510		$ 286,609
• Member Contributions	$ 55		$ 49	
• City Contributions	8,645		7,507	
• Investment Income	22,127		19,638	
■ Total Additions		30,827		27,194
• Benefit Payments	31,583		30,880	
• Member Refunds	-		254	
• Investment Expenses	1,145		1,101	
■ Total Deductions		32,728		32,235
■ Net Assets at End of Year		286,609		281,568
■ Approximate Return on Assets		7.6%		6.7%

SECTION 3
ASSET INFORMATION

Asset Allocation – Market Value of Assets

The July 1, 2019 trust asset allocation is provided by the City of Sacramento and based on an allocation strategy of 30% fixed income and 70% equity. Details are shown below.

(amounts in $000's)

		Market Value	Percentage
■ Cash & Short Term Investments		$ 8,344	3.0%
■ Receivables		1,300	0.5%
■ Investments			
• US Agencies	$ 813		0.3%
• Corporate Bonds	23,268		8.3%
• Equities	32,110		11.4%
• Exchange Traded Funds	164,194		58.3%
• Mortgage Loans	1,307		0.5%
• Municipal Bonds	52,775		18.7%
■ Total Investments		274,467	
■ Total Assets		284,111	
■ Other Liabilities Payable		(2,543)	-0.9%
■ Net Pension Benefit Trust Assets		281,568	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 3, 2018, as shown below. The fund is rebalanced each year.

	Prior Allocation		Current Allocation	
■ Fixed Bonds/Real Estate	35.0%		30.0%	
Total Fixed		35.0%		30.0%
■ Large Cap Growth	35.0%		35.0%	
■ Equity Income	25.0%		27.5%	
■ International Equities	5.0%		7.5%	
Total Equity		65.0%		70.0%
Total Fixed & Equity		100.0%		100.0%

SECTION 3
ASSET INFORMATION

Discount Rate Development

Bartel Associates modeled the nominal rate of return for the fund, based upon our current capital market assumptions, which include mean returns, standard deviation of returns, and correlation coefficients, as well as our assumed inflation rate. Our modeling showed a 50% likelihood that returns would average (geometric average) at least 6.75% per year and a 55% likelihood that they would average at least 6.39% per year. After adjusting for expenses and rounding, we recommend a 6.50% discount rate for the valuation:

Confidence Level	**50%**	**55%**	**60%**
■ Inflation Adjusted Return	6.75%	6.39%	6.06%
■ Investment Expenses[4]	0.10%	0.10%	0.10%
■ Net Return after Expenses	6.65%	6.29%	5.96%
■ **Discount Rate Assumption**	**6.50%**		

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

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)

	2018/19
■ **Actuarial Value of Assets, Beginning of Year**	$ 281,126
• Contributions	7,556
• Expected Earnings	17,519
• Benefit Payments	(31,134)
■ Expected Actuarial Value of Assets, End of Year	275,067
■ Market Value of Assets, End of Year	281,568
■ Difference between MVA & Expected AVA	6,501
■ **Preliminary Actuarial Value of Assets, End of Year**	
(Expected AVA+ 1/3 Difference)	277,234
■ Actuarial Value of Assets Corridor	
• Cap: 115% of Market Value	323,803
• Min: 85% of Market Value	239,333
■ **Actuarial Value of Assets, End of Year**	
(No greater than Cap, not less than Min)	277,234
■ Approximate Annual Rate of Return	7.3%

SECTION 4
CONTRIBUTION DEVELOPMENT

Actuarially Determined Contribution

Following is the development of the 2020/21 Actuarially Determined Contribution. The 2019/20 Actuarially Determined Contribution was calculated in the June 30, 2018 actuarial valuation and is shown for comparison.

(amounts in $000's)

Contribution Year	2019/20	2020/21
■ Actuarially Determined Contribution		
• Employer Normal Cost	$ 14	$ 10
• UAAL Amortization[5]	4,396	3,812
• Total Cost	4,410	3,822
■ Projected Plan Payroll	503	358
■ Actuarially Determined Contribution (as a percent of plan payroll)		
• Employer Normal Cost	2.9%	2.9%
• UAAL Amortization	873.7%	1063.8%
• Total Contribution	876.6%	1066.7%
■ Projected Total City Payroll	324,035	363,821
■ Actuarially Determined Contribution (as a percent of total City payroll)		
• Employer Normal Cost	0.0%	0.0%
• UAAL Amortization	1.4%	1.1%
• Total Contribution	1.4%	1.1%

5 The Unfunded Actuarial Accrued Liability (UAAL) as of the beginning of the contribution year is being amortized as a level dollar amount over a rolling 13-year period for 2019/20 and a rolling 12-year period for 2020/21. As the plan continues to mature, this amortization period will be monitored.

SCHEDULE OF FUTURE CONTRIBUTIONS

Below are the historic and projected contributions and benefit payments. City contributions for years ending 6/30/2022 and later are estimated assuming 6/30/20 and subsequent market value of assets earn 6.50% and assuming the Actuarially Determined Contribution is contributed each year. These contributions are designed to achieve 100% funding of the system.

Year Ending[6]	Member Contributions	City Contributions	Benefit Payments
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[7]	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	63,000	8,645,000	32,171,000
6/30/2018	55,000	8,645,000	31,583,000
6/30/2019	49,000	7,507,000	31,134,000
6/30/2020	*35,000*	4,410,000	*30,579,000*
6/30/2021	*24,000*	*3,822,000*	*30,250,000*
6/30/2022	*14,000*	*3,469,000*	*29,793,000*
6/30/2023	*9,000*	*3,175,000*	*29,266,000*
6/30/2024	*6,000*	*2,926,000*	*28,665,000*

6 Information prior to 6/30/2006 valuation is taken from prior actuary's valuation report. Member contributions and benefit payments for years ending 6/30/2020 and later are estimated.

7 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, 2018 Actual Value**	$ 324,669	$ 281,126	$ 43,543
■ **June 30, 2019 Expected Value**	313,685	272,726	40,959
■ COLA greater than expected	2,458		
■ Demographic (Gain)/Loss[8]	(2,142)		
■ Investment Gain		2,192	
■ Contributions greater than expected		2,316	
■ Total (Gain)/Loss			(4,193)
■ **June 30, 2019 Prior to Changes in Assumptions**	314,001	277,234	36,767
■ Change in Mortality Improvement Assumption	(927)		(927)
■ **June 30, 2019 Actual Value**	313,073	277,234	35,839

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

SECTION 7
SENSITIVITY ANALYSIS

The Plan's June 30, 2019 funded status and 2020/21 fiscal year contribution are shown below at 5.50%, 6.50%, and 7.50% discount rates.

(amounts in $000's)

Discount Rate	5.50%	Current 6.50%	7.50%
■ Present Value of Projected Benefits	$ 339,151	$ 313,179	$ 290,657
■ Funded Status			
• Actuarial Accrued Liability	339,012	313,073	290,576
• Actuarial Value of Assets	277,234	277,234	277,234
• Unfunded Actuarial Accrued Liability	61,778	35,839	13,342
■ Funded Ratio	81.8%	88.6%	95.4%
■ 2020/21 Actuarially Determined Contribution			
• Employer Normal Cost	21	10	3
• UAAL Amortization (12 years)	6,682	3,812	1,025
• Total Contribution	6,703	3,822	1,028
• Total Employer Contribution (as a percent of Plan payroll)	1870.6%	1066.7%	286.9%
• Total Employer Contribution (as a percent of total City payroll)	1.8%	1.1%	0.3%

The Plan's 2020/21 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 12-year period, as well as for 14, 13 and 10 year periods.

The average life expectancy of retirees is currently 12 years. We recommend using a 12 year amortization period beginning with the current valuation.

(amounts in $000's)

Amortization Years	14	13	Recom-mended 12	10
■ 2020/21 Actuarially Determined Contribution				
• Employer Normal Cost	$ 10	$ 10	$ 10	$ 10
• UAAL Amortization	3,451	3,617	3,812	4,327
• Total Employer Contribution	3,461	3,627	3,822	4,337
• Total Employer Contribution (as a percent of Plan payroll)	965.8%	1012.2%	1066.7%	1210.3%
• Total Employer Contribution (as a percent of total City payroll)	1.0%	1.0%	1.1%	1.2%

SECTION 8
HEADCOUNT AND BENEFIT PAYMENT PROJECTION

Headcount and Benefit Payment Projection

Fiscal Year Ending June 30,	Active Count	Term Vested Count	Retiree Count	Annual Benefit Payments (000's)
2020	8	8	973	$ 30,579
2021	5	8	945	30,250
2022	3	8	912	29,793
2023	2	8	877	29,266
2024	1	8	841	28,665
2025	1	8	804	27,972
2026	0	8	766	27,207
2027	0	8	728	26,403
2028	0	8	691	25,564
2029	0	8	653	24,697
2030	0	7	616	23,803
2031	0	7	580	22,882
2032	0	7	545	21,935
2033	0	7	510	20,962
2034	0	7	476	19,962
2035	0	7	443	18,936
2036	0	6	410	17,886
2037	0	6	378	16,816
2038	0	6	348	15,729
2039	0	5	318	14,631
2040	0	5	289	13,529
2041	0	5	261	12,431
2042	0	4	235	11,345
2043	0	4	210	10,280
2044	0	3	186	9,246
2045	0	3	164	8,251
2046	0	3	143	7,304
2047	0	2	124	6,413
2048	0	2	107	5,585
2049	0	2	91	4,824

SECTION 8
HEADCOUNT AND BENEFIT PAYMENT PROJECTION

Fiscal Year Ending June 30,	Active Count	Term Vested Count	Retiree Count	Annual Benefit Payments (000's)
2050	0	1	78	$ 4,132
2051	0	1	65	3,511
2052	0	1	54	2,961
2053	0	1	45	2,479
2054	0	0	37	2,063
2055	0	0	30	1,709
2056	0	0	25	1,413
2057	0	0	20	1,169
2058	0	0	16	971
2059	0	0	13	811
2060	0	0	11	685
2061	0	0	9	585
2062	0	0	7	508
2063	0	0	6	449
2064	0	0	5	404
2065	0	0	4	369
2066	0	0	4	342
2067	0	0	3	319
2068	0	0	3	301
2069	0	0	3	284

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:

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

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.

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.

We recommend amortizing the current unfunded AAL over a 12-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 (2020/21). The June 30, 2018 valuation generated a contribution for fiscal year 2019/20.

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 7/1/2019. We reviewed the data, but did not perform an audit.

Basis for Assumptions

Mortality assumptions are based on CalPERS 1997-2015 experience study, since that study is based on populations similar to this plan. Mortality improvement is the Society of Actuaries Scale MP-2018. Inflation is based on our estimate for the plan's very long time horizon. The salary merit assumption is based on our expectation of overall payroll growth, due to the current age of remaining employees.

Retirement and disablement rates are insignificant due to the age of the remaining participants and are based on rates used historically.

The Social Security offset, marriage, retirement age for deferred vesteds, and reciprocal assumptions are based in part on plan experience. Due to the small number and age of remaining employees and deferred vested, these assumptions are not significant.

Actuarial Assumptions

Assumptions used in the valuation are as follows:

- **Discount Rate**

  6.50% net of investment expenses[9]. See page 9 for derivation.

- **Inflation**

  2.75%

- **Salary Scale**

  2.75% CPI

  0.50% Merit

- **Social Security Wage Base**

  3.00%

- **Termination**

  None assumed. All active employees are retirement-eligible.

- **Retirement**

  Rates vary based on age. Sample rates follow:

Age	Non Sec 175
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:

	Job Related		Ordinary	
	Male	Female	Male	Female
59	.00612	.00336	.01683	.00924
60	.00639	.00351	.01761	.00969
61	.00000	.00000	.00000	.00000

9 Administrative expenses are not paid from plan assets.

- **Healthy Mortality**

  CalPERS 1997-2015 Pre-Retirement Mortality table for males and females and CalPERS 1997-2015 Post-Retirement Mortality table for males and females. Sample rates are as follows:

	Pre-Retirement		Post-Retirement	
Age	Male	Female	Male	Female
50	0.12%	0.08%	0.44%	0.39%
60	0.26%	0.17%	0.75%	0.52%
70	0.62%	0.39%	1.50%	1.06%
80	1.66%	0.94%	4.64%	3.49%
90	n/a	n/a	14.94%	11.38%
100	n/a	n/a	35.37%	30.62%

- **Post-Retirement Disabled Mortality**

  For Miscellaneous retirees, CalPERS 1997-2015 Non-Work-Related Disability table for males and females. For Safety retirees, CalPERS 1997-2015 Work-Related Disability table for males and females. Sample rates are as follows:

	Non-Work-Related		Work-Related	
Age	Male	Female	Male	Female
50	1.40%	1.23%	0.44%	0.39%
60	2.42%	1.52%	0.75%	0.52%
70	3.77%	2.50%	1.80%	1.27%
80	7.32%	5.38%	5.57%	4.18%
90	16.74%	14.92%	16.43%	12.52%
100	35.37%	35.05%	35.37%	30.62%

- **Mortality Improvement Projection**

  Post-retirement mortality projected fully generational with Society of Actuaries Scale MP-2018.

  Prior valuation used mortality projected fully generational with Society of Actuaries Scale MP-2017.

- **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.

- **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, 2018 and June 30, 2019 actuarial valuations.

	June 30, 2018	June 30, 2019
Participant Counts		
• Actives	11	8
• Terminated Vesteds	6	5
• Reciprocals	3	3
• Service Retirees	581	555
• Disableds	116	104
• Beneficiaries[10]	312	314
• Total	1,029	989
Actives		
• Average Age	64.2	65.0
• Average Service	36.3	35.9
• Salary		
➢ Total	$ 744,615	$ 536,145
➢ Average	67,692	67,018
• Overall City Payroll	303,957,000	341,277,000
Terminated Vesteds & Reciprocals		
• Average Age	68.3	69.0
Retirees, Disableds & Beneficiaries		
• Average Age	78.2	78.8
• Average Monthly Benefit	$ 2,599	$ 2,652
• Life expectancy	12.1	11.8

10 The June 30, 2019 valuation includes one former spouse of a deceased retiree whom the City has not been able to contact and is not yet receiving benefits.

June 30, 2019 Participant Data

Following summarizes participant demographic information for the June 30, 2019 actuarial valuation, broken out by employee category and benefit section.

	Safety		Miscellaneous		
	Section 175	Section 302 & 399	Section 175	Section 302 & 399	Total
■ **Actives**					
• Count	-	-	-	8	8
• Average Age	n/a	n/a	n/a	65.0	65.0
• Average Service	n/a	n/a	n/a	35.9	35.9
• Projected Salary					
➢ Average	$ -	$ -	$ -	67,018	67,018
➢ Total (000's)	-	-	-	536	536
■ **Vested Terms & Reciprocals**					
• Count	-	-	1	7	8
• Average Age	n/a	n/a	68.6	69.0	69.0
■ **All Inactives**					
• Count	23	148	32	770	973
• Average Age	86.7	83.3	83.2	77.5	78.8
• Avg. Monthly Benefit	$2,541	$3,152	$1,825	$2,594	$2,652
■ **Service Retirees**					
• Count	8	41	14	492	555
• Average Age	89.1	88.8	82.8	76.8	78.0
• Average Retirement Age	54.2	54.9	63.2	59.7	59.3
• Avg. Monthly Benefit	$2,954	$5,029	$2,277	$3,125	$3,242
■ **Disabled Retirees**					
• Count	3	36	4	61	104
• Average Age	91.4	77.0	83.3	74.8	76.4
• Average Retirement Age	52.1	41.1	50.0	48.8	46.3
• Avg. Monthly Benefit	$3,084	$2,839	$1,369	$2,183	$2,405
■ **Beneficiaries**					
• Count	12	71	14	217	314
• Average Age	84.0	83.3	83.6	79.9	81.0
• Avg. Monthly Benefit	$2,129	$2,227	$1,504	$1,504	$1,691

Data Reconciliation
6/30/2018 to 6/30/2019

		Terminated		Receiving Payments			
	Actives	Vested	Reciprocal	Disabled	Benefic.	Retirees	Total
■ **June 30, 2018**	11	6	3	116	312	581	1,029
• New Hires	-	-	-	-	-	-	-
• Disabled	-	-	-	-	-	-	-
• Terminated	-	-	-	-	-	-	-
• Deceased	-	-	-	(12)	(18)	(29)	(59)
• New Beneficiaries	-	-	-	-	20	-	20
• Retired	(3)	-	-	-	-	3	-
• Adjustment/Cash Out	-	(1)	-	-	-	-	(1)
■ **June 30, 2019**	8	5	3	104	314	555	989

Active Age/Service

Following are active counts by age and service groups:

	Service							
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30 & Over**	**Total**
Under 25	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	-
60-64	-	-	-	1	-	-	4	5
65 & Over	-	-	-	-	-	-	3	3
Total	-	-	-	1	-	-	7	8

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	-	2	2	4
	Avg. Benefit	-	2,732	1,959	2,346
70-74	Count	1	14	13	28
	Avg. Benefit	7,123	3,081	1,800	2,631
75-79	Count	4	11	12	27
	Avg. Benefit	2,712	2,334	2,224	2,341
80-84	Count	4	6	17	27
	Avg. Benefit	4,625	3,078	2,251	2,786
85 & Over	Count	40	6	39	85
	Avg. Benefit	4,833	3,120	2,343	3,570
Total	Count	49	39	83	171
	Avg. Benefit	4,690	2,858	2,213	3,070

Miscellaneous

Age		Service Retirees	Disability Retirees	Beneficiaries	Total
Under 50	Count	-	-	1	1
	Avg. Benefit	-	-	689	689
50-54	Count	-	-	2	2
	Avg. Benefit	-	-	1,635	1,635
55-59	Count	-	-	2	2
	Avg. Benefit	-	-	722	722
60-64	Count	19	5	13	37
	Avg. Benefit	3,263	2,547	1,164	2,429
65-69	Count	81	17	18	116
	Avg. Benefit	3,328	2,315	1,465	2,890
70-74	Count	140	13	42	195
	Avg. Benefit	3,229	2,383	1,615	2,825
75-79	Count	100	8	25	133
	Avg. Benefit	2,968	1,884	1,713	2,667
80-84	Count	81	13	42	136
	Avg. Benefit	3,070	1,981	1,743	2,556
85 & Over	Count	85	9	86	180
	Avg. Benefit	2,828	1,638	1,356	2,065
Total	Count	506	65	231	802
	Avg. Benefit	3,102	2,133	1,504	2,563

APPENDIX B

City of Sacramento

BARTEL ASSOCIATES, LLC

City of Sacramento

Sacramento City Employees' Retirement System

June 30, 2019
GASBS 67 & 68 Reporting

November 22, 2019

BARTEL ASSOCIATES, LLC

GASBS 67 & 68 REPORTING

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

This report presents reporting and disclosure information for the Sacramento City Employees' Retirement System (SCERS) for the fiscal year ending June 30, 2019 to assist the City in preparing financial statement information in accordance with Governmental Accounting Standards Board Statements No. 67 and 68 (GASBS 67 and 68).

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

This report is based on our June 30, 2019 actuarial valuation of the System and our report dated October 2019 which contains complete details of that valuation and is to be considered a part of this report.

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

Respectfully submitted,

Mary Elizabeth Redding

Mary Elizabeth Redding, FSA, MAAA, EA
Vice President

Deanna Van Valer

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

Katherine Moore

Katherine Moore, ASA, MAAA
Associate Actuary

TABLE OF CONTENTS

SECTION 1
GASBS 67 & 68 APPLICABLE DATES

Applicable Dates and Periods

Fiscal Year End	June 30, 2019	
Reporting Standard	**GASBS 67**	**GASBS 68**
■ Reporting date[1]	June 30, 2019	June 30, 2019
■ Reporting period	FY 2019	FY 2019
■ Measurement date[2]	N/A	June 30, 2019
■ Measurement period	N/A	July 1, 2018 to June 30, 2019
■ Actuarial valuation date[3]	June 30, 2019	June 30, 2019

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	
	6/30/19	**6/30/18**
■ Total pension liability (TPL)	$ 313,073	$ 324,669
■ Fiduciary net position (FNP)	281,568	286,609
■ Net pension liability (NPL)	31,505	38,060
■ Funded status (FNP/TPL)	89.9%	88.3%

Significant Assumptions and Other Inputs Used to Measure Total Pension Liability at 6/30/19:

■ Discount Rate	■ 6.50%, net of investment expenses
■ Inflation Rate	■ 2.75%
■ Salary Scale	■ 3.25%
■ Mortality Assumption for Service retirements & beneficiaries	■ CalPERS 1997-2015 Post-Retirement Mortality Table projected fully generational with Society of Actuaries Scale MP-2018.
■ Mortality Assumption for Disability retirements	■ CalPERS 1997-2015 Mortality Table for non-work Disabled Retirees for Miscellaneous and CalPERS 1997-2015 Mortality Table for work-related Disabled Retirees for Safety. Both tables were projected fully generational with Society of Actuaries Scale MP-2018.

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

Mortality improvement was changed from fully generational projection with Society of Actuaries Scale MP-2017 to fully generational projection with Society of Actuaries Scale MP-2018.
CPI was greater than expected, leading to increased COLA banks and experience loss, which was mostly offset by demographic gains primarily due to more retiree and beneficiary deaths than expected.

Discount rate

The discount rate was set equal to the long-term expected rate of return. The long-term expected rate of return was used since current assets, future City contributions, and future member contributions are projected to be sufficient to cover all future benefit payments and expenses. This "crossover test" was performed in accordance with the requirements specified in GASB Statement 67, including a projection that the Plan's funding policy will remain unchanged[4]. No administrative expenses were assumed to be paid from Trust assets since the City Charter requires the City to pay all administrative expenses.

4 The current recommended policy includes a change in the amortization period from 12 years to 5 years when the average future life expectancy of plan participants is below 5 years.

The 6.50% long-term expected rate of return was derived based on the inflation assumption of 2.75% and a long-term asset allocation of 70% equities and 30% fixed income. The geometric real rates of return were assumed to be 4.36% for US large cap equities, 4.93% for international equities and 1.47% for fixed income.

Date of actuarial valuation
The June 30, 2019 Total Pension Liability is based on an actuarial valuation as of June 30, 2019.

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

	1% Decrease 5.50%	**Discount Rate 6.50%**	**1% Increase 7.50%**
Net Pension Liability (NPL)	$57,444	$31,505	$9,008

Schedule of Changes in Net Pension Liability & Related Ratios[5]
(Amounts in $000's)

Fiscal Year	2018/19
Total Pension Liability	
Service cost	$ 66
Interest	20,095
Changes of benefit terms	0
Differences between expected and actual experience	304
Changes of assumptions	(927)
Benefit payments	(31,134)
Net change in Total Pension Liability	(11,596)
Total Pension Liability at beginning of year	324,669
Total Pension Liability at end of year	313,073
Fiduciary Net Position	
Contributions - employer	7,507
Contributions - member	49
Net investment income	18,537
Benefit payments	(31,134)
Administrative expenses	0
Other income	0
Net change in Fiduciary Net Position	(5,041)
Fiduciary Net Position at beginning of year	286,609
Fiduciary Net Position at end of year	281,568
Net Pension Liability (Asset) at end of year	31,505
Fiduciary Net Position as percentage of Total Pension Liability	89.9%
Covered-employee payroll	678
Net Pension Liability as percentage of Covered-employee Payroll	4646.8%

Notes to Schedule of Changes in Net Pension Liability & Related Ratios
The Total Pension Liability as of June 30, 2019 is based on an actuarial valuation as of June 30, 2019.

Changes of Assumptions. In 2018/19, mortality improvement was changed to use Society of Actuaries Scale MP-2018.

Differences between actual and expected experience. The largest component for 2018/19 was the CPI was greater 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.

Employer Actuarially Determined Contribution[6]
(Amounts in $000's)

Fiscal Year	(1) Actuarially Determined Contribution (ADC)	(2) Employer Contributions in relation to the Actuarially Determined Contribution	(3) Contribution Deficiency (Excess) (1)-(2)	(4) Covered-Employee Payroll	(5) Employer Contribution / Covered-Employee Payroll (2)/(4)
2018/19	$ 5,268	$ 7,507	$ (2,239)	$ 678	1107.2%

Significant Methods and Assumptions Used in Calculation of ADC for 2018/19

Actuarial Assumption	FY 2018/2019
■ Actuarial valuation date	■ June 30, 2017
■ Actuarial cost method	■ Entry Age Normal, level percent of payroll
■ Amortization method	■ Level dollar amount
■ Amortization period	■ 13 years open
■ Asset method	■ Actuarial value of assets ■ Gains/losses recognized over 3 years ■ Corridor of 85% - 115% of market value of assets
■ Inflation	■ 2.75%
■ Discount rate	■ 6.50%, net of investment expenses
■ Salary scale	■ 3.25%
■ Mortality rate table	■ CalPERS' 1997-2011 Experience Study ■ Mortality projected fully generational with Scale MP-2016
■ All other	■ Same as used in determining total pension liability for 2018/19

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

Changes in Net Pension Liability/(Asset)

(Amounts in 000's)

	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability/ (Asset) (a) – (b)
■ Balances at FYE 6/30/2018	$ 324,669	$ 286,609	$ 38,060
■ Changes for the year:			
• Service cost	66		66
• Interest	20,095		20,095
• Change of assumptions	(927)		(927)
• Change of benefit terms	0		0
• Differences between expected and actual experience	304		304
• Contributions—employer		7,507	(7,507)
• Contributions—member		49	(49)
• Net investment income		18,537	(18,537)
• Benefit payments, including refunds of member contributions	(31,134)	(31,134)	0
• Administrative expense[7]	0	0	0
■ Net changes	(11,596)	(5,041)	(6,555)
■ Balances at FYE 6/30/2019	313,073	281,568	31,505

Pension Expense for Fiscal Year

(Amounts in 000's)

	2018/19
■ Pension Expense	$ 2,517

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

Balance of Deferred Outflows of Resources and Inflows of Resources as of June 30, 2019
(Amounts in 000's)

	Deferred Outflows of Resources	Deferred Inflows of Resources
■ Differences between expected and actual experience	$ 0	$ 0
■ Changes of assumptions and other inputs	0	0
■ Net difference between actual and projected earnings on investments	0	(3,728)
■ Employer contributions made subsequent to the Measurement Date	N/A	N/A
■ Total	0	(3,728)

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
2020	$ (333)
2021	(2,534)
2022	(728)
2023	(133)
2024	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 12.0 years of total expected future service divided by 989 plan participants, resulting in 0.012 years. Since the AERSL is less than 1.0, a recognition period of 1.0 year is used. Therefore all deferred outflows and inflows of resources for differences between actual and expected experience, and for changes in assumptions and other inputs, are fully recognized immediately. No recognition schedules are maintained for these amounts.

Recognition of Deferred Outflows and Inflows of Resources (cont.)

(Amounts in 000's)

Projected Versus Actual Earnings on Investments

Measurement Period	2014/15	2015/16	2016/17	2017/18	2018/19	Total
■ Initial amount*	$6,135	$11,007	$(9,028)	$(2,973)	$(673)	
■ Initial recognition period	5	5	5	5	5	
■ Amount recognized in pension expense for current and prior fiscal years:						
• 2014/15	1,227	0	0	0	0	$1,227
• 2015/16	1,227	2,201	0	0	0	3,428
• 2016/17	1,227	2,201	(1,806)	0	0	1,622
• 2017/18	1,227	2,201	(1,806)	(595)	0	1,027
• 2018/19	1,227	2,201	(1,806)	(595)	(135)	892
■ Amount recognized in pension expense for future fiscal years:						
• 2019/20	0	2,203	(1,806)	(595)	(135)	(333)
• 2020/21	0	0	(1,804)	(595)	(135)	(2,534)
• 2021/22	0	0	0	(593)	(135)	(728)
• 2022/23	0	0	0	0	(133)	(133)
• 2023/24	0	0	0	0	0	
■ Deferred Outflows/(Inflows) as of FYE 6/30/19	0	2,203	(3,610)	(1,783)	(538)	
■ Net Deferred Outflows/(Inflows) as of FYE 6/30/19						(3,728)

* For 2018/19 Projected earnings = $17,864, actual earnings = $18,537. Difference = ($673)

Components of GASBS 68 Pension Expense for Fiscal Year

(Amounts in 000's)

	FY 2018/19
Service cost	$ 66
Interest on the total pension liability including service cost	20,095
Projected earnings on plan investments	(17,864)
Member contributions	(49)
Administrative expense	0
Recognition of deferred outflows and inflows of resources:	
• Difference between expected and actual experience	304
• Changes in assumptions and other inputs	(927)
• Difference between actual and projected earnings on investments	892
Total Pension Expense	2,517

Calculation of Interest on the Total Pension Liability

(Amounts in 000's)

	Dollar Amount	Expected Return	Portion of Year	Interest
Beginning Total Pension Liability	$ 324,669	6.5%	1.0	$ 21,103
Service Cost	66	6.5%	1.0	4
Benefit Payments	(31,134)	6.5%	0.5	(1,012)
Difference between expected and actual experience	304	6.5%	0.0	0
Changes of assumptions	(927)	6.5%	0.0	0
Interest on Total Pension Liability				20,095

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	$ 286,609	6.5%	1.0	$ 18,630
■ Employer Contributions	7,507	6.5%	0.5	244
■ Member Contributions	49	6.5%	0.5	2
■ Benefit Payments	(31,134)	6.5%	0.5	(1,012)
■ Administrative Expenses	0	6.5%	0.5	0
■ Projected Earnings on Investments				17,864

GASBS 68 Balance Equation
(Amounts in 000's)

	6/30/18	6/30/19	Change
■ Total Pension Liability	$ 324,669	$313,073	$(11,596)
■ Fiduciary Net Position	286,609	281,568	(5,041)
■ Net Pension Liability/(Asset)	38,060	31,505	(6,555)
■ Deferred inflows of resources	2,163	3,728	1,565
■ Deferred outflows of resources	0	-	-
■ Employer contributions	N/A	7,507	7,507
■ Net impact on balance sheet	40,223	42,740	2,517

Check:

■ Pension expense for year	$2,517

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	$536	$4,410	$35	$0	$4,446
2	358	3,822	24	0	3,846
3	212	3,469	14	0	3,483
4	144	3,175	9	0	3,185
5	84	2,926	6	0	2,931
6	47	2,602	3	0	2,605
7	24	2,499	2	0	2,500
8	9	2,214	1	0	2,214
9	3	2,075	0	0	2,075
10	2	1,944	0	0	1,944
11	0	1,821	0	0	1,821
12	0	1,705	0	0	1,705
13	0	1,597	0	0	1,597
14	0	1,495	0	0	1,495
15	0	1,399	0	0	1,399
16	0	1,309	0	0	1,309
17	0	1,224	0	0	1,224
18	0	1,145	0	0	1,145
19	0	2,102	0	0	2,102
20	0	1,717	0	0	1,717
21	0	1,400	0	0	1,400
22	0	1,140	0	0	1,140
23	0	927	0	0	927
24	0	752	0	0	752
25	0	608	0	0	608
*	*	*	*	*	*
45	0	4	0	0	4
46	0	3	0	0	3
47	0	2	0	0	2
48	0	1	0	0	1
49	0	0	0	0	0
50	0	0	0	0	0
51	0	0	0	0	0
52	0	0	0	0	0
*	*	*	*	*	*
80	0	0	0	0	0
81	0	0	0	0	0
82	0	0	0	0	0
83	0	0	0	0	0

Note: Years 26 to 44, and 53 to 79 omitted.

Discount Rate "Crossover" Test

Projection of Fiduciary Net Position – amounts in $000's

Year	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
1	$281,568	$4,446	$30,579	$0	$17,453	$272,888
2	272,888	3,846	30,250	0	16,880	263,364
3	263,364	3,483	29,793	0	16,264	253,318
4	253,318	3,185	29,266	0	15,618	242,854
5	242,854	2,931	28,665	0	14,949	232,069
6	232,069	2,605	27,972	0	14,260	220,961
7	220,961	2,500	27,207	0	13,559	209,813
8	209,813	2,214	26,403	0	12,852	198,477
9	198,477	2,075	25,564	0	12,138	187,126
10	187,126	1,944	24,697	0	11,424	175,797
11	175,797	1,821	23,803	0	10,712	164,527
12	164,527	1,705	22,882	0	10,006	153,356
13	153,356	1,597	21,935	0	9,307	142,324
14	142,324	1,495	20,962	0	8,618	131,475
15	131,475	1,399	19,962	0	7,943	120,855
16	120,855	1,309	18,936	0	7,283	110,511
17	110,511	1,224	17,886	0	6,642	100,491
18	100,491	1,145	16,816	0	6,023	90,843
19	90,843	2,102	15,729	0	5,462	82,678
20	82,678	1,717	14,631	0	4,954	74,718
21	74,718	1,400	13,529	0	4,462	67,052
22	67,052	1,140	12,431	0	3,991	59,753
23	59,753	927	11,345	0	3,545	52,880
24	52,880	752	10,280	0	3,128	46,480
25	46,480	608	9,246	0	2,740	40,582
*	*	*	*	*	*	*
45	3,002	4	404	0	182	2,784
46	2,784	3	369	0	169	2,587
47	2,587	2	342	0	157	2,404
48	2,404	1	319	0	146	2,232
49	2,232	0	301	0	135	2,067
50	2,067	0	284	0	125	1,908
51	1,908	0	269	0	115	1,754
52	1,754	0	254	0	106	1,606
*	*	*	*	*	*	*
80	50	0	2	0	3	51
81	51	0	1	0	3	53
82	53	0	1	0	3	55
83	55	0	0	0	4	59

Note: Years 26 to 44, and 53 to 79 omitted.

Discount Rate "Crossover" Test

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

Year	Projected Beginning Fiduciary Net Position	Projected Benefit Payments	"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments	PV of "Funded" Benefit Payments	PV of "Unfunded" Benefit Payments	PV of Benefit Payments using 6.50% Discount Rate
1	$281,568	$30,579	$30,579	$0	$28,712	$0	$28,712
2	272,888	30,250	30,250	0	26,670	0	26,670
3	263,364	29,793	29,793	0	24,664	0	24,664
4	253,318	29,266	29,266	0	22,749	0	22,749
5	242,854	28,665	28,665	0	20,922	0	20,922
6	232,069	27,972	27,972	0	19,170	0	19,170
7	220,961	27,207	27,207	0	17,508	0	17,508
8	209,813	26,403	26,403	0	15,953	0	15,953
9	198,477	25,564	25,564	0	14,504	0	14,504
10	187,126	24,697	24,697	0	13,157	0	13,157
11	175,797	23,803	23,803	0	11,906	0	11,906
12	164,527	22,882	22,882	0	10,747	0	10,747
13	153,356	21,935	21,935	0	9,674	0	9,674
14	142,324	20,962	20,962	0	8,680	0	8,680
15	131,475	19,962	19,962	0	7,762	0	7,762
16	120,855	18,936	18,936	0	6,913	0	6,913
17	110,511	17,886	17,886	0	6,132	0	6,132
18	100,491	16,816	16,816	0	5,413	0	5,413
19	90,843	15,729	15,729	0	4,754	0	4,754
20	82,678	14,631	14,631	0	4,152	0	4,152
21	74,718	13,529	13,529	0	3,605	0	3,605
22	67,052	12,431	12,431	0	3,110	0	3,110
23	59,753	11,345	11,345	0	2,665	0	2,665
24	52,880	10,280	10,280	0	2,268	0	2,268
25	46,480	9,246	9,246	0	1,915	0	1,915
*	*	*	*	*	*	*	*
45	3,002	404	404	0	24	0	24
46	2,784	369	369	0	20	0	20
47	2,587	342	342	0	18	0	18
48	2,404	319	319	0	16	0	16
49	2,232	301	301	0	14	0	14
50	2,067	284	284	0	12	0	12
51	1,908	269	269	0	11	0	11
52	1,754	254	254	0	10	0	10
*	*	*	*	*	*	*	*
80	50	2	2	0	0	0	0
81	51	1	1	0	0	0	0
82	53	1	1	0	0	0	0
83	55	0	0	0	0	0	0
Total					302,226	0	302,226

Note: Years 26 to 44, and 53 to 79 omitted.