

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM

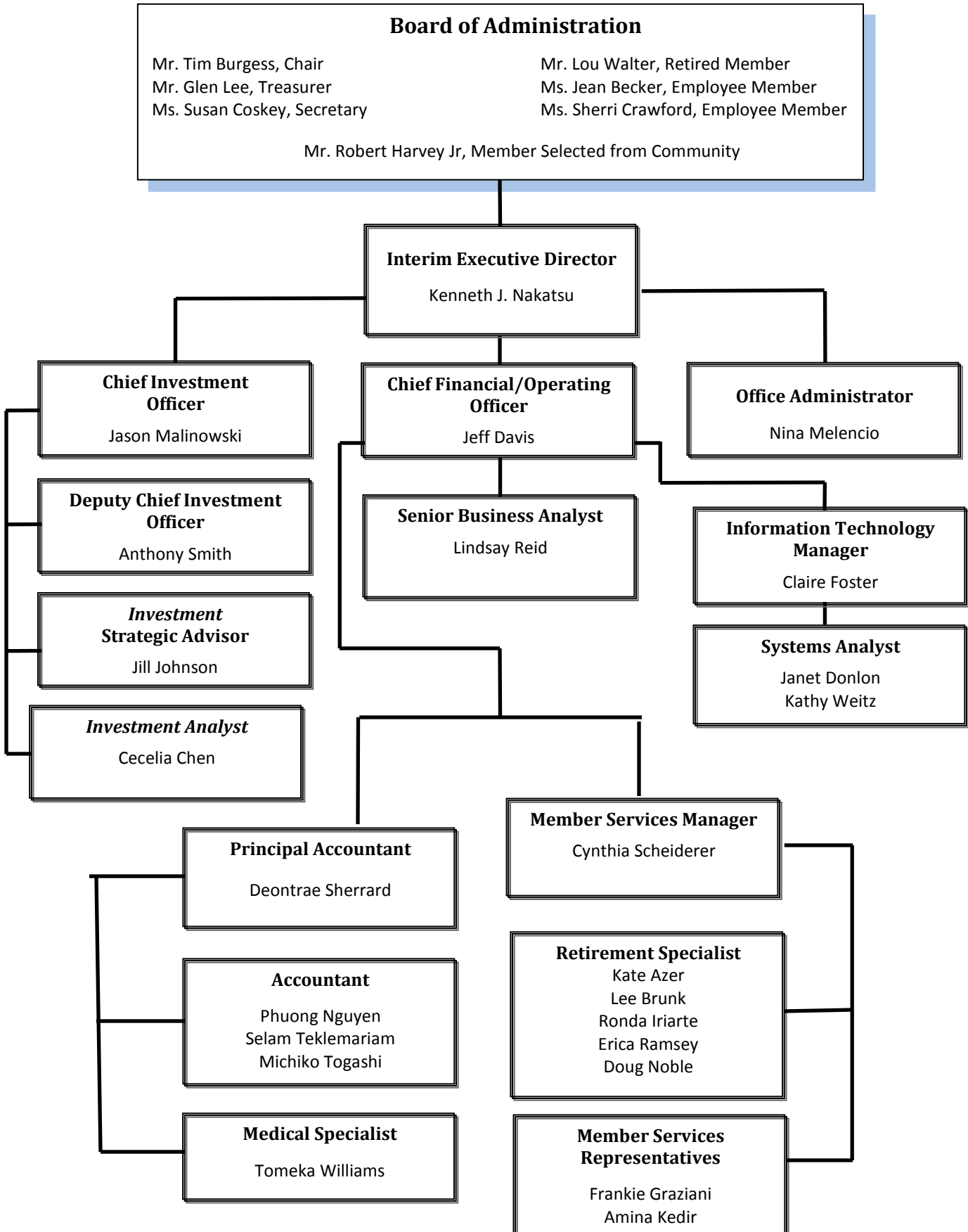
A Pension Trust Fund of the City of Seattle

ANNUAL REPORT

For the Year Ended December 31, 2016

Prepared by: Seattle City Employees' Retirement System Staff
720 Third Avenue, Suite 900
Seattle, WA 98104-1852
(206) 386-1293
(206) 386-1506 fax
<http://www.seattle.gov/retirement>

2016 Organizational Chart





Seattle City Employees' Retirement System

To the Honorable Mayor and Seattle City Council
Seattle, Washington

I am pleased to transmit the 2016 Annual Report of the Seattle City Employees' Retirement System. This Annual Report consists of four sections: the Introductory Section contains the Executive Director's letter of transmittal, an organizational chart for the System, and the table of contents for the report; the Financial Section contains the audited financial statements of the System, as well as a letter from the System's certified public accountants; the Actuarial Section contains the independent consulting actuary's opinion, along with related actuarial data and statements; and the Statistical Section includes tables of significant data pertaining to the System operations.

The compilation of this report is the result of the combined effort of the Staff under the leadership of the Retirement Board. The intention is to provide complete and reliable information to assist in management decisions, to present evidence of compliance with legal provisions, and to demonstrate responsible stewardship for the assets contributed by the members and their employers.

The Executive Director and staff have reviewed the internal accounting controls and the financial statements, supporting schedules and statistical tables, and we are of the opinion that they fairly represent the condition of the Retirement System.

The accuracy and completeness of the data contained in this report are the sole responsibility of the management of the Seattle City Employees' Retirement System.

Overview of the Seattle City Employees' Retirement System

The Retirement System was created and established by amendment to the Charter of the City of Seattle (Article XXII – Section 13) submitted to the voters at the municipal election of March 8, 1927. The System, known thereafter as the Seattle City Employees' Retirement System (SCERS), is to provide retirement income to help maintain the quality of life for its former employees. The retirement plan is a defined benefit plan, which means the employee's salary, years of service, and age at the time of retirement are used to determine the amount of retirement benefits. Members of the Retirement System also participate in Social Security.

The Retirement System covers employees of the City of Seattle, the Seattle Public Library, and certain employees of King County and METRO. The Retirement System does not cover law enforcement officers and fire fighter employees. The year ended December 31, 2016, concludes our 89th year of operations.

The City of Seattle also sponsors a voluntary deferred compensation plan which permits employees to make pre-tax contributions up to the federal limits and manage the investment allocation of their contributions. This plan is administered through the Seattle Department of Human Resources and a third party administrator.

Distribution of the 2016 Annual Report

The report will be posted to the System's website. We trust the departments and Retirement System members will find this report both informative and helpful.

We would like to express our gratitude to the staff, the advisors, and to the many other people who have worked so diligently to assure the successful operation of the System.

Respectfully submitted,
BOARD OF ADMINISTRATION,
SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM

A handwritten signature in blue ink, appearing to read 'Jeffrey S. Davis', is written over a faint circular stamp.

Jeffrey S. Davis
Executive Director

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CliftonLarsonAllen

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FINANCIAL

Independent Auditors Report

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
Report of Independent Auditors
and Financial Statements with
Required Supplementary Information
and Additional Information

December 31, 2016 and 2015

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INDEPENDENT AUDITORS' REPORT

Board of Administration
Seattle City Employees' Retirement System
Seattle, Washington

Report on the Financial Statements

We have audited the accompanying financial statements of the Seattle City Employees' Retirement System (SCERS), which comprise the statements of fiduciary net position as of December 31, 2016 and 2015, and the related statements of changes in fiduciary net position for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

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

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

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of SCERS as of December 31, 2016 and 2015, and the results of its operations for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Report on Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the schedules of changes in net pension liability and related ratios, employer contributions, and investment returns be presented to supplement the basic financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the 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 financial statements, and other knowledge we obtained during our audits of the 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.

Report on Other Information

Our audits were conducted for the purpose of forming an opinion on the financial statements as a whole. The additional information, as listed in the table of contents, is presented for purposes of additional analysis and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audits of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the additional information, as listed in the table of contents, is fairly stated in all material respects in relation to the financial statements as a whole.



CliftonLarsonAllen LLP

Baltimore, Maryland
July 7, 2017

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
MANAGEMENT'S DISCUSSION AND ANALYSIS
Years Ended December 31, 2016 and 2015

This section presents management's discussion and analysis of the Seattle City Employees' Retirement System's (SCERS or the System) financial performance during the years ended December 31, 2016 and 2015. Please read it in conjunction with the accompanying financial statements and the related notes.

The City of Seattle is responsible for establishing and maintaining an internal control structure designed to ensure the protection of assets from loss, theft, or misuse, and to ensure the accounting information generated is adequate to prepare financial statements in conformity with generally accepted accounting principles. The internal control structure is designed to provide reasonable, though not absolute, assurance of achieving these objectives.

As a department of the City of Seattle, the Seattle City Employees' Retirement System is subject to this internal control structure. In addition, section 4.36.140.D of the Seattle Municipal Code requires the Board of Administration to annually transmit a report of the financial condition of the System to the City Council.

This report is prepared in accordance with the principles of governmental accounting and reporting promulgated by the Governmental Accounting Standards Board (GASB). Investments are stated at fair value, and revenues include the recognition of unrealized gains and losses. The accrual basis of accounting is used to record assets, liabilities, revenues and expenses. Revenue recognition occurs when earned without regard to the date of collection. Expense recognition occurs when the corresponding liabilities are incurred, regardless of payment date. The basis of contributions to the System follows the principles of level cost financing, with current service financed on a current basis. Milliman Consultants and Actuaries, the consulting actuary, evaluates the funding status of the System.

This report contains the following information:

- 1. Basic Financial Statements** including:
 - a. Statements of Fiduciary Net Position
 - b. Statements of Changes in Fiduciary Net Position
 - c. Notes to the Financial Statements

- 2. Required Supplementary Information** including:
 - a. Schedule of Changes in Net Pension Liability and Related Ratios
 - b. Schedule of Employer Contributions
 - c. Schedule of Investment Returns

- 3. Additional Information** including:
 - a. Schedule of Administrative Expenses
 - b. Schedule of Investment Expenses

The basic financial statements are described as follows:

- The Statement of Fiduciary Net Position shows the account balances at year-end and includes the net position available for future benefit payments. The liabilities for future benefit payments are not included in this statement; however, they are shown in the Schedule of Changes in Net Pension Liability and Related Ratios that is included in the Required Supplementary Information.

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
MANAGEMENT'S DISCUSSION AND ANALYSIS
Years Ended December 31, 2016 and 2015

- The Statement of Changes in Fiduciary Net Position shows the sources and uses of funds during the year and illustrates the change in net position from the previous year.
- The Notes to the Financial Statements are an integral part of the financial statements and include additional detailed information and schedules to provide a better understanding of the financial statements.

The required supplementary information provides historical trends that help to reflect the ongoing plan perspective and the long-term nature of the defined benefit plan.

- The Schedule of Changes in Net Pension Liability and Related Ratios contains actuarial information about the status of the plan.
- The Schedule of Employer Contributions contains historical trend information regarding the value of the total annual contributions the employer must pay and the actual contributions paid by employers in meeting this requirement.
- The Schedule of Investment Returns contains the investment returns realized on the total portfolio for the years since 2014.

Financial Highlights

- Net position increased by \$175 million (7.6%) during 2016. The primary driver was net investment income of \$190 million. Net position decreased by \$10 million (-0.4%) during 2015. The primary driver was realizing only a \$7 million increase in investment income.
- Revenue additions to net position for 2016 were \$370 million which includes member and employer contributions of \$180 million and revenue from investment activity totaling \$190 million. Revenue additions to net position for 2015 were \$174 million which includes member and employer contributions of \$167 million and revenue from investment activity totaling \$7 million.
- Expenses (deductions from net position) for 2016 increased by \$11.0 million (6.0%) from 2015. This can be primarily attributed to a \$9.6 million increase in retiree benefits. In 2016, the net increase in the number of retirees receiving benefits was 2.6%. Expenses for 2015 increased by \$13.0 million (7.6%) from 2014. This can be primarily attributed to an \$9.1 million increase in retiree benefits. In 2016, the net increase in the number of retirees receiving benefits was 3.4%.

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
MANAGEMENT'S DISCUSSION AND ANALYSIS
Years Ended December 31, 2016 and 2015

Fiduciary Net Position

The table below provides a summary of assets and current liabilities for the years ended December 31:

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Cash, short-term investments and receivables	\$ 443,140,843	\$ 170,672,072	\$ 128,978,368
Investments at fair value	2,351,299,369	2,154,482,878	2,226,745,449
Securities lending collateral	<u>11,130,677</u>	<u>50,952,037</u>	<u>25,231,591</u>
Total assets	<u>2,805,570,889</u>	<u>2,376,106,987</u>	<u>2,380,955,408</u>
Securities lending payable	11,125,376	53,633,431	28,228,622
Other payables	<u>305,947,349</u>	<u>9,452,393</u>	<u>30,023,091</u>
Total liabilities	<u>317,072,725</u>	<u>63,085,824</u>	<u>58,251,713</u>
Total net position	<u>\$ 2,488,498,164</u>	<u>\$ 2,313,021,163</u>	<u>\$ 2,322,703,695</u>

Changes in Fiduciary Net Position

The table below provides a summary of the changes in plan net position and reflects the activities of the fund for the years ended December 31:

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Additions:			
Employer contributions	\$ 108,454,496	\$ 101,153,403	\$ 89,988,898
Member contributions	71,755,857	65,779,216	63,969,504
Net investment income and other income	<u>189,941,169</u>	<u>7,083,633</u>	<u>122,510,195</u>
Total additions	<u>370,151,522</u>	<u>174,016,252</u>	<u>276,468,597</u>
Deductions:			
Retiree benefits	168,967,298	159,349,807	150,239,008
Refunds of contributions	16,456,570	16,137,840	15,103,615
Administrative expenses	<u>9,250,653</u>	<u>8,211,137</u>	<u>5,330,764</u>
Total deductions	<u>194,674,521</u>	<u>183,698,784</u>	<u>170,673,387</u>
Net increase (decrease)	<u>\$ 175,477,001</u>	<u>\$ (9,682,532)</u>	<u>\$ 105,795,210</u>

Revenues - Additions to Fiduciary Net Position

- In 2016, employer contributions increased by \$7.3 million (7.2%) compared to 2015. In 2015, employer contributions increased by \$11.2 million (12.4%) compared to 2014.
- Member contributions increased by \$6.0 million (9.1%) compared to 2015. In 2015, member contributions increased by \$1.8 million (2.8%) compared to 2014.
- Net investment income was \$189.9 million in 2016 compared to \$7.1 million in 2015 and \$122.5 million in 2014.

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
MANAGEMENT'S DISCUSSION AND ANALYSIS
Years Ended December 31, 2016 and 2015

Expenses - Deductions from Fiduciary Net Position

- Retiree benefits increased in 2016 by \$9.6 million (6.0%) compared to 2015, primarily due to the increased number of members making application for retirement and a mandatory 1.5% COLA (Cost of Living Adjustment). As a comparison, retiree benefits increased \$9.1 million (6.1%) in 2015.
- Refunds of contributions increased in 2016 by \$0.3 million (2.0%) compared to amounts paid in 2015. In 2015, refunds increased by \$1.0 million (6.8%) compared to amounts paid in 2014.

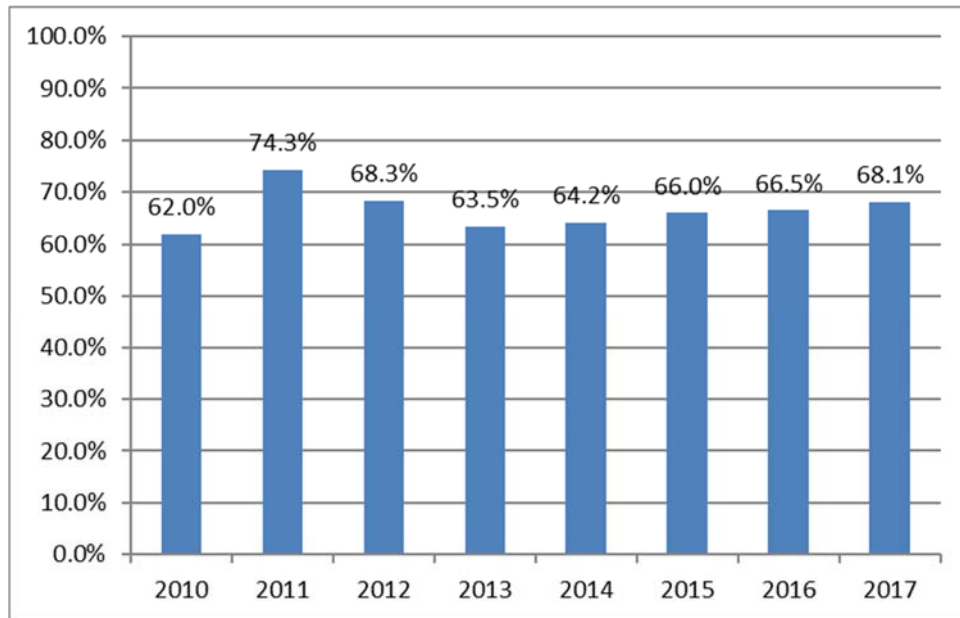
Changes in Plan Membership

The table below reflects the active membership and retiree changes for the years ended December 31:

	<u>2016</u>	<u>2015</u>	<u>Change</u>
Retirees and beneficiaries receiving benefits	<u>6,382</u>	<u>6,223</u>	2.6%
Current and terminated employees:			
Current employee members	9,151	8,882	3.0%
Terminated members entitled to, but not yet receiving benefits, Vested	1,257	1,220	3.0%
Terminated members not entitled to benefits beyond contributions and accumulated interest, Non-Vested	<u>1,095</u>	<u>977</u>	12.1%
Total	<u>11,503</u>	<u>11,079</u>	3.8%

Funding Status

Schedule of Funding Progress
Funding Ratio
As of January 1st Valuation Date



With the January 1, 2011 Valuation and the 2007-2010 Experience Study, the Board of Administration adopted a policy of asset smoothing over a 5-year period. The reported funding ratio as of January 1, 2012 reflects that change. Prior to January 1, 2011, all funding ratios were reported on a market basis.

Funds are accumulated from employer and employee contributions and investment earnings, and are used to pay present and future benefit obligations and administrative expenses. We continue to make a constant effort to achieve a fully funded status, thereby assuring the participants of a financially sound retirement system. In 2016, most active members contributed 10.03% of their salaries to the retirement fund and the City contributed 15.23%.

The graph above refers to the results of actuarial valuations prepared for funding purposes in accordance with Actuarial Standards of Practice (ASOPs). However, GASB 67 requires a separate actuarial valuation for accounting purposes. The primary purpose of the valuation for accounting purposes is to provide consistent, standardized methodology that allows comparability of amounts and increased transparency of the pension liability across U.S. pension plans complying with GASB 67. When reporting in accordance with GASB 67, the Plan Fiduciary Net Position as a Percentage of the Total Pension Liability was 65.6% as of December 31, 2016.

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
MANAGEMENT'S DISCUSSION AND ANALYSIS
Years Ended December 31, 2016 and 2015

Investment Activities

One-year returns on asset classes (gross of fees) and comparative benchmarks are presented in the table below for the years ended December 31. These returns are calculated on a time-weighted rate of return basis:

2016 Investment Performance

Total Portfolio	8.6%
Domestic Equities	13.2%
Benchmark: Russell 3000 Index (Blend)	12.7%
International Equities	5.2%
Benchmark: MSCI ACWI ex US IM/ND	4.4%
Broad Fixed Income	4.3%
Benchmark: Barclays U.S. Universal Index	3.9%
Private Equity	6.5%
Benchmark: ASP Custom Private Equity Index	0.4%
Real Estate	9.7%
Benchmark: Russell NCREIF Property Index	9.1%
Diversifying Strategies	0.0%
Benchmark: HFRI Fund of Funds Comp. Index	0.5%
Cash	0.0%
Benchmark: Citigroup 3-Month T-Bills	0.3%

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
MANAGEMENT'S DISCUSSION AND ANALYSIS
Years Ended December 31, 2016 and 2015

2015 Investment Performance

Total Portfolio	0.3%
Domestic Equities	1.5%
Benchmark: Russell 3000 Index (Blend)	1.2%
International Equities	(3.9%)
Benchmark: MSCI ACWI ex US IM/ND	(4.6%)
Broad Fixed Income	0.3%
Benchmark: Barclays U.S. Universal Index	0.4%
Private Equity	2.6%
Benchmark: ASP Custom Private Equity Index	3.5%
Real Estate	13.5%
Benchmark: Russell NCREIF Property Index	13.9%
Diversifying Strategies	0.2%
Benchmark: Russell NCREIF Property Index	(0.3%)
Cash	0.7%
Benchmark: Citigroup 3-Month T-Bills	0.0%

The investments of the System are governed primarily by the prudent investor rule. The prudent investor rule, as set forth by the Revised Code of Washington, establishes a standard for all fiduciaries, which includes anyone who has authority with respect to the fund. The System invests retirement funds for the long-term, anticipating both good and poor performing financial markets. The overall investment portfolio is positioned in a diversified manner to maximize return given the System's risk tolerance.

Contacting the Seattle City Employees' Retirement System

If you have questions about this report or need additional information, please contact us by telephone at: 206.386.1293 or by e-mail at: retirecity@seattle.gov or you may mail your questions to:

Seattle City Employees' Retirement System
720 Third Avenue, Suite 900
Seattle, WA 98104

FINANCIAL STATEMENTS

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
STATEMENTS OF FIDUCIARY NET POSITION
Years Ended December 31, 2016 and 2015

	<u>2016</u>	<u>2015</u>
Assets:		
Cash	\$ 6,302,934	\$ 8,943,035
Short-term investments	<u>336,427,114</u>	<u>143,820,761</u>
Total cash and short-term investments	<u>342,730,048</u>	<u>152,763,796</u>
Receivables:		
Members	3,434,870	3,496,137
Employer	6,143,927	4,787,895
Interest and dividends	3,486,918	3,449,203
Sales proceeds receivable	<u>87,345,080</u>	<u>6,175,041</u>
Total receivables	<u>100,410,795</u>	<u>17,908,276</u>
Investments, at fair value:		
Fixed income	539,527,403	604,985,207
Equity	1,350,196,766	1,163,805,377
Real estate	287,996,774	270,796,297
Alternative investments	<u>173,578,426</u>	<u>114,895,997</u>
Total investments, at fair value	<u>2,351,299,369</u>	<u>2,154,482,878</u>
Securities lending collateral	<u>11,130,677</u>	<u>50,952,037</u>
Total assets	<u>2,805,570,889</u>	<u>2,376,106,987</u>
Liabilities:		
Pensions payable and other	1,370,010	2,004,637
Obligations under securities lending	11,125,376	53,633,431
Investment commitments payable	<u>304,577,339</u>	<u>7,447,756</u>
Total liabilities	<u>317,072,725</u>	<u>63,085,824</u>
Fiduciary net position held in trust for pension benefits	<u>\$ 2,488,498,164</u>	<u>\$ 2,313,021,163</u>

The accompanying notes are an integral part of these financial statements.

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
Years Ended December 31, 2016 and 2015

	<u>2016</u>	<u>2015</u>
Additions:		
Contributions:		
Employer	\$ 108,454,496	\$ 101,153,403
Member	<u>71,755,857</u>	<u>65,779,216</u>
Total contributions	<u>180,210,353</u>	<u>166,932,619</u>
Investment activities:		
Investment income:		
Net change in fair value of investments	163,299,357	(22,933,464)
Interest	10,569,831	11,377,655
Dividends	<u>24,780,531</u>	<u>27,836,456</u>
Net investment income	<u>198,649,719</u>	<u>16,280,647</u>
Securities lending activities:		
Securities lending income	100,217	56,694
Borrowing rebates	<u>165,375</u>	<u>674,010</u>
Total securities lending income	265,592	730,704
Securities lending management fees	<u>(66,376)</u>	<u>(182,660)</u>
Net income from securities lending	<u>199,216</u>	<u>548,044</u>
Investment activity expenses:		
Investment management fees	(8,186,323)	(9,096,421)
Investment consultant fees	(295,000)	(295,000)
Investment custodial fees	<u>(426,443)</u>	<u>(353,637)</u>
Total investment activity expenses	<u>(8,907,766)</u>	<u>(9,745,058)</u>
Net income from investment activities	<u>189,941,169</u>	<u>7,083,633</u>
Total additions	<u>370,151,522</u>	<u>174,016,252</u>
Deductions:		
Benefits	168,967,298	159,349,807
Refunds of contributions	16,456,570	16,137,840
Administrative expenses	<u>9,250,653</u>	<u>8,211,137</u>
Total deductions	<u>194,674,521</u>	<u>183,698,784</u>
Net change	175,477,001	(9,682,532)
Fiduciary net position held in trust for pension benefits		
Beginning of year	<u>2,313,021,163</u>	<u>2,322,703,695</u>
End of year	<u><u>\$ 2,488,498,164</u></u>	<u><u>\$ 2,313,021,163</u></u>

Note 1 - Plan Description

The Seattle City Employees' Retirement System (the System) is a multiple employer defined benefit public employee retirement plan, covering employees of the City of Seattle and administered in accordance with Chapter 4.36 of the Seattle Municipal Code. The System is a pension trust fund of the City of Seattle.

The System is administered by the Retirement System Board of Administration (the Board). The Board consists of seven members including the Chair of the Finance Committee of the Seattle City Council, the City of Seattle Finance Director, the City of Seattle Personnel Director, two active members and one retired member of the System who are elected by other system members, and one outside board member who is appointed by the other six board members. Elected and appointed board members serve for three-year terms.

All employees of the City of Seattle are eligible for membership in the System with the exception of uniformed police and fire personnel who are covered under a retirement system administered by the State of Washington. Employees of METRO and the King County Health Department who established membership in the System when these organizations were City of Seattle departments were allowed to continue their System membership (there are currently fewer than 50 members in this category). There are currently 6,382 retirees and beneficiaries receiving benefits, and 9,151 active members of the System. There are 1,257 terminated, vested employees entitled to future benefits.

The System provides retirement, death, and disability benefits. Retirement benefits vest after five years of credited service, while death and disability benefits vest after ten years of service. Retirement benefits are calculated as 2% multiplied by years of creditable service, multiplied by average salary, based on the highest 24 consecutive months. The benefit is actuarially reduced for early retirement. The System provides post-retirement benefit increase including an automatic 1.5% annual COLA increase and a 65% restoration of purchasing power benefit.

The City of Seattle adopted a second tier for the System in 2016. Starting January 1, 2017, new eligible employees will join this second tier. The tier is a defined benefit plan much like the original tier but has a lower contribution rate for members and calculates final average salary based on the highest 60 consecutive months of service. Other changes related to the new tier can be found in the Seattle Municipal Code 4.36.

Note 2 - Summary of Significant Accounting Policies and Plan Asset Matters

Basis of Accounting - These financial statements have been prepared with an "economic resources" measurement focus on the accrual basis of accounting in accordance with generally accepted accounting principles, as prescribed by the Government Accounting Standards Board.

Use of Estimates in Preparing Financial Statements - The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires the System to make estimates and assumptions that affect the reported amounts of assets, liabilities, additions and deductions to net position held in trust for pension benefits and disclosure of contingent assets and liabilities at the date of the financial statements and during the reporting period. Actual results could differ from those estimates.

Note 2 - Summary of Significant Accounting Policies and Plan Asset Matters (Continued)

Cash and Short Term Investments - The System classifies cash on deposit in financial institutions and cash on deposit in the City of Seattle's internal cash management pool as cash. The System also recognizes certain short-term highly liquid securities with an original maturity of three months or less as short-term investments.

Method Used to Value Investments - Plan investments are reported at fair value. Fair value is defined as the amount at which an investment could be exchanged in a current arm's length transaction between willing parties in which the parties each act knowledgeably and prudently. All investments are valued based on objective, observable, unadjusted quoted market prices in an active market on the measurement date, if available. In the absence of such data, valuations are based upon those of comparable securities in active markets. For illiquid or hard to value investments such as real estate, private equity, and other private investments, valuations are based upon data provided by the respective investment managers. These private asset valuations are generally based upon estimated current values and/or independent appraisals.

Investment income consists of realized and unrealized appreciation (depreciation) in the fair value of investments, interest and dividend income earned, less investment expense, plus income from securities lending activities, less deduction for security lending expenses. Interest income is recorded on the accrual basis and dividends are recorded on the ex-dividend date. Securities and securities transactions are reflected in the financial statements on a trade-date basis. Investments are made in accordance with the Prudent Person Rule as defined by the State of Washington RCW 35.39.060.

Federal Income Tax Status - The System is a qualified plan under section 401(a) of the Internal Revenue Code and is exempt from federal income taxes under section 501(a).

Contributions - Employee and employer contributions are reported in the year they are due to the System.

Benefits and Refunds of Contributions - Benefits and refunds of contributions are recognized when due and payable in accordance with the System's policy.

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
Years Ended December 31, 2016 and 2015

Note 3 - Contributions

Member and employer contributions rates are established by the Seattle Municipal Code Chapter 4.36.

The employer contribution rate is determined by the actuarial formula identified as the Entry Age Cost Method. The formula determines the amount of contributions necessary to fund the current service cost, representing the estimated amount necessary to pay for benefits earned by the employees during the current service year and the amount of contributions necessary to pay for prior service costs. Total required contributions, including amounts necessary to pay administrative costs, are determined through annual actuarial valuations.

Actuarially determined contribution rates were 10.03% for most members in 2016 and 2015 and 15.23% and 15.73% for the employers in 2016 and 2015. There are no long-term contracts for contributions outstanding and currently no legally required reserves. See Note 8 for additional information on assumptions used in calculating the actuarially determined contribution rates.

Note 4 - Cash

SCERS' policy for custodial credit risk of deposits is to rely on Federal Deposit Insurance Corporation (FDIC) and Washington Public Deposit Protection Commission (PDPC) insurance. FDIC insures the cash deposits up to \$250,000. As provided by the State of Washington RCW 43.84, the PDPC collateralizes deposits in excess of \$100,000. The bank balances of deposits of a FDIC institution as of the balance sheet date are insured.

Note 5 - Investments

Investment policy - The pension plan's policy in regard to the allocation of invested assets is established and may be amended by the SCERS Board by a majority vote of its members. It is the policy of the SCERS Board to pursue an investment strategy that reduces risk through the prudent diversification of the portfolio across a broad selection of distinct asset classes. The pension plan's investment policy discourages the use of cash equivalents, except for liquidity purposes, and aims to refrain from dramatically shifting asset class allocations over short time spans. The following was the Board's adopted asset allocation policy as of December 31, 2016:

Asset Class	Target Allocation
Equity	
Public Equity	48.0%
Private Equity	9.0%
Fixed Income	
Broad Fixed Income	18.0%
Credit Fixed Income	5.0%
Real Assets	
Real Estate	12.0%
Infrastructure	3.0%
Diversifying Strategies	5.0%
Total	100.0%

Note 5 – Investments (Continued)

Money-weighted rate of return – As of December 31, 2016, the return for the System, based on a money-weighted rate of return methodology, was 8.62%. As of December 31, 2015, the return for the System, based on a money-weighted rate of return methodology, was 0.28%

Short Term Investments - Short term investments include a Short-term Investment Fund (STIF), which is a collective trust that may include certificates of deposit, treasury bills, and mutual funds.

Commingled Funds – The System invests in various commingled funds where it has an ownership interest in a pool of securities alongside other fund holders. For those commingled funds that are anticipated to be held by the System on a long-term basis, the following tables in this Section reflect the System's pro rata net asset value in these commingled funds. The System's investments in commingled funds that are anticipated to be held on a temporary basis are not reflected in this manner.

Custodial Credit Risk – For investments, custodial credit risk is the risk that in the event of the failure of a financial institution or a bank, the System will not be able to recover the value of its deposits or investments that are in the possession of an outside party. The System mitigates custodial credit risk by having its investment securities held by the System's custodian (BNY Mellon) and registered in the System's name. The System's short-term investments are created through daily sweeps of excess cash by the System's custodian, and invested in a vehicle managed by the custodian.

Credit Risk - Credit risk is the risk that an issuer, or other counterparty, to an investment will not fulfill its obligations. The Retirement Board provides each of the System's Broad Fixed Income investment managers with a set of investment guidelines. These guidelines specify eligible investments, minimum diversification standards, and applicable investment restrictions necessary for diversification and risk control. In general, these guidelines require that at least 70 percent of the net asset value of a manager's portfolio be invested in investment-grade securities. Managers do not have authority to depart from their guidelines. A summary of the credit ratings of the System's fixed income investments is provided on pages 22 and 23.

Concentration of Credit Risk - Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investment in a single issuer. The Retirement Board provides each of the System's Broad Fixed Income investment managers with a set of investment guidelines. These guidelines specify eligible investments, minimum diversification standards, and applicable investment restrictions necessary for diversification and risk control. In general, these guidelines require that investments in any one issuer may not exceed 5 percent of the net asset value of a manager's portfolio. Managers do not have authority to depart from their guidelines.

Note 5 – Investments (Continued)

Interest Rate Risk - Interest rate risk is the risk that changes in interest rates over time will adversely affect the fair value of an investment. Market or interest rate risk is the greatest risk faced by an investor in the debt securities market. The price of a debt security typically moves in the opposite direction of the change in interest rates. The Retirement Board provides each of the System's Broad Fixed Income investment managers with a set of investment guidelines. These guidelines specify eligible investments, minimum diversification standards, and applicable investment restrictions necessary for diversification and risk control. In general, these guidelines require that the weighted average duration of the security holdings of a manager's portfolio not vary from that of the applicable benchmark by more than 20 percent. Managers do not have authority to depart from their guidelines. A summary of the maturities of the System's fixed income investments is provided on pages 20 and 21.

The fixed income portfolio is primarily managed by four external money management firms. Managers have agreed to a set of guidelines that provide ranges and limits for varying types of securities that may be held within the portfolio. A consultant is hired to measure performance and monitor the investment style. The Investment Committee reviews the consultant's results quarterly.

Foreign Currency Risk - Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. The System's currency risk exposures, or exchange rate risk, primarily reside within the non-U.S. equity and fixed income investment holdings. The System expects these managers to maintain adequately diversified portfolios to limit foreign currency and security risk.

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
Years Ended December 31, 2016 and 2015

Note 5 – Investments (Continued)

The System's exposure to foreign currency risk in U.S. dollars as of December 31, 2016, is summarized in the following table.

Currency Type	Equity	Fixed Income	Derivatives	Cash	Total
Australian Dollar	\$ 3,100,873	\$ -	\$ 33,999	\$ 22,467	\$ 3,157,339
Canadian Dollar	4,119,689	-	22,374	14,998	4,157,061
Swiss Franc	3,643,597	-	20,659	1,523	3,665,779
Danish Krone	676,323	-	12,509	2,731	691,563
Euro Currency Unit	12,804,253	-	108,622	7,921	12,920,796
Pound Sterling	7,535,544	-	69,738	60,144	7,665,426
Hong Kong Dollar	1,257,177	-	1,041	4,820	1,263,038
Israeli Shekel	86,014	-	-	1,394	87,408
Japanese Yen	9,978,529	-	28,389	44,458	10,051,376
Norwegian Krone	324,414	-	6,956	7,206	338,576
New Zealand Dollar	81,293	-	-	1,857	83,150
Polish Zloty	-	-	10,362	-	10,362
Swedish Krona	1,163,964	-	-	25,638	1,189,602
Singapore Dollar	474,219	-	1,396	12,769	488,384
Total	\$ 45,245,889	\$ -	\$ 316,045	\$ 207,926	\$ 45,769,860

The System's exposure to foreign currency risk in U.S. dollars as of December 31, 2015, is summarized in the following table.

Currency Type	Equity	Fixed Income	Derivatives	Cash	Total
Australian Dollar	\$ -	\$ -	\$ (14,258)	\$ -	\$ (14,258)
Canadian Dollar	-	-	2,243,101	-	2,243,101
Chinese Yuan Renminbi	-	452,800	(654,510)	-	(201,710)
Danish Krone	-	-	10,484	-	10,484
Euro Currency Unit	-	146	(5,029,941)	349,472	(4,680,323)
Japanese Yen	-	-	-	27,896	27,896
Mexican Peso	-	2,452,170	3,896,662	83,431	6,432,263
Norwegian Krone	-	-	5,649	-	5,649
Polish Zloty	-	1,211,098	27,674	-	1,238,772
Pound Sterling	-	-	-	1,530	1,530
Swedish Krona	-	-	14,893	23,999	38,892
Swiss Franc	-	-	22,757	127,973	150,730
Total	\$ -	\$ 4,116,214	\$ 522,511	\$ 614,301	\$ 5,253,026

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
Years Ended December 31, 2016 and 2015

Note 5 – Investments (Continued)

Derivatives - Foreign exchange forward contracts are periodically employed by the System to hedge currency risk of investments in foreign currencies. Generally, derivatives are subject both to market and to counterparty risk. The derivatives used by the System typically have no greater risk than their physical counterparts and, in many cases, are offset by exposures elsewhere in the portfolio. Counterparty risk, the risk that the “other party” to a contract will default, is managed by careful screening of counterparties. Derivative securities are priced and accounted for at fair value. Foreign exchange forward contracts are valued at the price at which the transaction could be settled by offsets in the forward markets.

The System’s derivative transactions as of December 31, 2016 are summarized in the following table.

<u>Currency Type</u>	<u>Purchases</u>	<u>Unrealized Gain/Loss</u>	<u>Sells</u>	<u>Unrealized Gain/Loss</u>	<u>Total Unrealized Gain/Loss</u>
Australian Dollar	\$ -	\$ -	\$ 35,642	\$ (1,642)	(1,642)
Canadian Dollar	-	-	22,589	(215)	(215)
Swiss Franc	-	-	21,803	(1,144)	(1,144)
Danish Krone	-	-	14,763	(2,253)	(2,253)
Euro Currency Unit	-	-	132,167	(23,542)	(23,542)
Pound Sterling	-	-	71,738	(1,999)	(1,999)
Hong Kong Dollar	-	-	1,040	-	-
Japanese Yen	-	-	29,993	(1,604)	(1,604)
Norwegian Krone	-	-	11,712	(4,756)	(4,756)
Polish Zloty	-	-	11,695	(1,333)	(1,333)
Singapore Dollar	-	-	1,393	2	2
Total	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 354,535</u>	<u>\$ (38,486)</u>	<u>\$ (38,486)</u>

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
Years Ended December 31, 2016 and 2015

Note 5 – Investments (Continued)

The System's derivative transactions as of December 31, 2015 are summarized in the following table.

<u>Currency Type</u>	<u>Purchases</u>	<u>Unrealized Gain/Loss</u>	<u>Sells</u>	<u>Unrealized Gain/Loss</u>	<u>Total Unrealized Gain/Loss</u>
Australian Dollar	\$ 1,280,126	\$ 538	\$ 1,284,051	\$ (18,722)	\$ (18,184)
Canadian Dollar	-	-	2,429,638	(186,537)	(186,537)
Chinese Yuan Renminbi	665,480	9,639	1,341	(8)	9,631
Danish Krone	-	-	12,251	(1,768)	(1,768)
Euro Currency Unit	9,697,048	486,264	4,276,003	(95,160)	391,104
Mexican New Peso	337,557	10,934	4,282,092	(58,807)	(47,873)
Norwegian Krone	-	-	10,669	(5,020)	(5,020)
Polish Zloty	-	-	28,831	(1,158)	(1,158)
Swedish Krona	-	-	15,148	(255)	(255)
Swiss Franc	-	-	23,457	(700)	(700)
Total	<u>\$ 11,980,211</u>	<u>\$ 507,375</u>	<u>\$ 12,363,481</u>	<u>\$ (368,135)</u>	<u>\$ 139,240</u>

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
Years Ended December 31, 2016 and 2015

Note 5 - Investments (Continued)

As of December 31, 2016, the fixed income portfolio of the System had the following investment maturities:

Investment	Fair Value	Investment Maturities (in years)				N/A *
		<1	1 - 5	6 - 10	>10	
Fixed income						
Agencies	\$ 3,384,578	\$ -	\$ 1,951,858	\$ 1,432,720	\$ -	\$ -
Asset Backed Security	18,417,402	-	8,988,044	8,981,776	447,582	-
Commingled Funds	35,149,819	-	-	-	-	35,149,819
Corporate Debt	236,226,048	1,620,730	52,011,703	146,404,165	29,676,020	6,513,430
Derivatives	1,761,087	(30,617)	1,991,620	-	(199,916)	-
Foreign Sovereign	1,503,600	-	-	1,503,600	-	-
Mortgage Backed Security	176,024,872	-	-	4,540,822	171,484,050	-
Municipal	5,443,906	-	196,728	1,187,943	4,059,235	-
Treasury Notes and Bonds	<u>61,616,091</u>	<u>8,821,496</u>	<u>18,628,819</u>	<u>22,791,357</u>	<u>11,374,419</u>	-
Total Fixed Income	<u>539,527,403</u>	<u>\$ 10,411,609</u>	<u>\$ 83,768,772</u>	<u>\$ 186,842,383</u>	<u>\$ 216,841,390</u>	<u>\$ 41,663,249</u>

* Note - Amounts primarily relate to commingled funds and therefore a weighted average was not available.

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
Years Ended December 31, 2016 and 2015

Note 5 - Investments (Continued)

As of December 31, 2015, the fixed income portfolio of the System had the following investment maturities:

Investment	Fair Value	Investment Maturities (in years)				N/A *
		<1	1 - 5	6 - 10	>10	
Fixed income						
Agencies	\$ 5,910,966	\$ 7,220	\$ 3,942,888	\$ 8,067	\$ 1,952,791	\$ -
Asset Backed Security	24,438,890	-	6,663,897	7,660,687	10,114,306	-
Commingled Funds	117,905,090	-	-	-	-	117,905,090
Corporate Debt	159,045,389	4,141,202	61,694,195	53,989,273	30,427,091	8,793,629
Derivatives	(2,988,640)	(906)	-	99,093	(29,802)	(3,057,025)
Foreign Sovereign	22,840,121	2,724,751	4,736,830	11,777,424	3,601,116	-
Mortgage Backed Security	135,151,524	65,541	8,895,336	6,443,401	119,747,246	-
Municipal	4,913,533	-	309,543	553,242	4,050,747	-
Treasury Notes and Bonds	<u>137,768,334</u>	<u>4,312,083</u>	<u>43,277,402</u>	<u>55,348,603</u>	<u>34,830,246</u>	-
Total Fixed Income	<u>604,985,207</u>	<u>\$ 11,249,891</u>	<u>\$ 129,520,091</u>	<u>\$ 135,879,790</u>	<u>\$ 204,693,741</u>	<u>\$ 123,641,694</u>

* Note - Amounts primarily relate to commingled funds and therefore a weighted average was not available.

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
Years Ended December 31, 2016 and 2015

Note 5 - Investments (Continued)

As of December 31, 2016, the fixed income portfolio of the System had the following investment ratings:

Investment	Fair Value	Ratings							
		AAA	AA	A	BBB	BB	B	CCC& Below	Not Rated
Fixed income									
Agencies	\$ 3,384,578	\$ -	\$ 3,382,492	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,086
Asset Backed Security	18,417,402	13,720,413	315,854	-	-	-	-	447,582	3,933,553
Commingled Funds	35,149,819	-	-	-	-	-	-	-	35,149,819
Corporate Debt	236,226,048	1,283,302	5,897,549	28,201,323	76,234,613	44,649,385	43,049,133	4,668,682	32,242,061
Derivatives	1,761,087	-	-	-	-	-	-	-	1,761,087
Foreign Sovereign	1,503,600	-	-	-	1,503,600	-	-	-	-
Mortgage Backed Security	176,024,872	1,959,137	66,487,270	1,010,059	848,978	-	-	-	105,719,429
Municipal	5,443,906	1,695,605	1,230,246	2,518,054	-	-	-	-	-
Treasury Notes and Bonds	<u>61,616,091</u>	<u>-</u>	<u>61,616,091</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total Fixed Income	<u>\$ 539,527,403</u>	<u>\$ 18,658,457</u>	<u>\$ 138,929,502</u>	<u>\$ 31,729,436</u>	<u>\$ 78,587,191</u>	<u>\$ 44,649,385</u>	<u>\$ 43,049,133</u>	<u>\$ 5,116,264</u>	<u>\$ 178,808,035</u>

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
Years Ended December 31, 2016 and 2015

Note 5 - Investments (Continued)

As of December 31, 2015, the fixed income portfolio of the System had the following investment ratings:

Investment	Fair Value	Ratings							
		AAA	AA	A	BBB	BB	B	CCC& Below	Not Rated
Fixed income									
Agencies	\$ 5,910,966	\$ -	\$ 5,732,622	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 178,344
Asset Backed Security	24,438,890	9,737,931	6,415,989	570,546	248,212	851,345	762,242	2,244,988	3,607,637
Commingled Funds	117,905,090	-	-	-	-	-	-	-	117,905,090
Corporate Debt	159,045,389	1,793,786	7,904,086	35,848,805	68,236,628	21,778,238	8,690,011	3,067,961	11,725,875
Derivatives	(2,988,640)	-	-	-	-	-	-	-	(2,988,641)
Foreign Sovereign	22,840,121	395,542	2,100,040	8,273,928	3,289,691	2,726,452	-	161,990	5,892,477
Mortgage Backed Security	135,151,524	971,077	81,410,052	3,413,491	2,181,159	664,631	1,819,896	3,603,369	41,087,850
Municipal	4,913,533	1,222,011	2,096,458	1,106,790	130,405	14,262	57,560	-	286,047
Treasury Notes and Bonds	137,768,334	-	137,766,313	-	-	-	-	-	2,021
Total Fixed Income	\$ 604,985,207	\$ 14,120,347	\$ 243,425,560	\$ 49,213,560	\$ 74,086,095	\$ 26,034,928	\$ 11,329,709	\$ 9,078,308	\$ 177,696,700

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
Years Ended December 31, 2016 and 2015

Note 6 - Fair Value Measurements

Fair value measurements are categorized 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:

- Level 1: unadjusted quoted prices for identical instruments in active markets
- Level 2: quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs are observable
- Level 3: significant inputs are unobservable

The following schedule presents investments categorized according to the fair value hierarchy, and is proceeded with additional information regarding investments measured at the net asset value as of December 31, 2016:

Investments by fair value level	12/31/2016	Fair Value Measurements Using		
		Quoted Prices in Active Markets Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Equity	\$ 639,807,625	\$ 636,258,397	\$ 3,533,147	\$ 16,081
Fixed Income	413,737,686	96,765,911	316,971,775	-
Total investments by fair value level	1,053,545,311	733,024,308	320,504,922	16,081
Investments measured at the net asset value (NAV)				
Equity	710,389,141			
Fixed Income	125,789,717			
Real Estate	287,996,774			
Alternative Investments	173,578,426			
Total investments measured at the NAV	1,297,754,058			
Total investments	\$ 2,351,299,369			
Securities lending collateral	\$ 11,130,677			

Investment	Fair Value	Unfunded Commitments	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Equity	\$ 710,389,141	\$ -	Daily, Monthly	1 - 30 Days
Fixed Income	125,789,717	-	Monthly	30 Days
Real Estate	287,996,774	9,444,262	N/A	N/A
Alternative Investments	173,578,426	242,114,969	N/A	N/A
Total investments measured at the NAV	1,297,754,058	251,559,231		

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
Years Ended December 31, 2016 and 2015

Note 6 - Fair Value Measurements (Continued)

The following schedule presents investments categorized according to the fair value hierarchy, and is proceeded with additional information regarding investments measured at the net asset value as of December 31, 2015:

Investments by fair value level	12/31/2015	Fair Value Measurements Using		
		Quoted Prices in Active Markets Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Equity	\$ 531,763,082	\$ 527,982,353	\$ 3,780,512	\$ 217
Fixed Income	453,126,946	215,421,253	237,705,693	-
Total investments by fair value level	984,890,028	743,403,606	241,486,205	217
Investments measured at the net asset value (NAV)				
Equity	632,042,295			
Fixed Income	151,858,261			
Real Estate	270,796,297			
Alternative Investments	114,895,997			
Total investments measured at the NAV	1,169,592,850			
Total investments	\$ 2,154,482,878			
Securities lending collateral	\$ 50,952,037			

Investment	Fair Value	Unfunded Commitments	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Equity	\$ 632,042,295	\$ -	Daily, Monthly	1 - 30 Days
Fixed Income	151,858,261	-	Monthly	30 Days
Real Estate	270,796,297	680,441	N/A	N/A
Alternative Investments	114,895,997	308,779,918	N/A	N/A
Total investments measured at the NAV	1,169,592,850	309,460,359		

Alternative Investments – These investments are structured as limited partnerships or limited liability companies. Strategies include private equity, private credit, infrastructure and diversifying strategies. These investments include those with a perpetual life and the ability to redeem as well as investments with an approximate life of 10 years where redemptions are restricted. There are no plans to liquidate the total portfolio.

Equity – These investments are structured as mutual funds, trusts, limited partnerships or limited liability companies. The funds have a perpetual life. Redemption frequencies range from daily to monthly. There are no plans to liquidate the portfolio.

Fixed Income – These investments are structured as limited partnerships. The funds have a perpetual life. The redemption frequency is monthly. There are no plans to liquidate the portfolio.

Note 6 - Fair Value Measurements (Continued)

Real Estate – These investments are structured as trusts, limited partnerships or limited liability companies. These investments include those with a perpetual life and the ability to redeem as well as investments with an approximate life of 10 years where redemptions are restricted. There are no plans to liquidate the total portfolio.

Note 7 – Securities Lending Transactions

Under the authority of State of Washington RCW 41.28.005 and the Seattle Municipal Code 4.36.130, the System's Board of Administration adopted investment policies that define eligible investments, which include securities lending transactions. Through a custodial agent, the System participates in a securities lending program whereby securities are lent for the purpose of generating additional income to the System. The System lends securities from its investment portfolio on a collateralized basis to third parties, primarily financial institutions. The market value of the required collateral must meet or exceed 102% of the market value of the securities lent, providing a margin against a decline in the market value of the collateral, and is limited to a volume of less than \$75 million. The contractual agreement with the System's custodian provides indemnification in the event the borrower fails to return the securities lent or fails to pay the System income it is due on the securities lent. Cash and U.S. government securities were received as collateral for these loans. The System invests cash collateral received; accordingly, investments made with cash collateral appear as an asset. A corresponding liability is recorded as the System must return the cash collateral to the borrower upon the expiration of the loan. Gross income from securities lending transactions are recorded in the operating statements as well as the various fees paid to the institution that oversees the lending activity.

As of December 31, 2016, the fair value of securities on loan was \$10,791,203. Associated cash collateral totaling \$11,125,376 was received. The fair market value of the reinvested collateral was \$11,130,677 at December 31, 2015, which includes an unrealized gain totaling \$5,301.

As of December 31, 2015, the fair value of securities on loan was \$52,498,078. Associated cash collateral totaling \$53,702,631 was received. The fair market value of the reinvested collateral was \$50,952,037 at December 31, 2014, which includes an unrealized loss totaling \$2,681,394.

Note 8 – Commitments

The System has entered into capital commitments to fund partnership interests in certain alternative investments. At December 31, 2016, the System has unfunded commitments of \$251,559,231 to these partnerships.

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
Years Ended December 31, 2016 and 2015

Note 9 – Net Pension Liability

The components of the net pension liability as of December 31, 2016 were as follows:

Total Pension Liability	\$3,793,551,233
Plan Fiduciary Net Position	<u>2,488,498,164</u>
Net Pension Liability	<u>\$1,305,053,069</u>

Plan Fiduciary Net Position as a Percentage of the Total Pension Liability 65.6%

Actuarial assumptions

The total pension liability was determined by an actuarial valuation as of December 31, 2016, using the following actuarial assumptions, applied to all periods including the measurement period:

Investment Rate of Return:	7.50% compounded annually, net of expenses
Salary Increases:	4.00%

* The actuarial assumptions used in the January 1, 2016 valuation, and the mortality tables included in Appendix A of the valuation, were based on the results of an actuarial experience study for the period January 1, 2010 through December 31, 2013.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of geometric real rates of return for each major asset class included in the pension plan's target asset allocation as of December 31, 2016 (see discussion of pension plan's investment policy) are summarized in the following table:

<u>Asset Class</u>	<u>Long-Term Expected Real Rate of Return</u>
Equity	
Public Equity	4.99%
Private Equity	6.25%
Fixed Income	
Broad Fixed Income	0.62%
Credit Fixed Income	3.79%
Real Assets	
Real Estate	3.25%
Infrastructure	2.75%
Diversifying Strategies	3.25%

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
Years Ended December 31, 2016 and 2015

NOTE 9 – Net Pension Liability (Continued)

The above table reflects the expected (30 year) real rate of return for each major asset class. The expected inflation rate is projected at 3.25% for the same time period.

Discount Rate. The discount rate used to measure the total pension liability was 7.50%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and the participating governmental entity contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods on projected benefit payment to determine the total pension liability.

Sensitivity of the net pension liability. The following presents the net pension liability of the System, calculated using the discount rate of 7.50%, as well as what the System's net pension liability would be if it were calculated using a discount rate that is 1% lower or 1% higher than the current rate:

1% Decrease (6.50%)	Current Discount Rate (7.50%)	1% Increase (8.50%)
\$1,766,195,608	\$1,305,053,069	\$917,301,479

REQUIRED SUPPLEMENTARY INFORMATION

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

	<u>December 31, 2016</u>	<u>December 31, 2015</u>	<u>December 31, 2014</u>
Total pension liability			
Service Cost	\$ 106,450,550	\$ 100,415,811	\$ 94,017,562
Interest	268,005,035	254,539,867	241,885,785
Benefit changes	-	-	-
Difference between expected and actual experience	(7,653,756)	1,983,005	-
Changes of assumptions	-	-	-
Benefits payments	(168,967,298)	(159,349,807)	(150,239,208)
Refunds of contributions	(16,456,570)	(16,137,840)	(15,103,615)
Net change in total pension liability	181,377,961	181,451,036	170,560,524
Total pension liability - beginning	<u>3,612,173,272</u>	<u>3,430,722,236</u>	<u>3,260,161,712</u>
Total pension liability - ending (a)	<u>3,793,551,233</u>	<u>3,612,173,272</u>	<u>3,430,722,236</u>
Plan net position			
Contributions - employer	108,454,496	101,153,403	89,988,898
Contributions - member	71,755,857	65,779,216	63,969,504
Net investment income	189,941,169	7,083,633	122,510,395
Benefits payments	(168,967,298)	(159,349,807)	(150,239,208)
Administrative expense	(9,250,653)	(8,211,137)	(5,330,764)
Refunds of contributions	(16,456,570)	(16,137,840)	(15,103,615)
Other	-	-	-
Net change in plan net position	175,477,001	(9,682,532)	105,795,210
Plan net position - beginning	<u>2,313,021,163</u>	<u>2,322,703,695</u>	<u>2,216,908,485</u>
Plan net position - ending (b)	<u>2,488,498,164</u>	<u>2,313,021,163</u>	<u>2,322,703,695</u>
Net pension liability - ending (a) - (b)	<u>\$ 1,305,053,069</u>	<u>\$ 1,299,152,109</u>	<u>\$ 1,108,018,541</u>
Ratio of plan net position to total pension liability -- (b) / (a)	65.60%	64.03%	67.70%
Covered employee payroll	\$ 708,600,000	\$ 641,700,000	\$ 630,900,000
Net pension liability as a percentage of covered-employee payroll	184.17%	202.45%	175.63%

Note: Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
SCHEDULE OF EMPLOYER CONTRIBUTIONS
(Dollars in Millions)

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Actuarially determined employer contribution	\$107.9	\$100.9	\$90.3	\$77.1	\$62.5	\$72.3	\$93.9	\$46.9	\$46.2	\$40.1
Actual employer contributions	108.5	101.2	90.0	77.1	62.5	50.3	45.2	46.7	46.0	40.3
Annual contribution deficiency (excess)	(0.6)	(0.3)	0.3	0.0	0.0	22.0	48.7	0.2	0.2	(0.2)
Covered-employee payroll	708.6	641.7	630.9	597.9	567.8	557.0	563.2	580.9	572.4	501.9
Actual contributions as a percentage of covered-employee payroll	15.31%	15.77%	14.27%	12.90%	11.01%	9.03%	8.03%	8.04%	8.04%	8.03%

Notes to Schedule:

Valuation Date: Actuarially determined contribution rates are calculated as of January 1, one year prior to the fiscal year in which the contributions will apply.

Methods and Assumptions used to determine contribution rates for fiscal year 2016 are:

Actuarial cost method	Individual Entry Age Normal
Amortization method	Level percent
Remaining amortization period	Closed 30 years as of January 1, 2013 Valuation
Asset valuation method	5 years smoothed, Non-asymptotic
Inflation	3.25%
Salary increases	4.00%, differs slightly from actuarial valuation due to exclusion of 0.50% active membership growth assumption for GASB calculations.
Investment rate of return	7.50%, net of pension plan investment expense, and gross of administrative expenses
Cost of Living Adjustments	As noted in the January 1, 2014 actuarial valuation.

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
SCHEDULE OF INVESTMENT RETURNS

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Total Portfolio	8.62%	0.28%	5.67%

Note: These returns are calculated on a money-weighted rate of return basis. The schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

ADDITIONAL INFORMATION

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
SCHEDULE OF ADMINISTRATIVE EXPENSES
Years Ended December 31, 2016 and 2015

	Budget	Actual Expense	
	<u>2016</u>	<u>2016</u>	<u>2015</u>
Personnel Services			
Salaries	\$ 2,575,798	\$ 2,849,584	\$ 2,225,744
Benefits	<u>812,160</u>	<u>914,188</u>	<u>761,465</u>
Total Personnel Services	<u>3,387,958</u>	<u>3,763,772</u>	<u>2,987,209</u>
Maintenance and Operations			
Professional Services	4,301,926	3,226,834	3,232,194
Office rent	248,851	341,023	246,358
Data processing and central costs	1,838,338	1,467,775	1,326,362
Office supplies and other expenses	267,309	325,214	301,260
Postage and telephone	59,047	44,915	51,950
Travel	61,884	65,576	55,807
Training	<u>19,618</u>	<u>15,544</u>	<u>9,997</u>
Total Maintenance and Operations	<u>6,796,973</u>	<u>5,486,881</u>	<u>5,223,928</u>
Total Administrative Expenses	<u>\$ 10,184,931</u>	<u>\$ 9,250,653</u>	<u>\$ 8,211,137</u>

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
SCHEDULE OF INVESTMENT EXPENSES
Year Ended December 31, 2016

Investment Management Fees:	
Adams Street	\$ 516,027
AEW Core Property Trust	619,586
AQR	70,057
Ares	128,417
Babson Tower Square	9,642
BlackRock	244,917
Bluebay	72,834
Brookfield	483,123
Capital Point Partners	42,513
Carlyle Realty	59,109
DFA International	414,121
Dover Street	69,325
Global Infrastructure	177,613
Heitman American	569,443
JP Morgan	1,862,067
Nogales Investors	18,212
Oaktree	12,666
Parametric Delta Shift	351,470
PCCP	45,173
PIMCO	874,101
Pugh	197,329
Q-BLK Strategic Partners	127,160
Reams	233,873
RhumbLine	99,662
Russell	234,322
Stonepeak	36,626
Smith Whiley	59,079
TA Realty Associates	138,976
TCW Crescent	17,413
Western Asset	401,467
Total Investment Management Fees	<u>8,186,323</u>
Performance Measurement:	
NEPC LLC	295,000
Custodial Services:	
Bank of New York Mellon	<u>426,443</u>
Total Investment Expenses	<u><u>8,907,766</u></u>
Securities Lending Services:	
Bank of New York Mellon	\$ 66,376

ACTUARIAL

Actuarial Valuation

Seattle City Employees' Retirement System

January 1, 2017 Actuarial Valuation

Prepared by:

Nick J. Collier, ASA, EA, MAAA
Consulting Actuary

Daniel R. Wade, FSA, EA, MAAA
Consulting Actuary

Julie D. Smith, FSA, EA, MAAA
Actuary

Milliman, Inc.
1301 Fifth Avenue, Suite 3800
Seattle, WA 98101-2605
Tel +1 206 624 7940
milliman.com



1301 Fifth Avenue
Suite 3800
Seattle, WA 98101-2605
USA

Tel +1 206 624 7940
Fax +1 206 623 3485

milliman.com

June 30, 2017

Retirement Board
Seattle City Employees' Retirement System
720 Third Avenue, Suite 900
Seattle, WA 98104

Dear Members of the Board:

As requested, we have prepared an actuarial valuation of the Seattle City Employees' Retirement System (SCERS) as of January 1, 2017. This report reflects the benefit provisions and contribution rates in effect as of January 1, 2017.

Actuarial Certification

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by SCERS staff. This information includes, but is not limited to, statutory provisions, employee data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. It should be noted that the valuation was based on the DRAFT audited financial statements, as the final audited statements were not yet available. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations), and which, in combination, offer a reasonable estimate of anticipated experience affecting the System. Further, in our opinion, each actuarial assumption used is reasonably related to the experience of the Plan and to reasonable expectations which, in combination, represent our best estimate of anticipated experience under the System.

This valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an

This work product was prepared solely for SCERS for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

analysis of the potential range of future measurements. The Retirement Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix A at the May 8, 2014 meeting.

Actuarial computations presented in this report are for purposes of determining the recommended funding amounts for SCERS. Actuarial computations presented for financial reporting in a separate report under GASB Statements No. 67 and 68 are for purposes of assisting SCERS and participating employers in fulfilling their financial accounting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of SCERS' funding requirements and goals. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

Milliman's work is prepared solely for the internal business use of SCERS. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exception(s):

- a) SCERS may provide a copy of Milliman's work, in its entirety, to the System's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the System.
- b) SCERS may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the City of Seattle. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report, along with the information contained in the Comprehensive Annual Financial Report, is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.



We would like to express appreciation to the system staff, including Mr. Jeff Davis, who gave substantial assistance in supplying the data on which this report is based.

Respectfully submitted,

Nick J. Collier, ASA, EA, MAAA
Principal and Consulting Actuary

Daniel R. Wade, FSA, EA, MAAA
Principal and Consulting Actuary

Julie D. Smith, FSA, EA, MAAA
Actuary

NJC/DRW/JDS/nlo

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Section 1 Summary of the Findings



Overview

	January 1, 2017	January 1, 2016
Total Actuarial Contribution Rate	25.00%	25.32%
Funding Ratio	68.1%	66.5%

We are pleased to present the results of the January 1, 2017 actuarial valuation. This valuation determines the minimum actuarially required employer contribution rate payable beginning January 1, 2018 based on the Board's funding policy. Several key points of the valuation are summarized as follows:

- **Investment Returns:** For the year ending December 31, 2016, the SCERS assets returned around 8.4% on a market value basis (net of investment expenses) and 7.6% on an actuarial value basis. These rates of return were greater than the assumed rate. From January 1, 2016 to December 31, 2016, the SCERS assets were assumed to earn 7.50%. The result is an actuarial gain on assets for the 2016 year. Note that only one-fifth of this gain will be recognized in the current year Actuarial Value of Assets (AVA), due to the asset smoothing method; see Section 3 of this report for details. Currently, a net asset loss is being deferred in the AVA; this implies that, if all actuarial assumptions are met in future years, the minimum actuarially required contribution rate is expected to increase in future years.
- **City Contribution Rate:** The minimum actuarially required contribution rate has decreased from the prior valuation, from 25.32% to 25.00% of payroll. Since the employees contribute a fixed 10.03% of pay, the minimum actuarially required employer contribution rate has decreased from 15.29% of pay to 14.97%. We suggest the Board consider recommending that the City Council maintain the current 15.29% employer contribution rate, as rates are projected to increase in the future. This approach should result in a smaller increase in future years. We can discuss this at the August Board meeting.
- **Funding Progress:** On the basis of the January 1, 2016 actuarial valuation, the Funding Ratio (which is measured as the AVA divided by the Actuarial Accrued liability) was 66.5%. Based on the January 1, 2017 valuation, the Funding Ratio has increased to 68.1%. The most significant factor causing this increase was the amortization payment made by the City during the prior year. Note that these Funding Ratios are calculated using the AVA; Funding Ratio results based on the Market Value of Assets (MVA) are shown in Table 1 at the end of this section.
- **Funding Policy:** In August 2013, the Seattle City Council passed a resolution to formally close the period over which any SCERS UAAL will be amortized. This resolution stipulated that the 30-year amortization period would be closed as of the January 1, 2013 actuarial valuation. The result is that, for purposes of the January 1, 2017 valuation calculation, a 26-year remaining closed period is in effect.

**Overview
(continued)**

- **SCERS Plan 2:** New members entering SCERS January 1, 2017 and later will join Plan 2. This valuation only includes Plan 1 members, so we will not reflect the impact of Plan 2 until next valuation.

The effect of closing the UAAL amortization period is that the total SCERS UAAL is projected to be fully paid off over the next 26 years from the January 1, 2017 valuation date.

**Minimum Actuarially
Required Contribution
Rate**

Based on the actuarial valuation of the benefits in effect under the SCERS as of January 1, 2017, the total minimum actuarially required contribution rate decreased from 25.32% to 25.00% for the year beginning January 1, 2018.

The current contribution rates for the death benefit program are projected to be sufficient to finance the \$2,000 death benefit.

Based on a fixed member contribution rate of 10.03%, the City's contribution rate may be decreased from 15.29% to 14.97% effective January 1, 2018. This reflects the City's commitment to fund at least the minimum actuarially required contribution rate, which is based on a 26-year amortization of the UAAL beginning January 1, 2017. A greater City contribution rate would result in a shorter amortization of the UAAL, if all actuarial assumptions are met.

It should be noted that the contribution rate of 25.00% of pay is calculated based on the AVA; see Section 3 of this report for details. This AVA is currently deferring a net actuarial asset loss of \$75.6 million under the asset smoothing method. This means that if no actuarial gains or losses occur in the future, the minimum actuarially required contribution rate would increase over the next several years as the deferred asset losses are phased into the AVA.

We have performed a five-year projection of the contribution rates if 7.50% was returned on the Market Value of Assets in each future year (and assuming that no other actuarial gains or losses occur and there are no other changes to assumptions or benefit provisions). This projection shows the expected impact of recognizing the currently deferred asset gains and losses over time. The result is ultimately an increase in the contribution rate over the next several years.

**Minimum Actuarially
 Required Contribution
 Rate
 (continued)**

It is likely that the Market Value of Assets will not return an annual average of exactly 7.50% over all future years. To show the potential impact of volatility in asset returns on the contribution rate, we have performed a projection of the contribution rates at the 5th and 95th percentile expected returns (thereby yielding a 90% asset-return-based confidence interval for the specified rates). These projections are shown in the table below.

Projected Total Actuarial Required Contribution Rate		
Contribution Year*	Assuming 7.50% Future Returns	90% Asset Return Confidence Interval
2018	25.00%	25.00% - 25.00%
2019	25.08%	24.35% - 25.82%
2020	25.41%	23.86% - 27.05%
2021	25.67%	23.10% - 28.47%
2022	25.63%	21.86% - 29.85%
2023	25.63%	20.45% - 31.52%

* Contribution year lags valuation year by one year. For example: Contribution Year 2018 is based on the 2017 valuation results, amortized over 26 years beginning in 2017, if the increase takes place in 2017.

	Compounded Average Return for Period	
	Percentile	
	95th	5th
1-Year Period	-11.3%	26.0%
2-Year Period	-6.6%	19.7%
3-Year Period	-4.4%	17.0%
4-Year Period	-3.1%	15.4%
5-Year Period	-2.2%	14.4%

The 90% confidence interval results are based on the 5th and 95th percentile compounded returns for one-, two-, three-, four- and five-year periods. Since actuarial assets are used to calculate contribution rates, deferred gains or losses would continue to decrease or increase the minimum actuarially required contribution rate after these dates.

See Section 8 of this report for a detailed discussion of the projected contribution rates.

Funding Valuation

This report provides information relevant to the funding of SCERS. Information for financial reporting purposes will be provided in a separate GASB 67 and 68 Disclosure report.

Funding Progress

On the basis of the January 1, 2016 actuarial valuation, the Funding Ratio was 66.5%. Based on the January 1, 2017 valuation, the Funding Ratio is 68.1%. The increase in the Funding Ratio is due mainly to the UAAL payment made by the City in 2016. See Section 3 of this report for a full discussion.

See the following section titled Analysis of Change for more details.

Analysis of Change

The following table shows the sources of change in the actuarial contribution rate and the funding ratio between the prior and current actuarial valuations.

Sources of Change	Actuarial Contrib. Rate	Funding Ratio
January 1, 2016 Actuarial Valuation	25.32 %	66.5 %
Expected Valuation-to-Valuation Change	-	1.1 %
Asset Gain/Loss on Actuarial Value	(0.02)%	-
Salary/Membership Growth Different Than Expected	(0.22)%	0.3 %
Changes in Assumptions	-	-
Other	(0.08)%	0.2 %
Total Change	(0.32)%	1.6 %
January 1, 2017 Actuarial Valuation	25.00 %	68.1 %

Contingent COLA Benefits

The Seattle Municipal Code allows for an increase in the cost-of-living adjustment (COLA) available to current and future retired members. Currently, the Floor COLA (also referred to as a Restoration of Purchasing Power COLA) is at the 65% level. The enhanced COLA benefit (70% Floor COLA) does not become effective until the System attains at least a 100% funding level.

Since it is unknown when this benefit will become effective, especially given the current funded status of the System, we have not included the valuation of these potential benefit changes (i.e., the increase in the ROPP COLA to the 70% level) in this valuation. See Appendix A of this report for further details.

SCERS Plan 2

SCERS Plan 2 plan provides a somewhat lower level of benefits than the current plan and is therefore expected to have a lower Normal Cost rate. We have not reflected the impact of the new plan in this valuation as no current employees are members of this plan as of the valuation date. We will reflect the lower costs of Plan 2 in the contribution rate in future valuations as Plan 2 members join SCERS.

We have assumed that future UAAL contributions will be made on the combined SCERS Plan 1 and Plan 2 payroll. If contributions were only made on the Plan 1 payroll, this would materially affect our calculations.

Membership Information

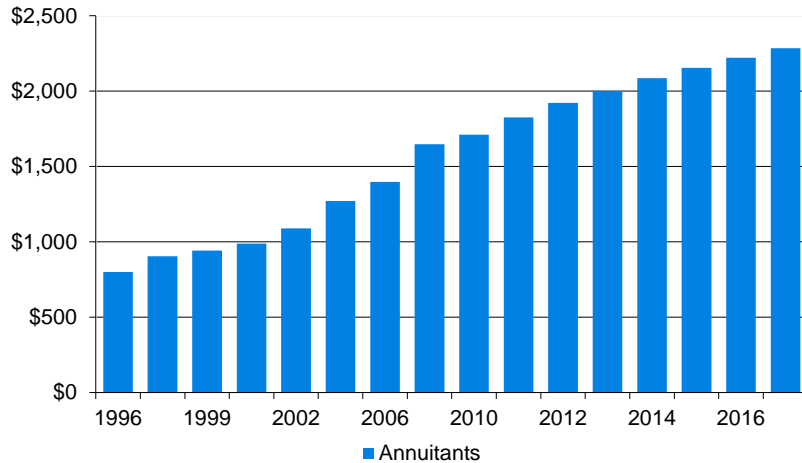
Total valuation payroll has increased by 5.7% since the 2016 valuation, and active membership has increased by 3.0% during this same period. As of January 1, 2017, the annualized payroll is \$726 million for 9,151 active members.



Membership Information (continued)

Retired member counts and average retirement benefit amounts continue to increase steadily. As of January 1, 2017, there were 6,382 retired members and beneficiaries with an average benefit of \$2,285 per month. This represents a 2.6% increase in count and a 2.9% increase in average benefit amount.

Average Monthly Retirement Benefit



Analysis of Change in Member Population

The following table summarizes the year-to-year change in member population.

	Actives	Deferred Members*	Retirees/ Beneficiaries
January 1, 2016 Valuation	8,882	2,197	6,223
Termination with Refund / Death	(144)	(72)	(237)
Termination without Refund	(246)	246	-
Service Retirement	(270)	(43)	313
Disability Retirement	0	-	-
Rehires	24	(24)	-
New Entrants / Beneficiaries	905	48	83
Data Corrections	-	-	-
January 1, 2017 Valuation	9,151	2,352	6,382

* Counts include non-vested terminated members whose contributions are still on deposit with SCERS as of valuation date.

Summary Exhibit

A summary of the key results of this valuation, along with a comparison to the January 1, 2016 valuation, is shown in Table 1.

Note that the valuation measures are based on the Actuarial Value of Assets, which recognizes asset gains and losses over a five-year period; however, we have also shown key measures using the Market Value of Assets.

Graphs 1 and 2 and the associated data table show historical asset and liability information, including the Present Value of Future Benefits (PVFB) and Present Value of Future Normal Costs (PVFNC), at previous valuation dates.

Seattle City Employees' Retirement System Actuarial Valuation

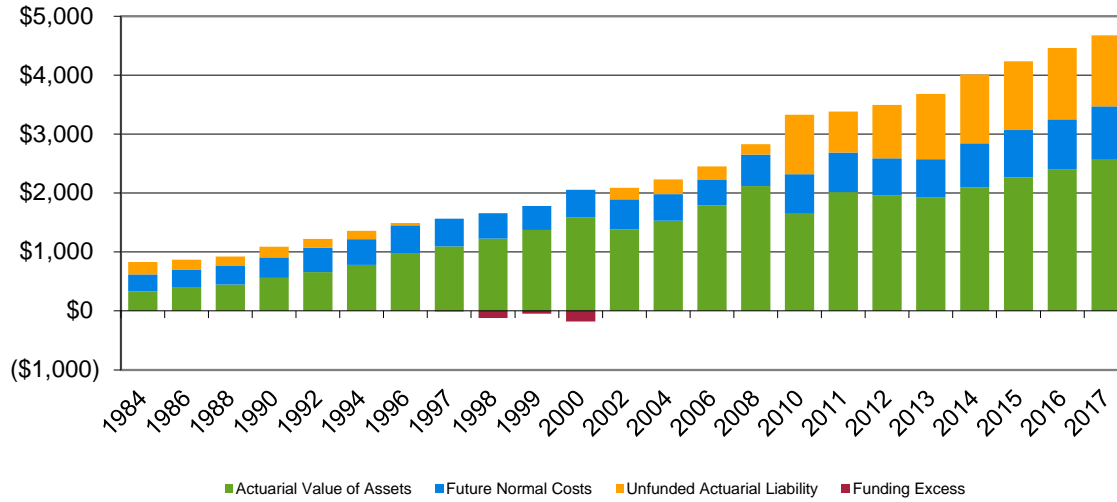
Table 1 Summary of Results

	Valuation January 1, 2017	Valuation January 1, 2016	Percentage Change
I. Total Membership			
A. Active Members	9,151	8,882	3.0%
B. Retired Members & Beneficiaries	6,382	6,223	2.6%
C. Vested Terminated Members*	2,352	2,197	7.1%
D. Total	17,885	17,302	3.4%
II. Pay as of Valuation Date			
A. Annual Total (\$millions)	\$ 725.6	\$ 686.7	5.7%
B. Annual Average	\$ 79,288	\$ 77,317	2.5%
III. Average Monthly Benefit Paid to Current Retirees and Beneficiaries			
A. Service Retirement	\$ 2,417	\$ 2,356	2.6%
B. Disability Retirement	1,351	1,315	2.8%
C. Surviving Spouse and Dependents	1,405	1,357	3.6%
D. Total	\$ 2,285	\$ 2,221	2.9%
IV. Actuarial Accrued Liability (\$millions)			
A. Active Members	\$ 1,791.3	\$ 1,730.0	3.5%
B. Retired Members	1,783.6	1,694.2	5.3%
C. Vested Terminated Members	191.5	180.9	5.9%
D. Total	\$ 3,766.4	\$ 3,605.1	4.5%
V. Assets			
A. Actuarial Value of Assets (\$millions)	\$ 2,564.1	\$ 2,397.1	7.0%
VI. Unfunded Actuarial Accrued Liability or Surplus Funding (\$millions)	\$ 1,202.3	\$ 1,208.0	(0.5)%
VII. Amortization of UAAL			
Total Contribution Rate Needed for 26-Year** Amortization (as a % of Payroll)	25.00%	25.32%	(1.3)%
VIII. Funding Ratio	68.1%	66.5%	2.4%
IX. Normal Cost as a Percent of Salary	15.83%	15.80%	0.2%
Market Value of Assets (MVA) -- For Informational Purposes Only			
X. Assets Based on MVA			
A. Market Value of Assets (\$millions)	\$ 2,488.5	\$ 2,313.0	7.6%
XI. Amortization of UAAL Based on MVA			
A. Total Contribution Rate Needed for 26-Year** Amortization (as a % of Payroll)	25.61%	26.02%	(1.6)%
XII. Funding Ratio Based on MVA	66.1%	64.2%	3.0%

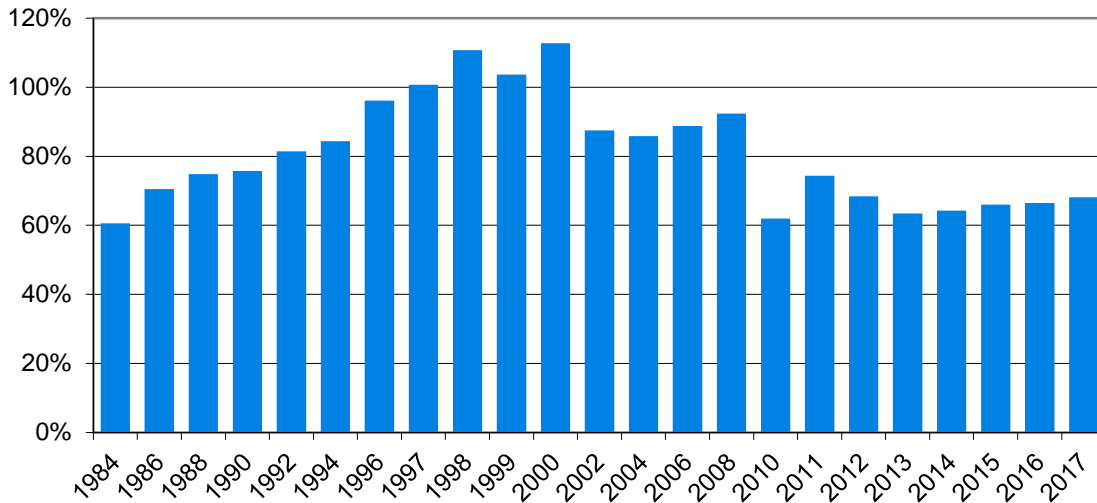
* Includes non-vested terminated members whose contributions are still on deposit with SCERS as of valuation date.

** Amortization method is closed 30-year beginning with January 1, 2013 valuation. 2017 values shown are over 26 years.

Graph 1 Historical Asset and Liability Comparison



Graph 2 Historical Funding Ratios



Year	(in \$Millions)				Funding Ratio
	PVFB	Assets	PVFNC	UAAL	
2006	\$ 2,448.5	\$ 1,791.8	\$ 431.0	\$ 225.8	88.8%
2008	2,825.8	2,119.4	531.2	175.2	92.4%
2010	3,328.7	1,645.3	674.9	1,008.5	62.0%
2011	3,379.6	2,013.7	670.6	695.4	74.3%
2012	3,494.1	1,954.3	634.8	905.0	68.3%
2013	3,679.8	1,920.1	654.5	1,105.2	63.5%
2014	4,007.3	2,094.3	747.2	1,165.8	64.2%
2015	4,231.3	2,266.7	798.7	1,165.9	66.0%
2016	4,458.1	2,397.1	853.0	1,208.0	66.5%
2017	4,672.6	2,564.1	906.2	1,202.3	68.1%

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Section 2 Scope of the Report



This report presents the actuarial valuation of the Seattle City Employees' Retirement System as of January 1, 2017.

A summary of the findings resulting from this valuation is presented in the previous section. Section 3 describes the assets of the System. A summary of the assets is set forth in Table 2. Sections 3, 4, and 5 describe how the obligations of the System are to be met under the actuarial cost method in use.

Section 6 discloses additional historical information.

Section 7 sets forth estimated actuarial gains or losses from the various sources. Section 8 shows projections of the System's funding under both optimistic and pessimistic scenarios. Section 9 shows projections of SCERS benefit payments and dollar contributions over a 10-year period following the actuarial valuation.

Appendix A is a summary of the actuarial procedures and assumptions used to compute the liabilities and contributions shown in this report.

The current benefit structure, as determined by the provisions of the governing law on January 1, 2017, is summarized in Appendix B. Schedules of valuation data classifying the data used in the valuation by various categories of contributing members, former contributing members and beneficiaries make up Appendix C.

Comparative statistics are presented on the System's membership and contribution rates. Appendix D is a glossary of actuarial terms used in this report.

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Section 3 Assets



In many respects, an actuarial valuation can be regarded as an inventory process. The inventory is taken as of the actuarial valuation date, which for this valuation is January 1, 2017. On that date, the assets available for the payment of benefits are appraised. These assets are compared with the actuarial liabilities, which are generally well in excess of the assets. The actuarial process thus leads to a method of determining what contributions by members and their employers are needed to pay expected benefits.

This section of the report deals with the asset determination. In the next section, the actuarial liabilities will be discussed. Section 5 will deal with the process for determining required contributions, based on the relationship between the assets and the actuarial liabilities.

Financial Exhibits

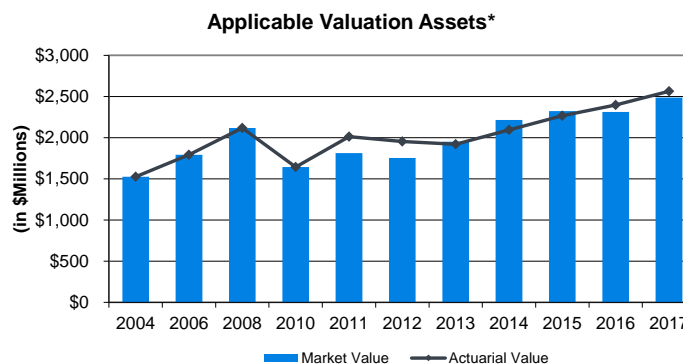
Table 2 shows the calculation of the Actuarial Value of Assets as of January 1, 2017. Note that a net loss is currently being deferred. This means that, if the system earns 7.50% in the future, the AVA will experience an actuarial loss over upcoming years as the remaining portions of deferred losses are recognized. In both the Executive Summary and Section 8 of this report, we discuss projections of the minimum actuarially required contribution rates resulting from this projected actuarial loss on the AVA.

Tables 3 and 4 summarize the financial resources of the System on January 1, 2017 on a Market Value basis. Table 3 shows the Market Value of Assets at January 1, 2017 and January 1, 2016. Table 4 shows the changes in Market Value of Assets during the year ending January 1, 2016 and the year ending January 1, 2017.

Tables 3 and 4 are taken directly from data furnished to us by SCERS staff. We have accepted these tables for use in this report without audit, but we have reviewed them for reasonableness and consistency with previous reports.

Actuarial Asset Method

Beginning with the January 1, 2011 actuarial valuation, SCERS adopted five-year asset smoothing. This smoothing process recognizes the asset gain or loss occurring in each year evenly over a five-year period. The following graph shows a historical comparison of the actuarial and market assets used for valuation purposes. Note that prior to 2011 the AVA was equal to the MVA.



* Prior to 2010, actuarial valuations were only performed every second year.

Table 2 Calculation of Actuarial Value of Assets at January 1, 2017
(All dollar amounts in millions)

Five-Year Asset Smoothing										
Year Ended	Market Value at Beginning of Year	Total Contributions	Benefit Payments Plus Admin. Expenses	Expected Investment Return	Market Value of Assets		Asset Gain/(Loss)	Current Phase Out	Deferred Amount	
					Expected*	Actual				
December 31, 2012	\$ 1,753.5	\$ 119.6	\$ 152.4	\$ 134.6	\$ 1,855.3	\$ 1,951.4	\$ 96.1	0%	-	
December 31, 2013	1,951.4	137.4	161.8	150.3	2,077.3	2,216.9	139.6	20%	\$ 27.9	
December 31, 2014	2,216.9	154.0	170.7	165.7	2,365.9	2,322.7	(43.2)	40%	(17.3)	
December 31, 2015	2,322.7	166.9	183.7	173.6	2,479.5	2,313.0	(166.5)	60%	(99.9)	
December 31, 2016	2,313.0	180.2	194.7	172.9	2,471.4	2,488.5	17.1	80%	13.7	
Total Deferred at Jan. 1, 2017:									(75.6)	
Market Value of Assets at Jan. 1, 2017:									2,488.5	
Less Total Deferred at Jan. 1, 2017:									(75.6)	
Actuarial Value of Assets at Jan. 1, 2017:									\$ 2,564.1	

* Expected Market Value of Assets based on the actuarial investment return assumption for the prior year, taking into account actual cash flows during year.

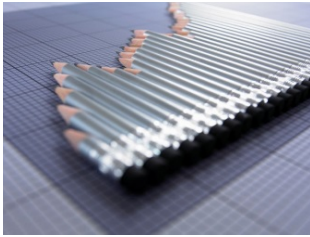
Table 3 Summary of Plan Net Assets (at Market Value)

	January 1, 2017		January 1, 2016	
	Market Value	Distribution	Market Value	Distribution
Assets				
Cash and short-term investments	\$ 342,730,048	13.8%	\$ 195,572,787	8.5%
Securities lending collateral	11,130,677	0.4%	50,952,037	2.2%
Receivables				
Employee	\$ 3,434,870	0.1%	\$ 3,496,137	0.2%
Employer	6,143,927	0.2%	4,787,895	0.2%
Interest and Dividends	3,486,918	0.1%	3,449,203	0.1%
Sales Proceeds Receivable	87,345,080	3.5%	6,175,041	0.3%
Total Receivables	\$ 100,410,795	4.0%	\$ 17,908,276	0.8%
Investments at fair value				
Fixed Income	\$ 539,527,403	21.7%	\$ 599,493,556	25.9%
Equity	1,350,196,766	54.3%	1,126,488,036	48.7%
Real estate	287,996,774	11.6%	270,796,297	11.7%
Alternative	173,578,426	7.0%	114,895,997	5.0%
Total investments	\$ 2,351,299,369	94.5%	\$ 2,111,673,886	91.3%
Total assets	\$ 2,805,570,889	112.7%	\$ 2,376,106,986	102.7%
Liabilities				
Pension & Other payables	\$ 1,370,010	-0.1%	\$ 2,004,636	-0.1%
Securities lending obligation	11,125,376	-0.4%	53,633,431	-2.3%
Investment commitments payable	304,577,339	-12.2%	7,447,756	-0.3%
Total Liabilities	\$ 317,072,725	-12.7%	\$ 63,085,823	-2.7%
Market Value of Net Assets Held in Trust For Pension Benefits				
	\$ 2,488,498,164	100.0%	\$ 2,313,021,163	100.0%

Table 4 Summary of Changes in Plan Net Assets (at Market Value)

	January 1, 2017 Market Value	January 1, 2016 Market Value
Additions		
Contributions		
Employer	\$ 108,454,496	\$ 101,153,403
Employee	71,755,857	65,779,216
Total contributions	\$ 180,210,353	\$ 166,932,619
Investment activities		
Investment income (loss)		
Net change in fair value of investments	\$ 163,299,357	\$ (22,933,464)
Interest	10,569,831	11,377,655
Dividends	24,780,531	27,836,456
Net investment income (loss)	\$ 198,649,719	\$ 16,280,647
Securities lending activities		
Securities lending income	\$ 100,217	\$ 56,694
Borrowing rebates	165,375	674,010
Total securities lending income	\$ 265,592	\$ 730,704
Securities lending management fees	(66,376)	(182,660)
Net income from securities lending	\$ 199,216	\$ 548,044
Investment activity expenses		
Investment management fees	\$ (8,186,323)	\$ (9,096,421)
Investment consultant fees	(295,000)	(295,000)
Investment custodial fees	(426,443)	(353,637)
Total investment activity expenses	\$ (8,907,766)	\$ (9,745,058)
Total additions	\$ 370,151,522	\$ 174,016,252
Deductions		
Benefits	\$ 168,967,298	\$ 159,349,807
Refunds of contributions	16,456,570	16,137,840
Administrative expenses	9,250,653	8,211,137
Total deductions	\$ 194,674,521	\$ 183,698,784
Net Increase/(Decrease)	\$ 175,477,001	\$ (9,682,532)
Net position held in trust for pension benefits		
Beginning of Year	\$ 2,313,021,163	\$ 2,322,703,695
End of Year	\$ 2,488,498,164	\$ 2,313,021,163

Section 4 Actuarial Liabilities



Actuarial Present Value of Future Benefits

In the previous section, an actuarial valuation was related to an inventory process and an analysis was given of the inventory of assets of the System as of the valuation date, January 1, 2017. In this section, the discussion will focus on the commitments of the System, which will be referred to as its actuarial liabilities (or, actuarial value of future benefits).

In an active system, the present value of future actuarial liabilities will almost always exceed the actuarial assets. This is usually expected in all but a fully closed down fund, where no further contributions of any sort are anticipated. This deficiency has to be provided for by future contributions. The funding method for the system sets out a schedule of future contributions that will deal with any deficiency in an orderly fashion. The determination of the level of future contributions needed is discussed in the next section (Section 5) of this report.

Table 5 contains an analysis of the actuarial present value of all future benefits for contributing members, former contributing members, and beneficiaries. The analysis is given by type of benefit.

The actuarial liabilities summarized in Table 5 include the actuarial present value of all future benefits expected to be paid with respect to each member. For an active member, this value includes a measure of both benefits already earned and future benefits to be earned. Thus, for all current members, active and retired, the value extends over benefits earnable and payable for the rest of their lives and, if an optional benefit is chosen, for the lives of their surviving beneficiaries.

The actuarial assumptions used to determine the liabilities are based on the results of the 2014 Investigation of Experience Report. New assumptions were adopted by the Board effective with the January 1, 2014 actuarial valuation. See Appendix A of this report for details.

Actuarial Cost Method

The method used to determine how the actuarial cost for an individual (or for the System as a whole) is allocated to past and future years is referred to as the actuarial cost method. For this valuation, the individual entry age normal cost (EANC) method has been used.

Under this method, the actuarial liabilities discussed above are allocated into two primary calculation components:

1. A normal cost
2. An actuarial accrued liability

Normal Cost and Actuarial Accrued Liability

The normal cost under the EANC method is developed so that benefits are allocated as a level percentage of payroll for each member, from the member's membership date to the member's termination date. One key feature of the EANC method is that normal costs tend to be stable from year to year (assuming no change in assumptions or benefit provisions) because most members' entry age cost percentages do not change materially from year to year, and because the population typically does not change considerably from year to year. The normal cost rates as a percentage of payroll for the current and prior valuation are shown by benefit type in Table 6. These normal cost contribution rates are intended to be contributed in each year in order to fund the ongoing cost of benefit accruals.

The annual normal cost rate may be considered the ongoing cost of benefit accruals for any given plan year. When the present value of all future normal costs is subtracted from the present value of total benefits, the result is the actuarial accrued liability (AAL). This can be thought of as the current value of all past normal costs, or the amount that would be in the fund if all prior actuarial assumptions had been exactly met. The AAL represents the portion of the present value of total benefits that the cost method allocates to past service.

To the extent that this AAL exceeds plan assets, an Unfunded Actuarial Accrued Liability (UAAL) exists. Table 7 calculates the UAAL, if any, for the current and prior valuations. Note that currently, a UAAL exists for SCERS; the payoff of this UAAL is discussed in more detail in Section 5 (City Contributions) of this report.

Table 5 Actuarial Present Value of Future Benefits (PVFB)

(All dollar amounts in millions)

	January 1, 2017	January 1, 2016
A. Active Members		
Service Retirement	\$ 2,550.0	\$ 2,444.9
Vested Retirement	69.9	65.6
Disability Retirement	7.7	7.3
Survivor Benefits	23.3	22.7
Refund of Member Contributions	<u>46.6</u>	<u>42.5</u>
Total	\$ 2,697.5	\$ 2,583.0
B. Inactive Members and Annuitants		
Service Retirement	\$ 1,670.0	\$ 1,585.3
Disability Retirement	10.1	10.5
Beneficiaries	103.5	98.4
Inactive Members	<u>191.5</u>	<u>180.9</u>
Total	\$ 1,975.1	\$ 1,875.1
C. Grand Total PVFB	\$ 4,672.6	\$ 4,458.1

Table 6 Normal Cost Contribution Rates as Percentages of Salary

	January 1, 2017	January 1, 2016
Service Retirement	12.59 %	12.55 %
Vested Retirement	1.21	1.22
Disability Retirement	0.07	0.07
Survivor Benefits	0.17	0.17
Refund of Member Contributions	1.19	1.19
Administrative Expenses	<u>0.60</u>	<u>0.60</u>
Total	15.83 %	15.80 %

Table 7 Unfunded Actuarial Accrued Liability (UAAL)

(All dollar amounts in millions)

	January 1, 2017	January 1, 2016
A. Actuarial present value of all future benefits for present and former members and their survivors (Table 3)	\$ 4,672.6	\$ 4,458.1
B. Less actuarial present value of total future normal costs for present members	906.2	853.0
C. Actuarial accrued liability* [A - B]	\$ 3,766.4	\$ 3,605.1
D. Less actuarial value of assets available for benefits (Table 2)	<u>2,564.1</u>	<u>2,397.1</u>
E. Unfunded actuarial accrued liability (Funding Excess, if negative) [C - D]	\$ 1,202.3	\$ 1,208.0
F. Funding Ratio [D ÷ C]	68.1%	66.5%

* The actuarial accrued liability as of January 1, 2018 is projected to be \$3,961.6 million.

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Section 5 City Contributions



As shown in Table 7 in the previous section of this report, the AAL exceeds the current Actuarial Value of Assets. In other words, as of the January 1, 2017 valuation, a UAAL exists for SCERS.

Because a UAAL exists, the total calculated minimum actuarially required contribution rate will consist of two components:

1. The normal cost contribution rate as of January 1, 2017
2. An amortization payment intended to pay off the UAAL in accordance with the SCERS funding policy

Funding

The current SCERS funding policy was updated by a Seattle City Council resolution in August 2013. The funding policy specifies that the UAAL will be amortized as a level percentage of payroll over a closed 30-year period as of the January 1, 2013 actuarial valuation. This means that, for the January 1, 2017 valuation, the amortization contribution rate must pay off the current UAAL over a 26-year period.

Actuarial Gains and Losses

When experience is different from actuarial expectation, an actuarial gain or loss occurs. Ongoing actuarial gains and losses decrease and increase the UAAL. Section 7 of this report illustrates the historical actuarial gains and losses on the UAAL by source.

Amortization of UAAL

Table 8 details the components of the minimum actuarially required contribution rate of 25.00% by breaking it into the necessary funding components: normal cost and amortization of UAAL. It then illustrates the split between member and employer contribution rates, assuming that member contributions are allocated entirely toward paying the ongoing normal cost of benefits.

As of the January 1, 2017 valuation, the minimum actuarially required contribution rate for the employer has decreased to 14.97% beginning January 1, 2018. This is mainly due to the less than expected increase in average salaries.

The total contribution rate of 25.32% being paid in 2017 was calculated in order to amortize the January 1, 2016 UAAL over a 27-year period; however, this rate is not projected to perfectly amortize the January 1, 2017 UAAL over 26 years due to gains that have occurred during 2016. Table 9 details the expected amortization of the UAAL over the 26-year closed period beginning January 1, 2017.

**Amortization of UAAL
(continued)**

The total contribution rate can be immediately (i.e., as of the beginning of the next calendar year) decreased from 25.32% of pay to 25.00% of pay to be projected to amortize the UAAL over the scheduled 26 years from January 1, 2017. If the contribution rate is not decreased, the UAAL would be projected to be amortized over a shorter period than 26 years. Because this figure is based on an Actuarial Value of Assets that is currently deferring a net loss, this 25.00% is projected to increase over the next several years (after next year) if no other actuarial asset gains or losses were to occur.

In Section 8 of this report, we have included a five-year projection of the actuarial required contribution, including optimistic and pessimistic investment return scenarios.

Table 8 Contribution Rates as Percentages of Salary

	Actuarial Required Contribution Beginning	
	January 1, 2017	January 1, 2016
A. Total normal cost rate	15.83 %	15.80 %
B. UAAL amortization rate	<u>9.17</u>	<u>9.52</u>
C. Actuarial required contribution rate	25.00 %	25.32 %
D. Member contribution rate	<u>10.03</u>	<u>10.03</u>
E. Allocation of employer contribution rate*		
Normal cost	5.80 %	5.77 %
Amortization payment	<u>9.17</u>	<u>9.52</u>
Total employer contribution rate	14.97 %	15.29 %

* If member contributions are all allocated to paying normal cost.

Table 9 Amortization of Unfunded Actuarial Accrued Liability (UAAL)*
(All dollar amounts in millions)

Year	Payroll	Total Contribution Rate	Normal Cost Rate	UAAL Rate	UAAL			Ending Balance
					Beginning Balance	Amortization Payment	Interest	
2017	\$ 726	25.32%	15.83%	9.49%	\$ 1,202.3	\$ 68.9	\$ 87.6	\$ 1,221.1
2018	758	25.00%	15.83%	9.17%	1,221.1	69.5	89.0	1,240.6
2019	792	25.00%	15.83%	9.17%	1,240.6	72.6	90.4	1,258.4
2020	828	25.00%	15.83%	9.17%	1,258.4	75.9	91.6	1,274.0
2021	865	25.00%	15.83%	9.17%	1,274.0	79.3	92.6	1,287.3
2022	904	25.00%	15.83%	9.17%	1,287.3	82.9	93.5	1,298.0
2023	945	25.00%	15.83%	9.17%	1,298.0	86.6	94.2	1,305.5
2024	988	25.00%	15.83%	9.17%	1,305.5	90.6	94.6	1,309.4
2025	1033	25.00%	15.83%	9.17%	1,309.4	94.7	94.7	1,309.5
2026	1080	25.00%	15.83%	9.17%	1,309.5	99.0	94.6	1,305.0
2027	1129	25.00%	15.83%	9.17%	1,305.0	103.5	94.1	1,295.5
2028	1180	25.00%	15.83%	9.17%	1,295.5	108.2	93.2	1,280.5
2029	1233	25.00%	15.83%	9.17%	1,280.5	113.1	91.9	1,259.4
2030	1289	25.00%	15.83%	9.17%	1,259.4	118.2	90.1	1,231.3
2031	1347	25.00%	15.83%	9.17%	1,231.3	123.5	87.8	1,195.6
2032	1408	25.00%	15.83%	9.17%	1,195.6	129.1	84.9	1,151.4
2033	1472	25.00%	15.83%	9.17%	1,151.4	135.0	81.4	1,097.8
2034	1539	25.00%	15.83%	9.17%	1,097.8	141.1	77.1	1,033.8
2035	1609	25.00%	15.83%	9.17%	1,033.8	147.5	72.1	958.4
2036	1682	25.00%	15.83%	9.17%	958.4	154.2	66.2	870.4
2037	1758	25.00%	15.83%	9.17%	870.4	161.2	59.3	768.5
2038	1837	25.00%	15.83%	9.17%	768.5	168.4	51.4	651.5
2039	1920	25.00%	15.83%	9.17%	651.5	176.0	42.4	517.9
2040	2007	25.00%	15.83%	9.17%	517.9	184.0	32.1	365.9
2041	2098	25.00%	15.83%	9.17%	365.9	192.4	20.4	193.9
2042	2193	25.00%	15.83%	9.17%	193.9	201.1	7.1	(0.0)

* Amortization shown does not include the projected impact of currently deferred asset gains and losses.

Section 6 Additional Actuarial Information



The schedule of funding progress is shown in Table 10 and compares assets and liabilities over the years. Primarily due to the poor investment returns of 2000 through 2003, as well as the extreme market downturn of 2008, the Plan is not fully funded. Another material factor in the current funding shortfall is the benefit enhancements triggered in 2007 (i.e., 65% Floor COLA and the 1.5% COLA for all retirees).

Exhibit 11 compares the Actuarial Value of Valuation Assets to the types of Actuarial Accrued Liabilities, applying them first to Active Member contributions, then to retirees and beneficiaries, and then the remaining amount to the Active Members benefits. This is referred to as the Solvency Test. Although not required under GASB, this test is part of the CAFR guidelines specified by the Government Finance Officers Association (GFOA).

Table 10 Schedule of Funding Progress

(All dollar amounts in millions)

Actuarial Valuation Date January 1	Actuarial Value of Assets	Actuarial Accrued Liabilities (AAL)	Unfunded Actuarial Accrued Liabilities (UAAL)	Funded Ratio	Covered Payroll*	UAAL as a Percentage of Covered Payroll
1986	\$ 395.7	\$ 561.3	\$ 165.6	70.5%	\$ 182.0	91.0%
1988	445.4	595.3	149.9	74.8	199.0	75.3
1990	558.8	737.9	179.1	75.7	212.3	84.4
1992	660.0	810.5	150.5	81.4	239.4	62.9
1994	781.8	926.2	144.4	84.4	291.8	49.5
1996	980.2	1,019.7	39.5	96.1	310.6	12.7
1997	1,094.8	1,087.3	(7.5)	100.7	316.9	(2.4)
1998 **	1,224.6	1,266.7	42.1	96.7	341.5	12.3
1999	1,375.0	1,326.6	(48.4)	103.6	370.4	(13.1)
2000	1,582.7	1,403.1	(179.6)	112.8	383.6	(46.5)
2002	1,383.7	1,581.4	197.7	87.5	405.1	48.8
2004	1,527.5	1,778.9	251.4	85.9	424.7	59.2
2006	1,791.8	2,017.5	225.8	88.8	447.0	50.5
2008	2,119.4	2,294.6	175.2	92.4	501.9	34.9
2010	1,645.3	2,653.8	1,008.5	62.0	580.9	173.6
2011	2,013.7	2,709.0	695.4	74.3	563.2	123.5
2012	1,954.3	2,859.3	905.0	68.3	557.0	162.5
2013	1,920.1	3,025.3	1,105.2	63.5	567.8	194.6
2014	2,094.3	3,260.1	1,165.8	64.2	597.9	195.0
2015	2,266.7	3,432.6	1,165.9	66.0	630.9	184.8
2016	2,397.1	3,605.1	1,208.0	66.5	641.7	188.3
2017	2,564.1	3,766.4	1,202.3	68.1	708.6	169.7

* Covered Payroll includes compensation paid to all active employees on which contributions are calculated. Covered Payroll differs from the Active Member Valuation Payroll shown in Table 1, which is an annualized compensation of only those members who were active on the actuarial valuation date.

** Reflects increased COLA benefits adopted by the City Council after the valuation was completed.

Table 11 Solvency Test

(All dollar amounts in millions)

Actuarial Valuation Date January 1	Actuarial Value of Valuation Assets	Actuarial Accrued Liabilities for				Portion of Actuarial Accrued Liabilities Covered by Assets			
		(A)	(B)	(C)	(D)	(A)	(B)	(C)	(D)
		Active Member Contributions	Inactives, Retirees and Beneficiaries	Active Members (Employer Financed Portion)	Total				
1986	\$ 395.7	\$ 110.7	\$ 263.1	\$ 187.5	\$ 561.3	100.0%	100.0%	11.7%	70.5%
1988	445.4	136.0	303.6	155.7	595.3	100.0	100.0	3.7	74.8
1990	558.8	164.0	332.8	241.1	737.9	100.0	100.0	25.7	75.7
1992	660.0	202.6	357.9	250.0	810.5	100.0	100.0	39.8	81.4
1994	781.8	248.4	383.1	294.7	926.2	100.0	100.0	51.0	84.4
1996	980.2	294.1	409.3	316.3	1,019.7	100.0	100.0	87.5	96.1
1997	1,094.8	313.1	449.8	324.4	1,087.3	100.0	100.0	100.0	100.7
1998 *	1,224.6	337.3	551.8	377.6	1,266.7	100.0	100.0	88.9	96.7
1999	1,375.0	358.4	577.6	390.6	1,326.6	100.0	100.0	100.0	103.6
2000	1,582.7	385.2	599.4	418.5	1,403.1	100.0	100.0	100.0	112.8
2002	1,383.7	434.3	675.6	471.5	1,581.4	100.0	100.0	58.1	87.5
2004	1,527.5	482.5	758.9	537.5	1,778.9	100.0	100.0	53.2	85.9
2006	1,791.8	539.7	902.2	575.6	2,017.5	100.0	100.0	60.8	88.8
2008	2,119.4	590.1	1,084.9	619.6	2,294.6	100.0	100.0	71.7	92.4
2010	1,645.3	684.7	1,176.4	792.7	2,653.8	100.0	81.7	0.0	62.0
2011	2,013.7	683.7	1,290.9	734.4	2,709.0	100.0	100.0	5.3	74.3
2012	1,954.3	730.9	1,393.7	734.7	2,859.3	100.0	87.8	0.0	68.3
2013	1,920.1	757.3	1,513.4	754.6	3,025.3	100.0	76.8	0.0	63.5
2014	2,094.3	792.4	1,657.0	810.7	3,260.1	100.0	78.6	0.0	64.2
2015	2,266.7	829.7	1,753.5	849.4	3,432.6	100.0	82.0	0.0	66.0
2016	2,397.1	851.2	1,875.1	878.8	3,605.1	100.0	82.4	0.0	66.5
2017	2,564.1	888.1	1,975.1	903.2	3,766.4	100.0	84.9	0.0	68.1

* Reflects increased COLA benefits adopted by the City Council after the valuation was completed.

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Section 7 Actuarial Gains or Losses



An analysis of actuarial gains or losses was performed in conjunction with the January 1, 2015, January 1, 2016, and January 1, 2017 actuarial valuations.

The results of our analysis of the financial experience of the System in the three most recent actuarial valuations are presented in Table 12. Each gain or loss shown represents our estimate of how much the given type of experience caused the UAAL to change in the period since the previous actuarial valuation.

Gains and losses due to demographic sources are approximate. Demographic experience is analyzed in greater detail in our periodic assumption studies.

Table 12 Analysis of Actuarial Gains or Losses*

(All dollar amounts in millions)

	Gain/(Loss) For Period		
	2016	2015	2014
Investment Income			
Investment income on AVA was greater (less) than assumed.	\$ 2.3	\$ (22.1)	\$ 32.6
Pay Increases			
Pay increases were less (greater) than expected.	14.5	(7.3)	(3.9)
Age and Service Retirements			
Members retired at older (younger) ages or with less (greater) final average pay than expected.	20.9	17.2	13.0
Disability Retirements			
Disability claims were less (greater) than expected.	(0.1)	(0.1)	(0.1)
Death-in-Service Benefits			
Survivor claims were less (greater) than expected.	-	-	-
Withdrawal from Employment			
More (less) reserves were released by withdrawals than expected.	(18.9)	(24.0)	(25.4)
Death after Retirement			
Retirees died younger (lived longer) than expected.	<u>(1.0)</u>	<u>9.0</u>	<u>5.6</u>
Total Gain or (Loss) during Period from Financial Experience	\$ 17.7	\$ (27.3)	\$ 21.7
Non-Recurring Items:			
Changes in actuarial assumptions and plan amendments caused a gain (loss).	-	-	-
Data revisions	-	-	-
Change in actuarial asset valuation method caused a gain (loss).	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Composite Gain (Loss) During Period	\$ 17.7	\$ (27.3)	\$ 21.7

* Effects related to losses are shown in parentheses. Numerical results are expressed as a decrease (increase) in the UAAL.

Section 8 Contribution Rate Projections and Increases



This section of the January 1, 2017 actuarial valuation is devoted to a detailed discussion of the contribution rates currently needed, and projected to be needed, in order to effectively fund the System.

This section illustrates two key points:

1. As mentioned throughout this report, the current AVA is deferring a net loss. As a result, if no actuarial asset gains or losses were to occur over the next several years (i.e., the market return equals 7.50%), the minimum actuarially required contribution rate would be projected to increase slightly (and the Funding Ratio would be projected to decrease) as the remaining deferred losses are fully phased in.
2. Currently, the City is expected to contribute a total rate of 25.00% of payroll (employer and member) beginning January 1, 2018, on the basis of the current valuation report. The actual contribution rate needed will vary in the future. We have shown projections to roughly quantify the potential impact of good and bad experience.

Projection of Minimum Actuarially Required Contribution Rate

We have performed a five-year projection of the minimum actuarially required contribution rate under three different scenarios:

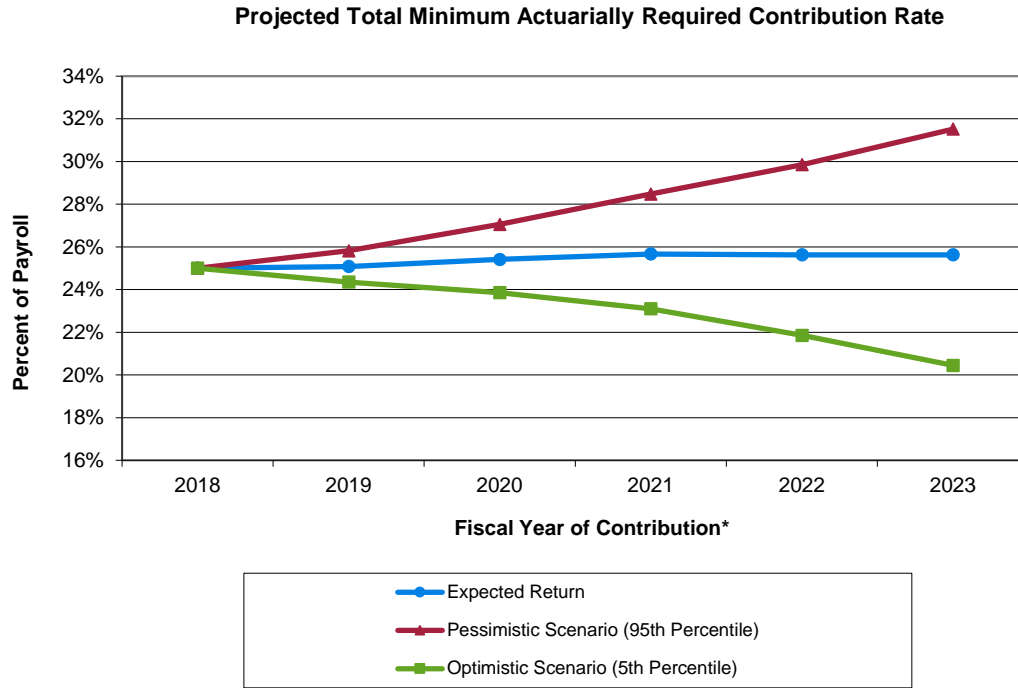
1. Assuming that the investment return assumption of 7.50% is met in each future year.
2. Assuming that the assets return at the 5th percentile.
3. Assuming that the assets return at the 95th percentile.

The result is effectively a 90% confidence interval (based on asset returns) of the projected contribution rates in these years. Note that in each scenario, all other actuarial assumptions are assumed to be met.

The projections assume the City contributes the minimum actuarially required contribution rate each year in the future. This rate is based on a 26-year closed amortization period as of January 1, 2017 and includes a 0.50% population growth assumption. Future returns at the 5th and 95th percentile are based on Milliman's capital market assumptions and SCERS's target asset allocation as of January 1, 2017.

Table 13 provides the results of these projections.

Table 13 Projected Total Contribution Rates



Projected Minimum Actuarially Required Total Contribution Rate

Contribution Year*	If Asset Return at 95th Percentile	Assuming 7.50% Future Returns	If Asset Return at 5th Percentile
2018	25.00%	25.00%	25.00%
2019	25.82%	25.08%	24.35%
2020	27.05%	25.41%	23.86%
2021	28.47%	25.67%	23.10%
2022	29.85%	25.63%	21.86%
2023	31.52%	25.63%	20.45%

* Contribution year lags calculation year by one year. For example: Contribution Year 2018 is based on the 2017 valuation results, amortized over 26 years beginning in 2017, if the increase takes place in 2018.

Assumed Returns for Projection

The projection above uses the 5th and 95th percentile returns based on SCERS' target asset allocation and Milliman's January 1, 2017 capital market assumptions. These percentile returns vary by the number of years of return; for example, the Contribution Year 2018 number assumes one year of return at the one-year 5th or 95th percentile rate; the Contribution Year 2019 number assumes two years of return at the two-year 5th or 95th percentile rate.

The percentile rates assumed for this analysis are shown in the table below:

	Compounded Average Return for Period	
	Percentile	
	95 th	5 th
<i>1-Year Period</i>	-11.3%	26.0%
<i>2-Year Period</i>	-6.6%	19.7%
<i>3-Year Period</i>	-4.4%	17.0%
<i>4-Year Period</i>	-3.1%	15.4%
<i>5-Year Period</i>	-2.2%	14.4%

Contribution Decreases

As of January 1, 2017, a minimum actuarially required contribution rate of 25.00% is projected to be needed in order to amortize the UAAL over a 26-year period beginning January 1, 2017.

This represents a decrease of 0.32% of pay compared with the current 25.32% of pay being contributed (by the employer and members combined) based on a target of a 100% Funding Ratio by January 1, 2043. Note that due to the future recognition of deferred asset losses, the contribution rate is expected to increase in the next valuation, if all assumptions are met.

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Section 9 Projection of Benefit Payments and Contribution Dollars



Projection of Benefit Payments and Contribution Dollars

This section of the January 1, 2017 actuarial valuation illustrates projected SCERS benefit payments and dollar contributions over a 10-year period following the actuarial valuation.

These projections assume all actuarial assumptions, including 7.50% investment returns (on a market basis) in each future year, are met in the future.

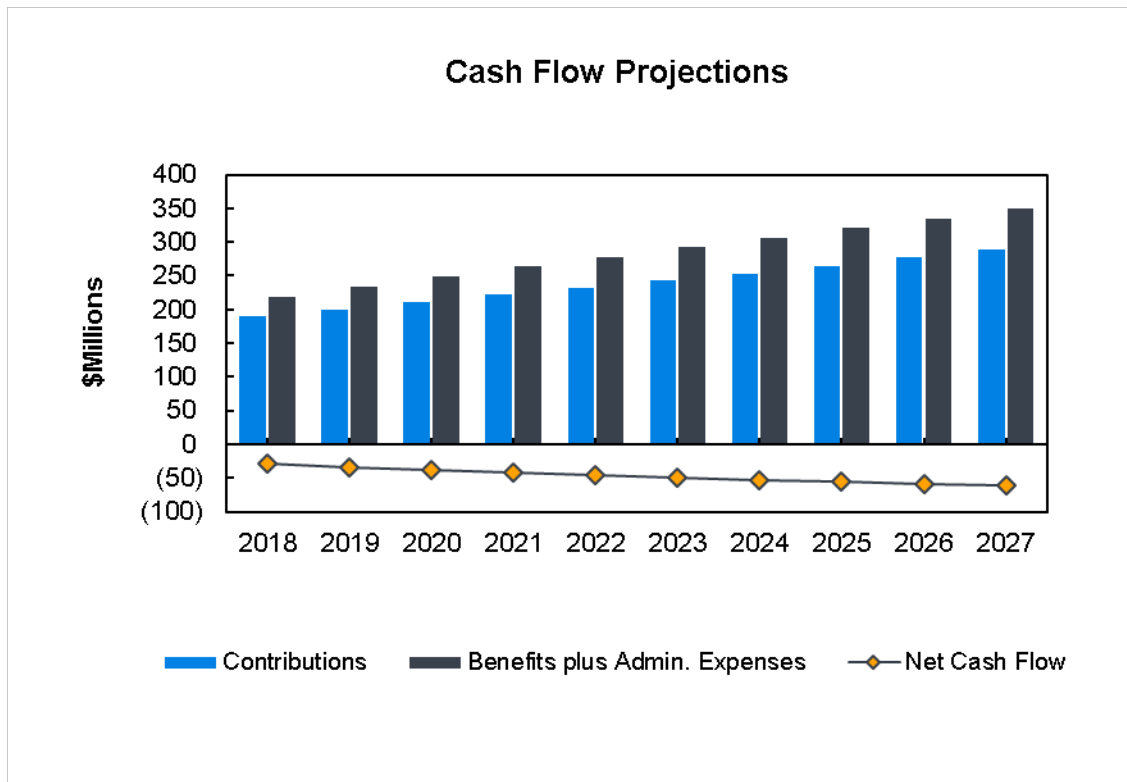
The projection of contribution dollars makes the following three additional key assumptions:

1. Valuation payroll is assumed to grow with both wage inflation of 4.00% and annual population growth of 0.50% (per current SCERS assumptions).
2. The City is assumed to make the minimum actuarially required contribution rate calculated in each projection year.
3. Future recognition of currently deferred asset gains or losses is reflected in the projection.

Table 14 shows the results of these projections.

Table 14 10-Year Projection of Benefit Payments and Contributions*

Year	Projected Payroll	Projected Admin. Expenses	Projected Benefit Payments	Projected Total Cash Outflow	Projected Total Contributions	Projected Net Cash Flow
2018	\$ 758.4	\$ 4.6	\$ 213.4	\$ 218.0	\$ 189.6	\$ (28.4)
2019	792.7	4.8	228.9	233.7	198.8	(34.9)
2020	828.5	5.0	244.1	249.1	210.5	(38.5)
2021	866.0	5.2	258.4	263.6	222.3	(41.3)
2022	905.1	5.4	272.4	277.8	232.0	(45.9)
2023	946.0	5.7	286.5	292.2	242.5	(49.7)
2024	988.8	5.9	300.7	306.6	253.4	(53.2)
2025	1,033.5	6.2	314.6	320.8	264.9	(55.9)
2026	1,080.2	6.5	328.6	335.1	276.8	(58.2)
2027	1,129.0	6.8	342.6	349.4	289.4	(60.0)



* Benefit payments do not include administrative expenses. Contributions include employer and member contributions.

Appendix A Actuarial Procedures and Assumptions



This section of the report describes the actuarial procedures and assumptions used in this valuation. The assumptions used in this valuation were adopted by the SCERS Board at its May 2014 meeting. They are based on Milliman's Investigation of Experience for the period ending December 31, 2013. Further discussion and the rationale for the assumptions are shown in that report.

The actuarial assumptions used in the valuation are intended to estimate the future experience of the members of the System and of the System itself in areas that affect the projected benefit flow and anticipated investment earnings. Any variations in future experience from that expected from these assumptions will result in corresponding changes in the estimated costs of the System's benefits. Table A-1 summarizes the actuarial assumptions.

Table A-2 presents expected annual salary increases for various years of service. Tables A-3 through A-6 show rates of decrement for service retirement, disability, mortality, and other terminations of employment. Table A-7 shows probabilities of refund upon termination.

Actuarial Cost Method

The actuarial valuation was prepared using the entry age actuarial cost method. Under this method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated as a level percentage of the individual's projected compensation between entry age and assumed exit. The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the sum of (a) the actuarial value of the assets, and (b) the actuarial present value of future normal costs is called the unfunded actuarial accrued liability or UAAL. The UAAL is amortized as a level percentage of the projected salaries of present and future members of the System.

Records and Data

The data used in the valuation consist of financial information; records of age, sex, service, salary, contribution rates and account balances of contributing members; and records of age, sex, and amount of benefit for retired members and beneficiaries. All of the data were supplied by the System and are accepted for valuation purposes without audit.

Replacement of Terminated Members

The ages at entry and distribution by sex of future members are assumed to average the same as those of the present members they replace. If the number of active members should increase, it is further assumed that the average entry age of the larger group will be the same, from an actuarial standpoint, as that of the present group. Under these assumptions, the normal cost rates for active members will not vary with the termination of present members.

City Contributions

The City contribution rate is determined as of the prior year's valuation such that the combined member and City contribution rate is sufficient to amortize the UAAL over a closed 30-year period beginning January 1, 2013. The amortization payment is based on a level percent of pay.

Administrative Expense	The annual contribution assumed to be necessary to meet general administrative expenses of the system, excluding investment expenses, is 0.60% of members' salaries. This figure is included in the calculation of the normal cost rate.
Valuation of Assets	The assets are valued using a five-year smoothing method based on the difference between the expected market value and the actual market value of the assets in each year. The expected market value is the prior year's market value increased with the net increase in the cash flow, all increased with interest during the past fiscal year at the expected investment return rate assumption.
Investment Earnings	The annual rate of investment earnings of the assets of the System is assumed to be 7.50%. This rate is compounded annually and is net of investment expenses.
Postretirement Benefit Increases	<p>Postretirement benefit increases include:</p> <ul style="list-style-type: none">▪ Automatic 1.5% Annual COLA – This benefit applies to all members.▪ 65% Restoration of Purchasing Power (ROPP) – The member's benefit is the greater of 65% of the annual initial benefit adjusted for CPI or their applicable benefit. This minimum benefit is available to all retirees and beneficiaries. The financial impact of the ROPP benefit is valued assuming an annual price inflation rate of 3.25%. <p>Additional contingent COLA increases that were adopted in 2001, but not effective until the System reaches at least a 100% funding ratio, are not included in the valuation results.</p>
Valuation Services	<p>The projected salary for the valuation year is equal to the member's hourly pay rate multiplied by 2088 with the following adjustments:</p> <ul style="list-style-type: none">▪ Annualized pay for members who entered in year preceding valuation year.▪ Multiplied hourly pay rate by minimum of 1,040 and actual hours worked in prior year for part-time employees.
Future Salaries	Table A-2 illustrates the rates of future (after the valuation year) salary increases assumed for the purpose of the valuation. In addition to increases in salary due to promotions and longevity, this scale includes an assumed 4.00% per annum rate of increase in the general wage level of the membership.
Service Retirement	Table A-3 shows the annual assumed rates of retirement among members eligible for service retirement or reduced retirement. Separate rates are also used during the first year a member is eligible for service retirement.
Disability	The rates of disability used in this valuation are illustrated in Table A-4. It is assumed that one-third of all disabilities are duty related and two-thirds occur while off duty.
Mortality	The mortality rates used in this valuation are illustrated in Table A-5. A written description of each table used is included in Table A-1.

Other Terminations of Employment	The rates of assumed future withdrawal from active service for reasons other than death, disability, or retirement are shown for representative ages in Table A-6. Note that this assumption only applies to members who terminate and are not yet eligible for retirement.
Probability of Refund	<p>Terminating members may forfeit a vested right to a deferred benefit if they elect a refund of their accumulated contributions. Table A-7 gives the assumed probability, at selected ages, that a terminating member will elect to receive a refund of his accumulated contributions instead of a deferred benefit.</p> <p>If a member terminates with more than 20 years of service, there is assumed to be a 20% probability that the member will elect a refund.</p> <p>Note that the probability of refund assumption only applies to members who terminate with a vested benefit and are not yet eligible for retirement.</p>
Interest on Member Contributions	Interest on member contributions made prior to January 1, 2012 is assumed to accrue at a rate of 5.75% per annum, compounded annually. Interest on member contributions made on or after January 1, 2012 is assumed to accrue at 4.75%.
Portability	The cost of portability with other public retirement systems is not included in this valuation.
Probability of Marriage	We assumed 60% of the active members are married or have a registered domestic partner.
Commencement for Terminated Vested Members	Vested members who terminate but elect to leave their contributions in the System are assumed to commence receiving benefits at age 62.

Table A-1 Summary of Valuation Assumptions

January 1, 2017

I. Economic assumptions		
A. Price inflation		3.25%
B. General wage increases		4.00
C. Investment return		7.50
D. Increase in membership		0.50
E. Interest on member accounts		5.75/4.75*
II. Demographic assumptions		
A. Salary increases due to promotion and longevity		Table A-2
B. Retirement		Table A-3
C. Disability		Table A-4
D. Mortality** among contributing members		Table A-5
Men	RP 2000 Employees Table for Males, with ages set back six years.	
Women	RP 2000 Employees Table for Females, with ages set back six years.	
E. Mortality** among service retired members and beneficiaries		Table A-5
Men	RP2000 Combined Healthy Males, with ages set back two years.	
Women	RP2000 Combined Healthy Females, with ages set back one year.	
F. Mortality** among disabled members		Table A-5
Men	RP2000 Disabled Males, with ages set back four years.	
Women	RP2000 Disabled Females, with ages set back four years.	
G. Other terminations of employment		Table A-6
H. Probabilities of vesting on termination		Table A-7

* Member contributions made prior to January 1, 2012 are assumed to accrue interest at 5.75%; contributions made on or after that date are assumed to accrue at 4.75%.

** All mortality tables are generational using Projection Scale AA to reflect expected future mortality improvement.

Table A-2 Future Salaries

Annual Rate of Increase		
Years of Service	Promotion and Longevity	Total*
0 to 1	4.50%	8.68%
1 to 2	3.50	7.64
2 to 3	2.75	6.86
3 to 4	2.00	6.08
4 to 5	1.50	5.56
9 to 10	0.80	4.83
14 to 15	0.45	4.47
19 to 20	0.29	4.30
24 to 25	0.25	4.26
29 to 30	0.25	4.26
35 or more	0.25	4.26

* Total rate shown reflects compounded effect of merit increase and assumed wage growth of 4.00%.

Table A-3 Retirement

Age	Annual Probability					
	Men			Women		
	Eligible for Full Benefits			Eligible for Full Benefits		
	Eligible for Reduced Benefits	Less than 30 years of service	30 years or more of service	Eligible for Reduced Benefits	Less than 30 years of service	30 years or more of service
Less than 50	0.0%	8.0%	8.0%	0.0%	10.0%	10.0%
50	5.0	8.0	10.0	5.0	10.0	10.0
51	5.0	8.0	10.0	5.0	10.0	10.0
52	5.0	8.0	12.0	5.0	10.0	12.0
53	3.0	8.0	12.0	3.0	10.0	12.0
54	3.0	8.0	12.0	3.0	10.0	12.0
55	6.0	8.0	12.0	6.0	10.0	12.0
56	5.0	8.0	12.0	5.0	10.0	12.0
57	5.0	8.0	12.0	5.0	13.0	12.0
58	5.0	8.0	12.0	5.0	13.0	12.0
59	5.0	8.0	15.0	8.0	13.0	15.0
60	6.0	14.0	15.0	8.0	15.0	15.0
61	9.0	12.0	15.0	12.0	13.0	15.0
62	15.0	20.0	30.0	15.0	20.0	26.5
63	12.0	18.0	22.0	12.0	18.0	20.0
64	9.5	18.0	22.0	13.0	18.0	20.0
65		40.0	32.0		40.0	30.0
66		40.0	32.0		40.0	38.0
67		40.0	32.0		40.0	38.0
68		30.0	26.0		33.0	32.0
69		30.0	26.0		33.0	32.0
70		*	*		*	*

* Immediate retirement is assumed for every person age 70 or over.

Table A-4 Disability*

Age	Annual Rates	
	Men	Women
20	.00%	.00%
25	.00	.00
30	.02	.02
35	.02	.02
40	.03	.03
45	.03	.03
50	.04	.04
55	.04	.04
60	.04	.04
65	.00	.00

* It is assumed that one-third of all disabilities are duty related and two-thirds are non-duty related.

Table A-5 Mortality

Age	Annual Probability*					
	Contributing Members		Members Retired for Service and Beneficiaries of Members		Disabled Members	
	Men	Women	Men	Women	Men	Women
22	0.03 %	0.02 %	0.03 %	0.02 %	2.26 %	0.74 %
27	0.04	0.02	0.04	0.02	2.26	0.74
32	0.04	0.02	0.04	0.03	2.26	0.74
37	0.05	0.03	0.08	0.05	2.26	0.74
42	0.08	0.05	0.11	0.08	2.26	0.74
47	0.11	0.08	0.15	0.12	2.26	0.74
52	0.16	0.12	0.21	0.19	2.64	0.98
57	0.23	0.18	0.36	0.31	3.29	1.45
62	0.33	0.28	0.67	0.58	3.93	1.97
67	0.54	0.43	1.27	1.10	4.66	2.53
72	N/A	N/A	2.22	1.86	5.69	3.32
77	N/A	N/A	3.78	3.10	7.33	4.58
82	N/A	N/A	6.44	5.08	9.76	6.35
87	N/A	N/A	11.08	8.64	12.83	8.78
92	N/A	N/A	18.34	14.46	16.22	12.25

*The mortality rates shown above are generationally projected on an individual basis using Projection Scale AA for the valuation.

Table A-6 Other Terminations of Employment Among Members Not Eligible to Retire

Years of Service	Annual Rates for Men	Annual Rates for Women
0 to 1	6.5%	8.5%
1 to 2	5.8	8.3
2 to 3	5.3	8.0
3 to 4	4.8	7.8
4 to 5	4.4	7.5
5 to 6	4.1	7.0
6 to 7	3.8	6.3
7 to 8	3.5	5.7
8 to 9	3.2	5.1
9 to 10	2.9	4.5
10 to 11	2.6	4.1
11 to 12	2.3	3.8
12 to 13	2.1	3.4
13 to 14	1.9	3.1
14 to 15	1.7	2.7
15 to 16	1.5	2.4
16 to 17	1.4	2.0
17 to 18	1.2	1.7
18 to 19	1.1	1.4
19 to 20	1.0	1.2
20 to 21	0.9	1.1
21 to 22	0.8	1.0
22 to 23	0.8	0.9
23 to 24	0.7	0.8
24 to 25	0.7	0.8
25 to 26	0.6	0.7
26 to 27	0.6	0.7
27 to 28	0.5	0.6
28 to 29	0.5	0.6
29 to 30	0.4	0.5
30 or more	0.5	0.5

Table A-7 Probability of Refund

Age	Probabilities of Refund upon Termination*
25	70.0%
30	65.0
35	55.0
40	48.0
45	43.0
50	38.0
55	36.0
60	40.0

** If service is 20 or more years at termination,
probability of refund is equal to 20%.*

Appendix B Provisions of Governing Law



All actuarial calculations are based upon our understanding of the provisions governing the Seattle City Employees' Retirement System, Chapter 4.36 of the Seattle City Code. The benefit and contribution provisions are summarized briefly below, along with corresponding references to the City code. This summary encompasses the major provisions of the System; it does not attempt to cover all of the detailed provisions. We have not valued any benefit changes applicable to members hired after December 31, 2016.

Effective Date	The effective date of the retirement system was July 1, 1929. (Section 4.36.080)
Members' Contribution Rate	The members' contribution rate is 10.03% of salary as of January, 2012. Certain members who were contributing at a lower rate on June 23, 1972 continue to contribute at a lower rate. (Section 4.36.540A)
City Contribution Rate	The City contribution rate is the amount that is actuarially determined to be necessary to fund that portion of the retirement allowances not covered by the members' contributions. This amount shall be at least the members' contribution rate. (Section 4.36.545)
Final Compensation	Final compensation is based on highest average compensation (excluding overtime) during any consecutive 24 months. (Sections 4.36.040 and 4.36.050)
Service Retirement	<p><i>Eligibility</i></p> <p>30 years of service;</p> <p>Age 52 and 20 years of service;</p> <p>Age 57 and 10 years of service; or</p> <p>Age 62 and 5 years of service.</p> <p><i>Normal Form</i></p> <p>Straight life benefit.</p> <p><i>Optional Forms</i></p> <p>Actuarial equivalent according to the mortality and interest basis adopted by the Retirement Board for such purposes.</p>

**Service Retirement
(continued)**

Amount of Allowance

The total monthly allowance is generally 2% times final compensation times total years of creditable service.

However, if the member does not qualify in one of the following ways, the 2% factor is reduced by 0.1% for each year that retirement precedes the earliest date the member would be:

- (a) Any age with 30 years of service.
- (b) Age 51-59, providing the member's age and years of service total 80 or more.
- (c) Age 60 or older with 20 years of service.
- (d) Age 65 or older with five years of service.

The reduction is somewhat less than 0.1% for members with less than 20 years of service.

For those hired on or after January 1, 1988, creditable service excludes the first six months of service.

Maximum Allowance

The formula-based retirement allowance (as described above) of any member shall be limited to 60% of final compensation, except where the minimum allowance described below applies.

Minimum Allowance

A monthly benefit based on twice the actuarial value of accumulated member contributions. This is not subject to the 60% of final compensation maximum. (Sections 4.36.600, 4.36.605, 4.36.610 and 4.36.640)

Note: Effective January 1, 2011, the conversion of the contributions to an annuity benefit in the minimum allowance reflects option factors that use the new mortality rates.

Disability Retirement

Eligibility

Ten years of service credited within the 15 years preceding disability retirement. If disability occurs in the course of City employment, there is no service requirement.

Normal Form

Modified cash refund annuity. An optional survivor's benefit is available if the spouse is the beneficiary.

Amount of Allowance

The total monthly disability allowance is the greater of:

- (a) 1.5% times final compensation times completed years of creditable service.
- (b) 1.5% times final compensation times total years of creditable service that could have been earned to age 62, but not to exceed one-third of final compensation.

Maximum Allowance

The maximum disability allowance is 60% of final compensation.

Minimum Allowance

The minimum disability allowance is \$140 per month.

(Sections 4.36.645 and 4.36.650)

Death Benefits

Retired Members

Death benefits to retired members are payable according to the form of retirement allowance elected.

Active Members

- (a) Payment to the beneficiary of accumulated contributions, including interest; or
- (b) If the member had completed 10 years of service at the time of death, a surviving spouse or a registered domestic partner may elect to receive, in place of (a) above, either:
 - (1) A monthly allowance for life equal to the benefit the spouse would have received had the member just retired with a 100% contingent annuitant option in force; or
 - (2) A cash payment of no more than one-half of the member's accumulated contributions, along with a correspondingly reduced retirement allowance.

(Section 4.36.680)

Withdrawal Benefits

Form

Payment of accumulated contributions, with interest.

(Section 4.36.665A)

**Vested Withdrawal
Benefits**

Eligibility
Five years of service.

Amount of Allowance
Same as service retirement benefit.

Benefits Commence
Age 52, if 20 or more years of service;
Age 57, if 10-19 years of service; or
Age 62, regardless of years of service.
(Section 4.36.665)

**Postretirement Benefit
Increases**

Provisions
Effective January 1, 2007, the City Council adopted a 65% Restoration of Purchasing Power benefit and an automatic 1.5% annual COLA to all members.
If the System reaches a 100% Funding Ratio, the restoration amount increases to 70%.
(Section 4.36.615)

Death Benefit System

Eligibility
Mandatory for all active members; optional for retired members.

Benefits
\$2,000 upon the death of an active member or a participating retired member.

Assessment
Members pay an assessment of \$12 per year; the City pays a matching amount. If these assessments are not adequate, additional amounts may be transferred from the interest earnings in the retirement fund.
(Sections 4.36.690 and 4.36.695)

**Additional
Contributions**

Provisions
Members may voluntarily make contributions in excess of the regular rate; these are make-up contributions that apply only in specific situations.

Retirement Benefit
A monthly annuity which is the actuarial equivalent of accumulated additional contributions with interest.

Other Benefits
Accumulated additional contributions, with interest, generally become payable upon termination other than retirement.
(Sections 4.36.030 and 4.36.540A)

Appendix C Valuation Data



This valuation is based upon the membership of the system as of January 1, 2017. Membership data were supplied by the System and accepted for valuation purposes without audit. However, extensive tests were performed to ensure that the data are sufficiently accurate for valuation purposes.

The data for all contributing members, former contributing members, and their survivors are summarized in Table C-1.

Tables C-2 through C-4 present distributions of members receiving service retirement benefits, members receiving disability retirement benefits, and survivors receiving benefits. Shown in the tables are the numbers of persons receiving benefits, the total annual benefits received (including payments for the annual bonus), and the average annual benefit per recipient.

Table C-5 contains summaries of the data for contributing members. Values shown in the tables are the numbers of members and their total and average annual salaries.

The valuation also includes liabilities attributable to members who have terminated employment but have neither retired nor withdrawn their contributions.

Table C-1 Summary of Membership Data

	Contributing Members			Annuitants		
	Number	Annual Salaries (\$1,000)	Average Annual Salaries	Number	Annual Benefits (\$1,000)	Average Annual Benefits
Males	5,134	419,232	81,658	3,231	98,141	30,375
Females	4,017	306,348	76,263	3,151	76,791	24,370
January 1, 2017	9,151	\$ 725,580	\$ 79,288	6,382	\$ 174,933	\$ 27,411
January 1, 2016	8,882	686,748	77,317	6,223	165,836	26,650
January 1, 2015	8,746	647,800	74,068	6,019	155,597	25,852
January 1, 2014	8,603	606,888	70,548	5,880	147,145	25,026
January 1, 2013	8,465	579,396	68,449	5,742	137,836	24,006
January 1, 2012	8,430	560,412	66,476	5,580	128,645	23,056
January 1, 2011	8,599	569,472	66,225	5,428	118,920	21,909
January 1, 2010	9,071	596,892	65,802	5,304	108,886	20,529
January 1, 2008	8,842	529,062	59,835	5,201	102,772	19,760
January 1, 2006	8,521	468,096	54,934	5,011	83,988	16,761
January 1, 2004	8,382	441,562	52,680	4,876	74,341	15,246
January 1, 2002	8,758	418,908	47,831	4,733	61,801	13,058
January 1, 2000	8,669	382,620	44,137	4,681	55,542	11,865
January 1, 1999	7,779	333,984	42,934	4,644	52,482	11,301
January 1, 1998	7,926	329,028	41,512	4,649	50,394	10,840
January 1, 1996	8,078	314,448	38,926	4,619	44,271	9,585

Table C-2 Members Receiving Service Retirement Benefits as of January 1, 2017 – Inactive Lives

	<50	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90+	Totals
Number of Persons											
Male	1	10	107	347	771	779	468	302	172	163	3,120
Female	0	10	130	372	710	577	250	156	114	116	2,435
Total	1	20	237	719	1,481	1,356	718	458	286	279	5,555
Annual Benefits in Thousands											
Male \$	* \$	415 \$	4,213 \$	13,271 \$	25,651 \$	23,978 \$	13,725 \$	7,615 \$	3,987 \$	3,765 \$	96,620 \$
Female	0	457	5,165	12,531	20,085	14,604	5,329	3,072	1,832	1,397	64,472
Total	*	872	9,378	25,802	45,736	38,582	19,054	10,687	5,819	5,162	161,092
Average Annual Benefits											
Male \$	* \$	41,500 \$	39,374 \$	38,245 \$	33,270 \$	30,780 \$	29,327 \$	25,215 \$	23,180 \$	23,098 \$	30,968 \$
Female	0	45,700	39,731	33,685	28,289	25,310	21,316	19,692	16,070	12,043	26,477
Total	*	43,600	39,570	35,886	30,882	28,453	26,538	23,334	20,346	18,502	28,999

Table C-3 Members Receiving Disability Retirement Benefits as of January 1, 2017 – Inactive Lives

	<50	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90+	Totals
Number of Persons											
Male	1	3	3	4	3	4	4	3	1	0	26
Female	2	1	6	10	4	1	3	2	0	0	29
Total	3	4	9	14	7	5	7	5	1	0	55
Annual Benefits in Thousands											
Male	\$ * \$	58 \$	58 \$	71 \$	47 \$	54 \$	55 \$	38 \$	* \$	0 \$	381
Female	33	*	103	179	73	*	29	24	0	0	441
Total	33	58	161	250	120	54	84	62	*	0	822
Average Annual Benefits											
Male	\$ * \$	19,333 \$	19,333 \$	17,750 \$	15,667 \$	13,500 \$	13,750 \$	12,667 \$	* \$	0 \$	14,654
Female	16,500	*	17,167	17,900	18,250	*	9,667	12,000	0	0	15,207
Total	11,000	14,500	17,889	17,857	17,143	10,800	12,000	12,400	*	0	14,931

* Benefit amounts for groups with only one member not shown.

Table C-4 Survivors Receiving Retirement Benefits as of January 1, 2017 – Inactive Lives

	<50	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90+	Totals
Number of Persons											
Male	0	0	3	10	7	7	8	5	6	4	50
Female	6	9	22	39	64	76	67	72	100	173	628
Total	6	9	25	49	71	83	75	77	106	177	678
Annual Benefits in Thousands											
Male \$	0 \$	0 \$	50 \$	175 \$	70 \$	145 \$	82 \$	76 \$	51 \$	24 \$	673
Female	95	175	439	791	1,219	1,539	1,208	1,244	1,751	2,398	10,859
Total	95	175	489	966	1,289	1,684	1,290	1,320	1,802	2,422	11,532
Average Annual Benefits											
Male \$	0 \$	0 \$	16,667 \$	17,500 \$	10,000 \$	20,714 \$	10,250 \$	15,200 \$	8,500 \$	6,000 \$	13,460
Female	15,833	19,444	19,955	20,282	19,047	20,250	18,030	17,278	17,510	13,861	17,291
Total	15,833	19,444	19,560	19,714	18,155	20,289	17,200	17,143	17,000	13,684	17,009

Note: In addition, 35 male survivors are receiving \$467,376 and 59 female survivors are receiving \$1,019,355 in Option B or Option C for a certain period only.

Table C-5 Distribution of Employees and Salaries as of January 1, 2017 – Active Lives

Number of Employees - By Age Group - Males

Nearest Year of Service	<20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Totals
0		10	27	49	33	27	39	20	15	5	2		227
1	1	16	63	83	72	60	49	29	47	19	3		442
2		15	32	53	71	50	43	34	28	22	2	1	351
3-4		7	54	92	112	83	83	56	50	49	11	4	601
5-9			31	106	135	137	134	116	110	66	31	7	873
10-14			4	47	129	154	144	127	133	107	38	9	892
15-19				1	29	83	146	160	159	128	56	16	778
20-24						8	66	82	89	58	22	8	333
25-29							19	77	106	83	41	12	338
30-34								10	51	61	31	5	158
35-39								1	30	50	15	5	101
40+									1	15	16	8	40
Totals	1	48	211	431	581	602	723	712	819	663	268	75	5,134

Monthly Salaries in Thousands - By Age Group - Males

Nearest Year of Service	<20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Totals
0	\$	\$ 37	\$ 142	\$ 280	\$ 204	\$ 153	\$ 238	\$ 149	\$ 92	\$ 36	\$ 9		\$ 1,340
1	2	58	296	465	442	385	328	181	312	158	19		2,646
2		54	159	355	475	368	298	234	163	136	14	10	2,266
3-4		25	279	577	780	580	610	387	390	356	73	26	4,083
5-9			156	639	949	1,008	919	826	782	465	216	41	6,001
10-14			24	275	853	1,048	1,013	831	921	664	224	43	5,896
15-19				5	175	604	1,034	1,166	1,185	878	378	100	5,525
20-24						52	498	585	649	411	152	42	2,389
25-29							140	596	759	626	296	82	2,499
30-34								75	399	464	230	37	1,205
35-39								9	232	421	118	29	809
40+									7	111	115	44	277
Totals	2	174	1,056	2,596	3,878	4,198	5,078	5,039	5,891	4,726	1,844	454	34,936



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Table C-5 Distribution of Employees and Salaries as of January 1, 2017 – Active Lives (continued)

Average Monthly Salaries - By Age Group - Males

Nearest Year of Service	<20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Totals
0	\$ 2,000	\$ 3,700	\$ 5,259	\$ 5,714	\$ 6,182	\$ 5,667	\$ 6,103	\$ 7,450	\$ 6,133	\$ 7,200	\$ 4,500	\$	\$ 5,903
1	2,000	3,625	4,698	5,602	6,139	6,417	6,694	6,241	6,638	8,316	6,333		5,986
2		3,600	4,969	6,698	6,690	7,360	6,930	6,882	5,821	6,182	7,000	10,000	6,456
3-4		3,571	5,167	6,272	6,964	6,988	7,349	6,911	7,800	7,265	6,636	6,500	6,794
5-9			5,032	6,028	7,030	7,358	6,858	7,121	7,109	7,045	6,968	5,857	6,874
10-14			6,000	5,851	6,612	6,805	7,035	6,543	6,925	6,206	5,895	4,778	6,610
15-19				5,000	6,034	7,277	7,082	7,288	7,453	6,859	6,750	6,250	7,102
20-24						6,500	7,545	7,134	7,292	7,086	6,909	5,250	7,174
25-29							7,368	7,740	7,160	7,542	7,220	6,833	7,393
30-34								7,500	7,824	7,607	7,419	7,400	7,627
35-39								9,000	7,733	8,420	7,867	5,800	8,010
40+									7,000	7,400	7,188	5,500	6,925
Totals	2,000	3,625	5,005	6,023	6,675	6,973	7,024	7,077	7,193	7,128	6,881	6,053	6,805

Table C-6 Distribution of Employees and Salaries as of January 1, 2017 – Active Lives

Number of Employees - By Age Group - Females

Nearest Year of Service	<20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Totals
0		9	35	40	34	19	11	19	10	8	1		186
1		17	52	71	60	36	37	36	29	13	3		354
2		11	39	52	54	39	33	26	23	14	1		292
3-4		4	45	75	89	56	56	49	42	26	4	1	447
5-9			29	66	110	103	72	90	57	50	20	3	600
10-14			1	43	91	98	114	110	90	67	26	11	651
15-19				1	29	73	113	119	112	78	28	17	570
20-24						13	60	52	64	51	24	3	267
25-29						2	23	97	108	81	45	5	361
30-34								12	55	55	27	3	152
35-39									26	41	25	5	97
40+									1	15	19	5	40
Totals	0	41	201	348	467	439	519	610	617	499	223	53	4,017

Monthly Salaries in Thousands - By Age Group - Females

Nearest Year of Service	<20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Totals
0	\$	\$ 32	\$ 170	\$ 216	\$ 206	\$ 100	\$ 72	\$ 121	\$ 79	\$ 37	\$ 4		\$ 1,037
1		58	255	402	380	212	257	245	174	95	19		2,097
2		37	191	293	370	252	211	172	143	105	8		1,782
3-4		13	223	455	552	365	379	321	302	183	24	9	2,826
5-9			118	369	675	675	455	553	408	335	116	11	3,715
10-14			7	208	551	652	796	726	570	430	173	50	4,163
15-19				3	142	503	774	872	755	503	150	52	3,754
20-24						86	374	348	426	363	138	7	1,742
25-29						13	141	694	706	554	283	30	2,421
30-34								69	395	411	192	23	1,090
35-39									190	265	175	33	663
40+									6	91	110	32	239
Totals	0	140	964	1,946	2,876	2,858	3,459	4,121	4,154	3,372	1,392	247	25,529



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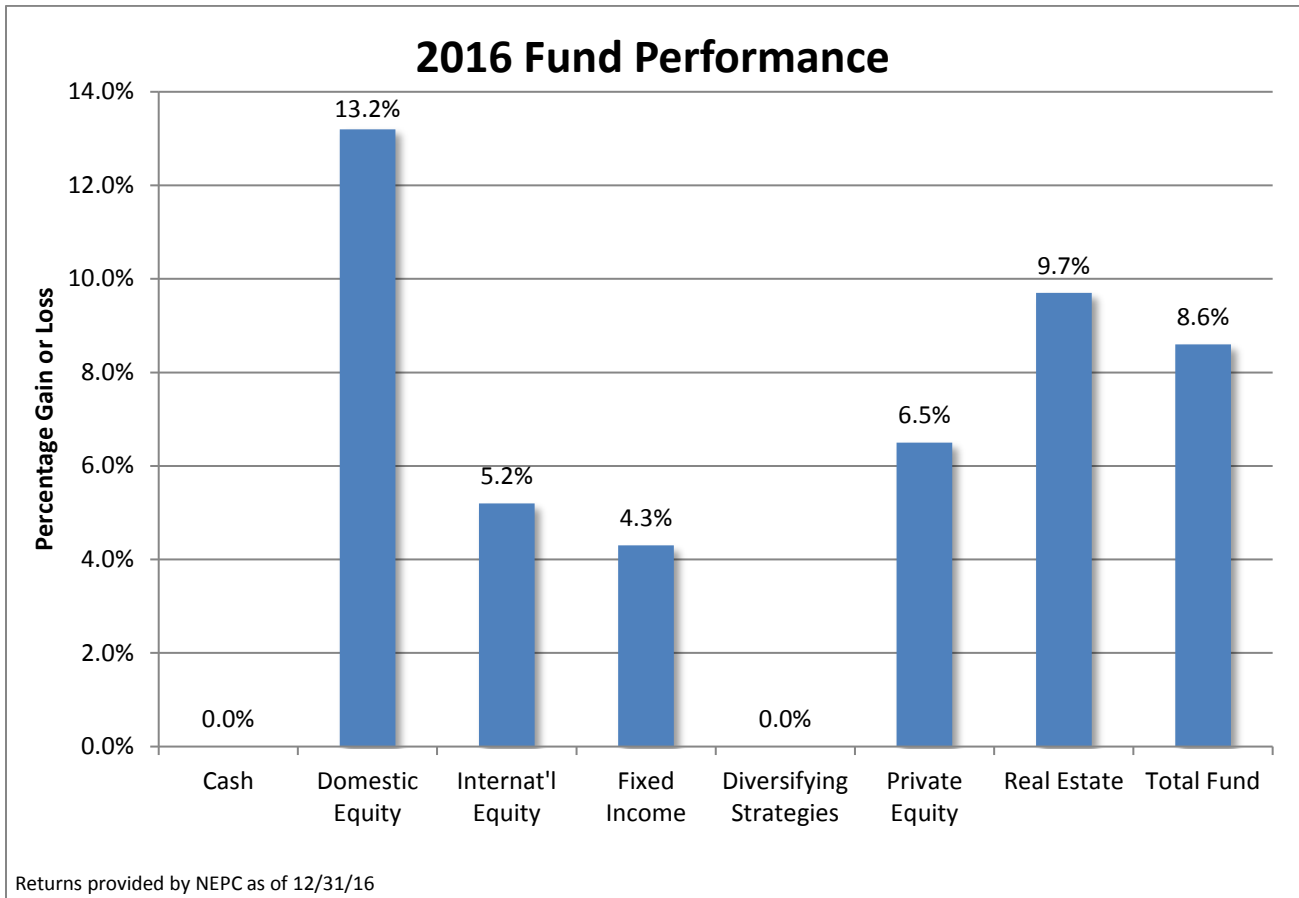
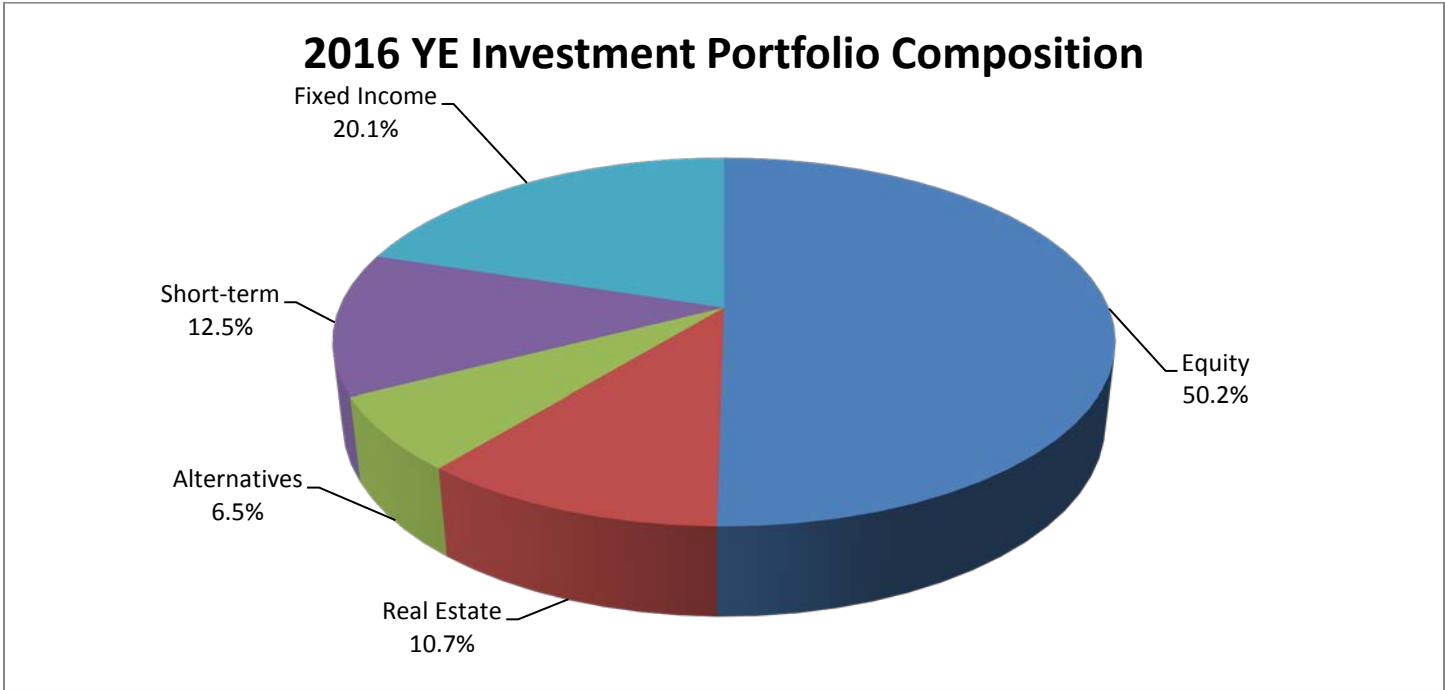
Table C-6 Distribution of Employees and Salaries as of January 1, 2017 – Active Lives (continued)

Average Monthly Salaries - By Age Group - Females													
Nearest Year of Service	<20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Totals
0	\$	\$ 3,556	\$ 4,857	\$ 5,400	\$ 6,059	\$ 5,263	\$ 6,545	\$ 6,368	\$ 7,900	\$ 4,625	\$ 4,000		\$ 5,575
1		3,412	4,904	5,662	6,333	5,889	6,946	6,806	6,000	7,308	6,333		5,924
2		3,364	4,897	5,635	6,852	6,462	6,394	6,615	6,217	7,500	8,000		6,103
3-4		3,250	4,956	6,067	6,202	6,518	6,768	6,551	7,190	7,038	6,000	9,000	6,322
5-9			4,069	5,591	6,136	6,553	6,319	6,144	7,158	6,700	5,800	3,667	6,192
10-14			7,000	4,837	6,055	6,653	6,982	6,600	6,333	6,418	6,654	4,545	6,395
15-19				3,000	4,897	6,890	6,850	7,328	6,741	6,449	5,357	3,059	6,586
20-24						6,615	6,233	6,692	6,656	7,118	5,750	2,333	6,524
25-29						6,500	6,130	7,155	6,537	6,840	6,289	6,000	6,706
30-34								5,750	7,182	7,473	7,111	7,667	7,171
35-39									7,308	6,463	7,000	6,600	6,835
40+									6,000	6,067	5,789	6,400	5,975
Totals		3,415	4,796	5,592	6,158	6,510	6,665	6,756	6,733	6,758	6,242	4,660	6,355

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Entry Age Actuarial Cost Method	A method under which the Actuarial Present Value of the Projected Benefits of each individual included in an Actuarial Valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages. The portion of this Actuarial Present Value allocated to a valuation year is called the Normal Cost. The portion of this Actuarial Present Value not provided for at a valuation date by the Actuarial Present Value of future Normal Costs is called the Actuarial Accrued Liability.
Funding Ratio	The Actuarial Value of Assets divided by the Actuarial Accrued Liability. May also be calculated as the Market Value of Assets divided by the Actuarial Accrued Liability, in which case it is indicated that the Funding Ratio is shown on a Market Value basis.
Normal Cost	That portion of the Actuarial Present Value of pension plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.
Projected Benefits	Those pension plan benefit amounts which are expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age and past and anticipated future compensation and service credits.
Surplus Funding	The excess of the Actuarial Value of Assets over the Actuarial Accrued Liability.
Unaccrued Benefit	The excess of an individual's Projected Benefits over the Accrued Benefits as of a specified date.
Unfunded Actuarial Accrued Liability	The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets.

STATISTICAL



**SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
SCHEDULE OF REVENUES BY SOURCE**

Employee Contribution % *	Employer Contribution % **	Fiscal Year	Member Contributions	Employer Contribution	Investment Income	Miscellaneous Income	Total
8.03	7.91	1980	\$ 9,166,162	\$ 10,470,335	\$ 16,284,473	\$ 846	\$ 35,921,816
8.03	8.54	1981	11,845,089	13,309,388	18,488,195	2,311	43,644,983
8.03	8.54	1982	12,465,220	14,790,039	21,106,414		48,361,673
8.03	8.54	1983	12,926,545	14,265,554	27,224,215	5,050	54,421,364
8.03	8.91	1984	14,076,607	15,961,211	30,543,443	67	60,581,328
8.03	8.91	1985	14,399,465	16,280,464	25,317,826		55,997,755
8.03	8.91	1986	15,164,105	16,758,439	33,081,706		65,004,250
8.03	8.91	1987	16,088,280	17,799,789	46,029,652	410	79,918,131
8.03	8.91	1988	16,701,142	18,521,365	36,397,481		71,619,988
8.03	8.91	1989	17,246,117	18,983,634	41,803,863	545	78,034,159
8.03	8.91	1990	20,405,149	21,810,612	27,725,284		69,941,045
8.03	8.91	1991	21,111,940	21,458,952	37,758,671		80,329,563
8.03	8.91	1992	21,564,881	25,117,924	41,792,730		88,475,535
8.03	8.91	1993	23,473,485	26,139,925	100,705,007	***	150,318,417
8.03	8.91	1994	24,764,862	26,704,211	3,670,356		55,139,429
8.03	8.91	1995	26,069,124	27,816,819	181,470,912		235,356,855
8.03	8.91	1996	25,835,147	28,372,760	118,399,056		172,606,963
8.03	8.91	1997	25,571,634	28,310,353	143,719,597		197,601,584
8.03	8.91	1998	27,311,815	30,554,650	168,477,507		226,343,972
8.03	8.03	1999	29,201,844	29,898,474	240,904,299		300,004,617
8.03	8.03	2000	30,962,052	30,956,217	(79,832,672)		(17,914,403)
8.03	8.03	2001	32,602,859	32,667,381	(93,021,798)		(27,751,558)
8.03	8.03	2002	39,388,249	36,599,830	(116,907,340)		(40,919,261)
8.03	8.03	2003	36,243,490	34,200,693	296,239,050		366,683,233
8.03	8.03	2004	37,192,591	36,819,271	177,211,711		251,223,573
8.03	8.03	2005	35,962,449	35,897,345	139,866,897		211,726,691
8.03	8.03	2006	38,228,475	38,077,976	251,934,917		328,241,368
8.03	8.03	2007	40,533,554	40,299,506	149,708,740		230,541,800
8.03	8.03	2008	45,986,139	45,961,040	(612,803,880)		(520,856,701)
8.03	8.03	2009	46,613,886	46,650,169	198,417,995		291,682,050
8.03	8.03	2010	45,364,624	45,224,787	216,839,059		307,428,470
9.03	9.03	2011	50,415,119	50,301,263	(8,233,151)		92,483,231
10.03	11.01	2012	57,086,346	62,515,432	237,789,669		357,391,447
10.03	12.89	2013	60,342,581	77,073,667	298,149,888		435,566,136
10.03	14.31	2014	63,969,504	89,988,898	130,807,611		284,766,013
10.03	15.73	2015	65,779,216	101,153,403	16,280,647		183,213,266
10.03	15.23	2016	71,755,857	108,454,496	198,649,719		378,860,072

* Employee Contributions reflected above are representative for the overall majority of active members. There are a small percentage of active members whose employee contribution rate is "grandfathered" at a slightly lower rate.

** Employer Contributions reflected as a percentage of covered payroll.

*** Beginning with 1993, the investment income reflects unrealized gains (losses) required by GASB 25.

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
SCHEDULE OF EXPENSES BY TYPE

Year	Benefits	Refunds	Administrative & Investment	Total
1980	\$ 17,584,611	\$ 1,786,654	\$ 331,600	\$ 19,702,865
1981	19,114,992	2,074,078	419,568	21,608,638
1982	21,358,214	2,151,528	458,261	23,968,003
1983	23,029,611	2,086,102	538,059	25,653,772
1984	25,175,469	3,366,999	737,445	29,279,913
1985	27,090,615	2,753,418	1,076,324	30,920,357
1986	28,777,844	3,212,415	1,340,874	33,331,133
1987	30,499,027	3,141,868	1,494,189	35,135,084
1988	32,093,902	3,293,088	1,408,946	36,795,936
1989	34,121,917	3,257,432	1,538,544	38,917,893
1990	36,431,265	3,592,483	1,636,911	41,660,659
1991	37,862,028	3,731,762	1,870,922	43,464,712
1992	38,884,790	3,585,672	2,109,340	44,579,802
1993	40,131,325	2,944,003	2,525,620	45,600,948
1994	42,420,358	3,412,882	2,639,538	48,472,778
1995	44,352,180	3,874,980	7,217,337	55,444,497
1996	46,257,605	3,888,043	7,989,200	58,134,848
1997	50,349,474	5,463,464	11,875,158	67,688,096
1998	56,247,811	7,502,444	12,145,939	75,896,194
1999	58,704,086	9,730,803	10,447,151	78,882,040
2000	62,844,355	11,641,902	10,634,557	85,120,814
2001	65,553,605	8,785,879	7,293,821	81,633,305
2002	68,825,558	12,019,852	7,250,214	88,095,624
2003	73,559,728	13,218,137	7,081,030	93,858,895
2004	77,289,288	9,791,692	7,188,848	94,269,828
2005	82,268,449	10,385,215	11,773,914	104,427,578
2006	87,583,509	10,553,067	10,715,425	108,852,001
2007	98,391,533	11,525,660	12,380,123	122,297,316
2008	102,703,230	10,223,415	8,188,287	121,114,932
2009	108,138,820	9,742,692	5,929,667	123,811,179
2010	113,650,795	14,715,000	11,605,536	139,971,331
2011	124,061,630	16,677,022	10,974,855	151,713,507
2012	134,135,553	14,913,574	10,431,260	159,480,387
2013	141,424,206	15,278,136	13,466,311	170,168,653
2014	150,239,008	15,103,615	13,868,184	179,210,807
2015	159,349,807	16,137,840	18,138,855	193,626,502
2016	168,967,298	16,456,570	18,224,795	203,648,663

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM**BENEFIT EXPENSE BY TYPE****Twenty Years Ending December 31, 2016**

Year	Age & Service Retirants	Benefits Survivors	Disability Retirants Benefits	Death Benefit	Refunds	Total
1997	44,350,246	4,996,325	612,903	390,000	5,463,464	55,812,938
1998	48,684,577	6,500,622	714,624	347,988	7,502,444	63,750,255
1999	50,902,672	6,821,887	698,527	281,000	9,730,803	68,434,889
2000	54,518,311	7,260,855	714,799	350,390	11,641,902	74,486,257
2001	57,122,024	7,486,988	672,593	272,000	8,785,879	74,339,484
2002	59,991,882	7,821,555	686,121	326,000	12,019,852	80,845,410
2003	64,301,813	8,215,109	714,806	328,000	13,218,137	86,777,865
2004	67,794,624	8,486,860	711,804	296,000	9,791,692	87,080,980
2005	72,390,702	8,754,471	785,276	338,000	10,351,215	92,653,664
2006	77,320,260	9,180,292	814,957	268,000	10,553,067	98,136,576
2007	87,019,040	10,230,265	864,228	278,000	11,525,660	109,917,193
2008	91,265,085	10,282,919	885,227	270,000	10,223,415	112,926,645
2009	95,951,625	11,022,403	886,684	278,108	9,742,692	117,881,512
2010	101,965,821	10,526,966	918,009	240,000	14,714,999	128,365,795
2011	112,072,113	10,804,171	919,345	266,000	16,677,022	140,738,651
2012	122,076,194	10,904,912	924,447	230,000	14,913,574	149,049,127
2013	129,360,508	10,845,604	914,094	304,000	15,278,136	156,702,342
2014	137,887,118	11,175,718	896,172	280,000	15,103,615	165,342,623
2015	146,991,429	11,232,712	913,166	212,500	16,137,840	175,487,647
2016	156,661,906	11,237,234	902,858	165,300	16,456,570	185,423,868

REVENUE RATIOS BY SOURCE
1975 Through 2016

Year	Member Contributions %	Employer Contributions %	Investment Income %	Total Revenue %	
1975	26	31	43	100	
1976	26	31	43	100	
1977	25	29	46	100	
1978	25	29	46	100	
1979	27	30	43	100	
1980	26	29	45	100	
1981	27	31	42	100	
1982	25	31	44	100	
1983	24	26	50	100	
1984	23	26	51	100	
1985	26	29	45	100	
1986	24	26	50	100	
1987	20	22	58	100	
1988	23	26	51	100	
1989	22	24	54	100	
1990	29	31	40	100	
1991	26	27	47	100	
1992	25	28	47	100	
1993	*	16	17	67	100
1994	*	45	48	7	100
1995	**	11	12	77	100
1996	**	15	16	69	100
1997		13	14	73	100
1998		12	14	74	100
1999		10	10	80	100
2000			<i>Net Loss</i>		
2001			<i>Net Loss</i>		
2002			<i>Net Loss</i>		
2003	10	9	81	100	
2004	15	15	70	100	
2005	17	17	66	100	
2006	12	12	76	100	
2007	18	18	64	100	
2008			<i>Net Loss</i>		
2009	16	16	68	100	
2010	15	15	70	100	
2011			<i>Net Loss</i>	100	
2012	16	17	67	100	
2013	14	18	68	100	
2014	23	33	44	100	
2015	36	55	9	100	
2016	19	29	52	100	

* Beginning with 1993, the investment income reflects unrealized gains (losses) required by GASB 25.

** Beginning with 1996 (and 1995 has been restated) investment income includes the gross income from Securities Lending as required by GASB 28.

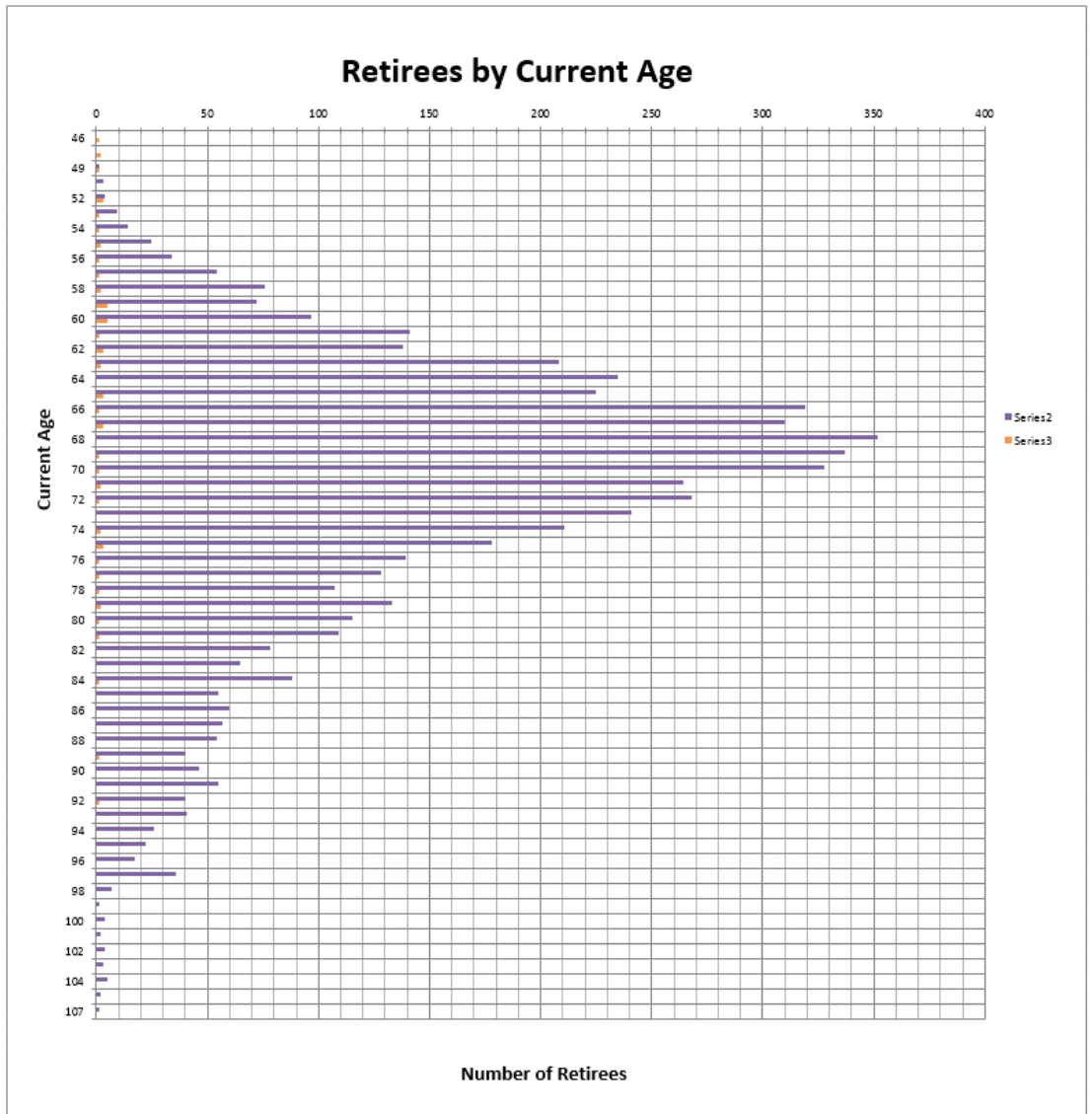
SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
SCHEDULE OF INVESTMENT RESULTS
Ten Years Ending December 31, 2016

Year	Investment Income *	Investments Market Value	Securities Lending Collateral	Return on Market Value
2007	149,708,740	2,106,345,982	103,323,467	7.3%
2008	(612,803,880)	1,467,556,416	69,838,616	(26.8)%
2009	198,417,995	1,635,993,047	36,491,886	10.8%
2010	216,839,059	1,809,331,365	33,896,148	13.2%
2011	(8,233,150)	1,750,742,911	3,489,721	(0.0)%
2012	237,789,669	1,944,976,344	10,154,781	14.0%
2013	298,225,616	2,213,014,808	13,595,048	15.5%
2014	131,047,615	2,315,159,044	25,231,590	5.7%
2015	17,011,351	2,297,798,733	50,952,037	0.3%
2016	198,915,311	2,473,986,443	11,130,677	8.6%

* Investment Income includes market gains and losses, and gross income from Securities Lending.

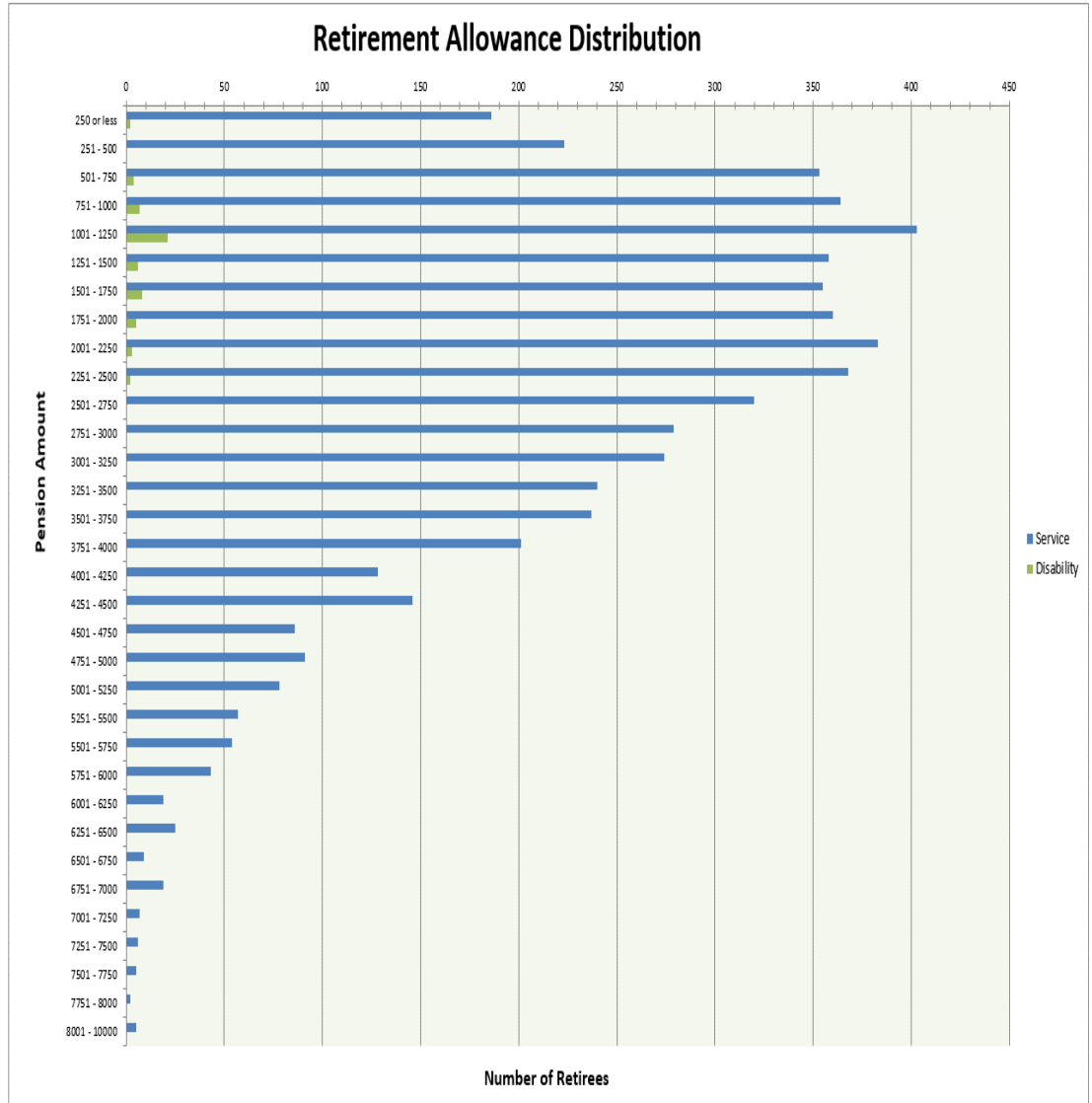
SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM SERVICE AND DISABILITY PENSIONERS BY AGE As of December 31, 2016

Current AGE	Service	Disability
46	0	1
47	0	2
49	1	1
51	3	0
52	4	3
53	9	1
54	14	1
55	25	2
56	34	1
57	54	1
58	76	2
59	72	5
60	97	5
61	141	1
62	138	3
63	208	2
64	235	0
65	225	3
66	319	1
67	310	3
68	352	0
69	337	1
70	328	1
71	264	2
72	268	1
73	241	0
74	211	2
75	178	3
76	139	1
77	128	1
78	107	1
79	133	2
80	115	1
81	109	1
82	78	0
83	65	0
84	88	1
85	55	0
86	60	0
87	57	0
88	54	0
89	40	1
90	46	0
91	55	0
92	40	1
93	41	0
94	26	0
95	22	0
96	17	0
97	36	0
98	7	0
99	1	0
100	4	0
101	2	0
102	4	0
103	3	0
104	5	0
106	2	0
107	1	0
5684	58	



SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM RETIREMENT ALLOWANCE DISTRIBUTION As of December 31, 2016

	\$	\$	Service	Disability
250 or less	250.00	or less	186	2
251 - 500	251.00	- 500.00	223	0
501 - 750	501.00	- 750.00	353	4
751 - 1000	751.00	- 1,000.00	364	7
1001 - 1250	1,001.00	- 1,250.00	403	21
1251 - 1500	1,251.00	- 1,500.00	358	6
1501 - 1750	1,501.00	- 1,750.00	355	8
1751 - 2000	1,751.00	- 2,000.00	360	5
2001 - 2250	2,001.00	- 2,250.00	383	3
2251 - 2500	2,251.00	- 2,500.00	368	2
2501 - 2750	2,501.00	- 2,750.00	320	0
2751 - 3000	2,751.00	- 3,000.00	279	0
3001 - 3250	3,001.00	- 3,250.00	274	0
3251 - 3500	3,251.00	- 3,500.00	240	0
3501 - 3750	3,501.00	- 3,750.00	237	0
3751 - 4000	3,751.00	- 4,000.00	201	0
4001 - 4250	4,001.00	- 4,250.00	128	0
4251 - 4500	4,251.00	- 4,500.00	146	0
4501 - 4750	4,501.00	- 4,750.00	86	0
4751 - 5000	4,751.00	- 5,000.00	91	0
5001 - 5250	5,001.00	- 5,250.00	78	0
5251 - 5500	5,251.00	- 5,500.00	57	0
5501 - 5750	5,501.00	- 5,750.00	54	0
5751 - 6000	5,751.00	- 6,000.00	43	0
6001 - 6250	6,001.00	- 6,250.00	19	0
6251 - 6500	6,251.00	- 6,500.00	25	0
6501 - 6750	6,501.00	- 6,750.00	9	0
6751 - 7000	6,751.00	- 7,000.00	19	0
7001 - 7250	7,001.00	- 7,250.00	7	0
7251 - 7500	7,251.00	- 7,500.00	6	0
7501 - 7750	7,501.00	- 7,750.00	5	0
7751 - 8000	7,751.00	- 8,000.00	2	0
8001 - 10000	8,001.00	- 10,000.00	5	0
	Sub Total		5,684	58



SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
ACTIVE MEMBERSHIP EXPERIENCE
For the Last Thirty Years

Year	Members at End of Period	New Members During Period	Withdrawals During Period	Re-entering & Re-depositing	Deaths During Period	Pensions Granted During Period
1987	7,196	622	312	72	16	190
1988	7,252	542	361	45	10	160
1989	7,544	672	251	51	12	168
1990	7,813	872	454	45	12	182
1991	8,037	681	354	43	13	133
1992	8,171	463	220	32	17	124
1993	8,317	537	279	39	15	136
1994	8,553	512	201	133	16	192
1995	8,741	477	284	136	12	153
1996	8,584	339	270	13	12	227
1997	8,572	435	287	36	18	178
1998	8,743	557	236	29	9	170
1999	9,576	1,289	238	14	17	215
2000	9,836	876	393	17	13	227
2001	10,111	706	241	25	18	197
2002	9,737	426	503	16	12	301
2003	9,964	628	202	5	14	190
2004	10,222	636	123	4	8	251
2005	10,387	635	212	3	11	247
2006	10,493	710	325	15	16	278
2007	10,892	948	292	37	8	286
2008	10,831	833	340	83	9	187
2009	11,077	347	313	122	16	221
2010	10,597	273	397	17	15	355
2011	10,477	317	239	16	12	321
2012	10,075	405	219	15	9	351
2013	10,627	786	235	28	12	331
2014	10,894	785	208	31	11	320
2015	11,165	853	228	34	10	377
2016	11,595	958	194	17	18	307

SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
COMPARATIVE STATEMENT OF EXPERIENCE OF SERVICE AND DISABILITY RETIREMENT PAYROLLS
From Inception in 1929, Through 2016

Figures Quoted as of the End of Each Fiscal Period

	Number Retired During Period			Number Deceased During Period		Pensions Discontinued			Benefit Cont' to Beneficiary Service	Number on Payroll at End of Period		
	Service	Sec. 19-b	Disability	Service	Disability	Service	Beneficiary	Disability		Service	Beneficiary	Disability
1929 - 1982 Inclusive	6,486	431	938	3,297	647	3	380	84	592	3,108	583	214
December 31, 1983	248	12	5	137	10		29		55	3,344	684	202
December 31, 1984	206	9	4	135	14		28		51	3,415	716	192
December 31, 1985	202	4	7	115	18		19	1	48	3,505	743	183
December 31, 1986	175	10	4	140	9		13		20	3,540	760	178
December 31, 1987	184	6	7	132	16		6		16	3,592	776	169
December 31, 1988	158	2	3	120	9		25		37	3,627	790	163
December 31, 1989	163	8	5	141	12		5		43	3,660	780	154
December 31, 1990	181	10	1	128	16		7		44	3,695	827	140
December 31, 1991	129		4	158	12		31		70	3,665	866	132
December 31, 1992	121		3	161	4		32		50	3,625	884	131
December 31, 1993	133	6	3	157	6		42		45	3,601	894	127
December 31, 1994	181	10	1	159	10		53		55	3,608	922	117
December 31, 1995	148	5	2	162	5		54		38	3,591	914	114
December 31, 1996	225	3	1	173	8		44		49	3,659	907	106
December 31, 1997	170	9	1	186	9		75		69	3,622	931	98
December 31, 1998	166	2	2	170	9	1	45		51	3,614	942	91
December 31, 1999	208	5	2	167	5		67		51	3,662	931	88
December 31, 2000	222	4	1	142	4		46		43	3,699	933	84
December 31, 2001	192	4	1	152	8		53		33	3,733	924	76
December 31, 2002	290	5	6	170	5		49		48	3,836	945	77
December 31, 2003	189	6	1	163	5		67		57	3,858	945	73
December 31, 2004	243	2	6	172	6		61		39	3,924	930	73
December 31, 2005	235	6	6	164	3		66		70	3,993	942	76
December 31, 2006	270	6	2	151	6		72		33	4,113	908	72
December 31, 2007	277	6	2	155	2		70		59	4,231	897	72
December 31, 2008	192	5	1	158	2		72		51	4,295	875	77
December 31, 2009	221	16	1	144	4		60		47	4,345	885	75
December 31, 2010	355	5	0	159	0		68		41	4,546	808	74
December 31, 2011	321	4	1	136	2		76		50	4,712	802	66
December 31, 2012	351	6	2	155	5		66		36	4,844	779	62
December 31, 2013	328	1		214	7	4	12		53	5,025	758	58
December 31, 2014	317		3	157			55		36	5,209	755	62
December 31, 2015	371	2	6	136	6	3	67		27	5,494	713	61
December 31, 2016	307	0	0	153	4	2	62	0	41	5,576	703	55
										2015 Grand Total		6,334

**SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
EXPERIENCE IN MISCELLANEOUS AVERAGES
For the Last Thirty Years**

	AVERAGE SERVICE RETIREMENT ALLOWANCE	AVERAGE AGE OF SERVICE PENSIONERS	AVERAGE DISABILITY RETIREMENT ALLOWANCE	AVERAGE AGE OF DISABILITY PENSIONERS	ACTIVE MEMBERS DECEASED	
					# OF DEATHS	AVERAGE AGE
1987	608.43	70.80	314.43	66.60	16	49.13
1988	655.62	70.02	357.61	66.40	14	49.93
1989	664.36	71.45	343.74	66.53	12	49.17
1990	697.54	71.72	352.75	65.88	12	47.67
1991	757.07	72.19	378.41	66.61	13	57.77
1992	749.31	72.44	366.23	66.30	17	50.94
1993	775.72	73.42	394.13	67.80	15	53.00
1994	811.55	73.28	407.60	67.52	16	55.00
1995	850.50	73.45	431.19	67.78	12	53.67
1996	904.11	73.43	423.86	68.88	12	44.92
1997	961.30	73.29	448.15	68.12	18	54.72
1998 *	1,063.66	73.30	594.09	68.13	9	56.11
1999	1,114.34	73.10	609.19	68.25	17	55.24
2000	1,167.60	72.88	622.66	68.69	13	50.77
2001	1,222.42	72.70	654.53	67.84	18	51.39
2002	1,289.77	72.16	703.83	67.25	12	54.33
2003	1,338.49	72.14	734.85	66.78	14	53.14
2004	1,404.86	71.93	788.94	65.40	8	50.62
2005	1,477.58	71.78	827.46	65.15	11	53.18
2006	1,552.57	71.53	877.96	64.75	16	51.94
2007	1,768.13	71.42	1,010.15	65.53	8	53.13
2008	1,822.44	71.92	1,038.93	65.49	9	52.33
2009	1,873.39	71.51	1,077.33	64.15	16	58.00
2010	1,965.36	71.32	1,110.10	65.84	15	55.73
2011	2,043.56	71.29	1,144.88	65.61	12	54.00
2012	2,152.85	71.21	1,203.52	66.08	9	57.67
2013	2,206.86	71.60	1,220.27	65.97	12	59.90
2014	2,268.70	71.26	1,257.92	65.33	11	53.27
2015	2,332.94	71.30	1,296.45	64.27	10	57.30
2016	2,392.64	71.55	1,331.95	64.46	18	56.33

* Beginning in 1998 the average retirement allowance numbers include the monthly COLA amounts.

**SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
SCHEDULE OF AVERAGE BENEFIT PAYMENTS**

Retirement Effective Dates	Years Credited Service					
	<u>0-10</u>	<u>11-15</u>	<u>16-20</u>	<u>21-25</u>	<u>26-30</u>	<u>31 +</u>
Jan. 1, 2007 to Dec. 31, 2016						
Period 1/1/07 to 12/31/07						
Average Monthly Benefit	\$ 658.92	1,406.25	1,650.87	2,132.89	2,814.90	3,129.50
Average Final Salary	\$ 5,017.90	5,992.08	4,865.08	5,096.68	5,414.43	5,412.96
Number of Active Retirees	53	36	37	54	61	44
Period 1/1/08 to 12/31/08						
Average Monthly Benefit	\$ 693.96	1,307.50	1,683.04	2,237.23	3,032.86	3,467.66
Average Final Salary	\$ 5,616.72	5,133.11	5,029.50	5,470.66	5,896.14	5,682.79
Number of Active Retirees	25	18	20	37	41	46
Period 1/1/09 to 12/31/09						
Average Monthly Benefit	\$ 725.01	1,200.14	1,633.91	2,191.40	2,895.97	3,517.60
Average Final Salary	\$ 6,221.46	5,346.25	5,391.47	5,637.85	5,937.71	6,298.57
Number of Active Retirees	35	36	26	34	33	57
Period 1/1/10 to 12/31/10						
Average Monthly Benefit	\$ 743.52	1,230.93	1,819.18	2,553.58	3,152.03	3,738.60
Average Final Salary	\$ 4,657.13	5,098.76	5,424.67	6,829.01	6,418.87	6,161.06
Number of Active Retirees	35	32	59	57	90	82
Period 1/1/11 to 12/31/11						
Average Monthly Benefit	\$ 770.06	1,387.07	1,986.83	2,439.29	3,370.92	3,912.57
Average Final Salary	\$ 5,937.02	5,547.89	6,190.33	6,320.57	6,492.13	6,399.97
Number of Active Retirees	41	39	31	64	58	90
Period 1/1/12 to 12/31/12						
Average Monthly Benefit	\$ 846.84	1,988.33	2,004.20	2,942.30	3,331.36	3,859.10
Average Final Salary	\$ 5,698.96	6,197.59	5,938.01	6,511.90	6,562.86	6,479.21
Number of Active Retirees	59	36	45	57	74	80

Retirement Effective Dates	Years Credited Service					
	<u>0-10</u>	<u>11-15</u>	<u>16-20</u>	<u>21-25</u>	<u>26-30</u>	<u>31 +</u>
<u>Jan. 1, 2007 to Dec. 31, 2016</u>						
Period 1/1/13 to 12/31/13						
Average Monthly Benefit	\$ 956.90	1,698.31	2,270.52	2,859.90	3,432.76	4,014.78
Average Final Salary	\$ 5,910.57	6,526.74	6,126.15	6,900.96	6,775.70	6,667.11
Number of Active Retirees	45	43	34	58	63	85
Period 1/1/14 to 12/31/14						
Average Monthly Benefit	\$ 933.87	1,709.96	2,209.50	2,659.54	3,684.43	4,461.46
Average Final Salary	\$ 6,141.78	6,444.04	6,814.88	6,012.59	7,017.93	6,692.68
Number of Active Retirees	69	32	42	48	71	55
Period 1/1/15 to 12/31/15						
Average Monthly Benefit	\$ 906.17	1,720.51	2,010.67	3,050.66	3,542.68	4,301.93
Average Final Salary	\$ 6,402.57	6,829.11	6,313.27	6,822.33	6,512.09	6,887.75
Number of Active Retirees	66	48	41	69	66	78
Period 1/1/16 to 12/31/156						
Average Monthly Benefit	\$ 980.70	1,698.99	2,330.34	3,175.59	3,531.85	4,836.48
Average Final Salary	\$ 6,453.25	6,407.79	6,432.5	7,121.27	6,809.85	7,176.18
Number of Active Retirees	57	48	41	53	55	67
Period 1/1/07 to 12/31/16						
Average Monthly Benefit	\$ 821.6	1,534.80	1,959.91	2,624.24	3,278.98	3,923.97
Average Final Salary	\$ 5,805.74	5,952.34	5,852.59	6,272.38	6,383.77	6,385.83
Average Number of Retirees	49	37	38	53	61	68

**NEW MEMBERS IN THE RETIREMENT SYSTEM IN 2016
BY DEPARTMENT**

Department Name	Count
Arts and Culture	3
City Budget Office	4
City Employees Retirement Syst	3
City Light	119
Dept of Education & Early Lrng	8
Dept of Finance & Admn Svc	65
Executive Departments	34
Fire Department	8
Human Services	56
Law Department	17
Legislative-City Council	22
Municipal Court	21
Neighborhoods Department	6
Parks Department	99
Police Department	49
SDHR-Temporary Emp Svcs	7
Seattle Center	28
Seattle Dept of Const and Insp	50
Seattle Dept of HumanResources	24
Seattle Dept of Transportation	119
Seattle Information Technology	51
Seattle Public Library	44
Seattle Public Utilities	121
Total	958

**RETURNING MEMBERS IN THE RETIREMENT SYSTEM IN 2016
BY DEPARTMENT**

Redepositing	Count
City Of Seattle	1
Dept of Finance & Admn Svc	1
Fire Department	1
Seattle Dept of Transportation	1
Seattle Information Technology	1
Total	5
Re-entering	Count
City Light	2
Dept of Finance & Admn Svc	2
Human Services	2
Municipal Court	1
Parks Department	3
Seattle Center	2
Seattle Dept of Const and Insp	1
Seattle Dept of Transportation	2
Seattle Information Technology	2
Seattle Public Utilities	1
Total	18

**SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
SERVICE RETIREMENTS GRANTED IN 2016**

Retiree	Department Name	Position	Yrs	Days	Age
Aana,Leialoha M	Police	Pol Comms Dispatcher I	25	226	56
Abuan,Julius B	Parks Dept	Maint Laborer	25	196	65
Adams,Darlene Marie	FAS	Admin Support Asst-BU	34	309	62
Addington,Ruby A	City Light	Actg Tech II-BU	17	350	71
Adler,Robert J	Library	Bldg Maint Wkr	15	30	64
Aho,Walter A	Vested Member	Line C CC	37	316	59
Ambion,Eloida R	Seattle Public Utili	Mgmt Sys Anlyst,Sr	37	69	62
Andersen,Cathleen J	Parks Dept	Manager2,Human Svcs	24	190	63
Anderson,Cynthia S	Seattle City Light	Elctn-Con-(OI)	22	24	62
Anderson,Jacqueliene P	FAS	Accountant,Prin	10	337	66
Anderson,Kathleen B	SeaTech	Info Technol Prof A,Exempt	9	20	63
Anderson,Kenneth L	FAS	Auto Mechanic	25	73	62
Anderson,Sharon A	King County	Health	28	270	61
Andrews,Denise M	Vested	Manager2,Utills	11	327	57
Aubrey,Jack L	SDOT	Truck Drvr	28	261	65
Balcos,Evelyn J	Seattle Police Depar	Parking Enf Ofcr	43	72	68
Banks,Teresa Ann	SeaTech	Info Technol Techl Support	12	362	63
Barnes,Dean E	Vested	Executive2	8	4	66
Barton,Peter T	City Light	Civil Engr,Sr	10	44	64
Batayola,Felipe V	City Light	Elctn-Con CC	27	316	66
Bath,Russell R	Department of Planni	Elecl Inspector,Sr(Expert)	32	151	66
Baxendale,Eleanore S	Exec Dept	Asst City Attorney	15	95	66
Beaty,Keith E	Sea Center	Stage Tech,Lead	28	211	59
Beaumont,Victoria G	PublicUtil	StratAdvrs2,General Govt	36	182	61
Becker,Bart	Vested Member	Plng&Dev Spec,Sr	11	238	66
Behrndt,David	FAS	Manager1,Fin,Bud,&Actg	30	195	63
Bennett,Stephanie J	Law Dept	Admin Spec II	8	329	70
Berry,James Arthur	SDOT	Maint Laborer,Sr-Traffic	24	143	67
Berry,L. N	SeaTech	Info Technol Prof B-BU	10	259	69
Berry,Susan J	Vested		9	1	59
Bethea,Regena Lynn	SDOT	Admin Staff Anlyst	22	277	61
BILLINGSLEY, DAWN	Vested	#N/A	8	350	62
Bills,Lane E	FAS	Auto Mechanic	15	255	64
Bjorkman,Hal R	SDOT	Constr&Maint Equip Op	31	171	63
Blanchard,Kathleen Mora	Parks Dept	Gardener,Sr	26	83	60
Blythe,Giselle G	Parks Dept	Gardener	20	343	64
Booth,Robin A	Seattle Police Depar	Parking Enf Ofcr	19	264	66
Boyd,George William	Vested	Maint Laborer	20	354	54
Bradish,Thomas M	City Light	Rights-Of-Way Maint Wkr	29	364	63
BRADY, DONALD L.	Vested	#N/A	47	16	73
Brant,Gregory S	Vested Member	StratAdvrs2,Info Technol	1	85	59

Brautigam,Jack A.	City Light	Plng&Dev Spec,Sr	16	254	65
Brice,Michael A	City Light	Jrnywkr In Chg	29	118	61
Bruk,Elena	Human Svcs	Counslr	16	198	70
Burman,Julie R	Seattle Public Utili	StratAdvsr1,Utills	6	344	65
Burns,William D	Department of Parks	Pool Maint Wkr	38	283	62
Calderon,Arlene C	Seattle Police Depar	Parking Enf Ofcr	24	155	61
Campau,Daniel N	Parks Dept	Maint Laborer	37	77	64
Carr,Michelle L	Police	Identification Data Spec	15	296	72
Carver,Gary Dale	Seattle City Light	Elctn-Con	7	1	62
Chagzoetsang,Doma L	City Light	Util Acts Supv	30	255	57
Choi,Sarah	Human Svcs	Counslr	14	268	65
Christian,Clint A	City Light	Jrnywkr In Chg	43	152	75
Clark,Marjorie	LegCtyCncl	Admin Spec II	9	338	66
Clausen,Diane C	PublicUtil	StratAdvsr3 *	28	129	57
Cline,Robert Scott	LegCtyCncl	StratAdvsr-Legislative	31	96	66
Cobb,Jeffrey L	Parks Dept	Truck Drvr	34	346	61
Cole,Rochelle Denise	SeaTech	Info Technol Prof B	8	64	62
Collier,Sydney	FAS	Auto Mechanic	15	79	68
Connors,Susan	Library	Dev Ofc Admin Asst	16	278	62
Cooper,Rory K	Seattle Public Libra	Library Assoc IV	21	220	66
Coto,Jose R	Parks Dept	Laborer	10	76	64
Croll,Timothy C	PublicUtil	Executive2	36	75	62
Culleton,Roger S	City Light	Civil Engrng Spec Supv	13	70	62
CURRY, STEPHEN C	King County	Health & Envir Invest	46	101	73
CURTIS, ANNE T.	King County	CPR/AED Program Manager	23	294	59
Dadashi,Steven Hadi	City Light	Pwr Marketer	25	20	67
Davies,Lawrence Michael	PublicUtil	Info Technol Prof A,Exempt	11	292	60
Davis,Sharon G	Seattle Public Libra	Dev Ofcr	13	28	62
de Haan,Sibyl	Library	Librn	39	45	66
DeLong,Danny Glenn	Vested	#N/A	4	86	64
Dereszynski,Karen	Library	Library Assoc IV	21	248	65
Devine,Robert E	City Light	Admin Support Supv-BU	29	109	62
DeVries,Candace Anne	Seattle Public Utili	Wtr Treatment CC	21	110	65
Dexter,Sara E	Vested	Cook	14	35	60
Dickinson,James Scott	City Light	Mat Suplr-Asg Leo/Pdm/Hb	22	143	62
Dinehart,Karen M	Seattle City Light	Envrnmntl Anlyst,Sr	15	221	58
Dively,Dwight D	Vested Member	Executive4	22	281	58
Dong,Raymond G	Library	Asst Mgr-Library	42	104	62
Donnelly,Michael S	Sea Center	Lock Tech *	19	131	69
Downey,Brett W	Public Health - Seat		24	219	65
Drain,Dianne M	Vested	Parking Enf Ofcr	22	237	58
Dunlap,Margaret Jean	Vested	Rec Cntr Coord	10	12	66
Edwards,Earl H	Vested	Com Dev Spec	13	13	71
Entwisle,Loretta	Police	Admin Spec II-BU	24	8	67
Escarez,Teofila Mendez	City Light	Cust Svc Rep	30	168	66

Esterly,Janice M	Muni Court	Prob Counslr-Asg Pers Recog	10	87	71
Etter,Rita A	Police	Tenprint Supv	32	118	60
Farmer,Steven M	Library	Bldg Maint Svcs Supv	20	20	59
Fields,Shelia A	Muni Court	Court Clerk	35	103	66
Fleeks,Barbara A	Muni Court	Admin Spec II-MC	24	163	61
Flores,Larry R	SDOT	Personnel Spec,Sr	29	142	69
Forch Jr,Bobby Taliferro	Vested	Manager2,Engrng&Plans Rev	24	179	60
Fox,Frankie L	FIRE	Admin Spec III-BU	34	191	58
Furman,Stephen D	City Light	Comms Elctn II	34	184	62
Garrett,Roseanne M	SDCI	Admin Staff Asst	17	181	65
Gibbons,Gary L	Parks Dept	Capital Prjts Coord,Sr	24	289	57
Gil,Ernesto	SDOT	Truck Drvr,Heavy	26	36	52
Gilbertson,David Glen	Parks Dept	Manager1,Parks&Rec	35	15	65
Goldman,Herbert O	Vested	Rights-Of-Way Maint Lead Wkr	15	110	65
Goodlett,Martha	Vested	Plng&Dev Spec II	9	87	58
Gordon,Karen Sue	NeighbDept	Manager2,General Govt	32	173	60
Gravemaker,Jan E	Vested		1	362	65
Grayson,Philip A	City Light	Line C CC	36	129	63
Grohs,Kenneth Alvin	City Light	Info Technol Prof A,Exempt	19	355	62
Groshong,Kathleen K	Human Svcs	Plng&Dev Spec II	23	263	61
Guieb-Coe,Faye M	Police	Admin Spec I-BU	29	226	65
Guise,Eric S	Human Svcs	Trng&Ed Coord	23	354	69
Hairston,Patricia A	NeighbDept	StratAdvrs1,General Govt	8	45	68
Hampton,Preston Leon	City Light	Info Technol Prof B-BU	19	338	66
Hanson,Linda S	PublicUtil	Util Act Rep I	22	103	62
Harris,Donald M	Parks Dept	Manager2,Exempt	46	236	67
Harris,Randy	Vested Member	Drainage&Wstwtr Coll Wkr	12	338	57
Harvey,John Michael	City Light	Elecl Svc Rep,Sr	20	14	67
Harvey,Kenneth A	Seattle Department o	Radio Dispatcher	31	232	65
Hedley,Anne P	City Light	Elecl Engrng Spec, Asst II	40	63	69
HEINDSMANN, RENEE J	Vested	#N/A	13	288	62
Hemenway,Elise Jean	City Light	Gardener	30	76	62
Hennings,Richard Bruce	FAS	StratAdvrs2,General Govt	19	89	64
Heppner,Dale C	SDOT	Bridge Op	44	53	69
Heyman Jr,Walter H	FAS	Manager1,P&FM	26	104	62
Higashi,Christine Miller	Library	Publc Svc Prgms&Events Mgr	23	210	65
Hightower,Judith	Seattle Municipal Co	Muni Judge	25	80	67
Hildahl,David R	PublicUtil	Civil Engrng Spec,Assoc	24	31	53
Hill,Lynn Yvonne	Vested	Civil Engr,Assoc	18	120	57
Hobson,Kevin R	Police	Pol Comms Dispatcher II	30	336	56
Hoffer,Dennis W	PublicUtil	Forest Maint Wkr,Sr	10	179	62
Hoffman,Raymond F	PublicUtil	Executive4	25	358	60
Holman,James R	Parks Dept	Laborer	26	266	56
Holt,Peggy L	FIRE	Admin Spec III-BU	16	114	62
Horiuchi,Timothy P	City Light	Mat Suplr,Elec-Asg Phd/Cw/D	25	255	55

Horne, Tom	Library	Head of Tech&Coll Svcs	24	211	62
Huggins, Larry R	SDOT	Manager3, P&FM	13	11	69
Hume, Richard Baxter	Muni Court	Manager1, Exempt	29	360	62
Igo, Sandra Lynn	Exec Dept	Com Dev Spec	7	193	66
JACKSON, LAURA	King County	Health	27	270	61
Jacobs, Martha W	Vested	Plng&Dev Spec II *	1	73	66
Jacobson Jr, Frank A	PublicUtil	Auto Engr, Sr *	44	205	66
James, Linda M	Police	Parking Enf Ofcr	11	330	66
Javidando, Ella C	Muni Court	Court Clerk	35	131	57
Jessen, Larry W	SDCI	Elecl Inspector, Sr (Expert)	39	177	70
Jewell, Steven	Human Resources	StratAdvsr3, General Govt	14	211	57
Johanson, Thomas C	PublicUtil	Civil Engrng Spec, Sr	46	180	69
Johnsen, Kathleen G	Seattle City Light	Line C CC	28	241	52
Johnson, Carol A	Vested	Camp Svc Aide, Sr	9	360	62
Johnson, Daniel	Parks Dept	Executive2	26	48	59
Johnson, Robert R	SDCI	Elecl Plans Examiner	8	338	63
Kaiser, Barry H	City Light	Line C CC	31	354	62
Keese, Gary E	VarDept	StratAdvsr1, Exempt	17	288	65
Keiper, Bruce Gerald	City Light	Capital Prjts Coord, Sr	21	91	63
Kelly, Cheryl M	Vested	Usher *	0	235	65
Kennedy, Beverly A	SDCI	Info Technol Prof B-BU	7	42	62
Kerschner, Jeffrey Morgan	City Light	Generation Supv-BU	24	15	57
Keys, Lorrie C	SDCI	Actg Tech II-BU	26	85	56
Kieval, Patricia W	Vested	Personnel Spec	2	61	65
Kimbrough-Johnson, Donna	Vested		4	166	67
King, Sherri L	Vested	Mgmt Svcs Anlyst	16	2	62
Ko, Curtis J	FAS	Shop Opns Supv	33	148	59
Kortz, Jane F	CtyEmpRetr	Info Technol Prof B *	26	102	67
Kuhnly, Steven W	City Light	Cblspl CC-Asg C Coord	37	353	62
Kukahiko, Edward N	PublicUtil	Wtr Pipe Wkr, Sr	30	116	61
Kulzer, Louise R	PublicUtil	Manager3, Engrng&Plans Rev	13	152	69
Kuris, Leslie E	SDOT	Trng&Ed Coord	8	229	68
Kuwamoto, JoEllen	CBO	StratAdvsr2 *	30	286	59
Laird, Robert J	SDCI	Executive2	25	132	56
Langlois, Jerry R	Seattle Public Utili	Constr&Maint Equip Op	27	211	61
Launceford, John E	Parks Dept	Constr&Maint Equip Op	33	33	61
Lea, Richard G	PublicUtil	Truck Drvr, Heavy	10	277	62
Leaf, Jen	City Light	Mgmt Svcs Anlyst, Asst	14	223	62
Lee, Oliver D	Parks Dept	Maint Laborer	10	316	60
Lenss, Diane K	Police	Admin Support Supv-BU	11	221	62
Leong, Alan G	Department of Inform	Info Technol Prof A, Exempt	31	65	53
Lewis, Douglas	SDOT	Cement Finisher	29	305	61
Lightfoot, Kevin D	SDOT	Street Maint CC	18	55	61
Llarenas, Teresita	Vested	Util Act Rep I	25	318	60
Lo, Sara C	Vested Member	Librn	12	150	64

Logan,Jerry	SDOT	Maint Laborer	18	205	62
Lupton,Rick N	SDCI	StratAdvsr2,Engrng&Plans Rev	32	188	65
Lyles,Dwayne A	Department of Parks	Maint Laborer	14	119	58
MacKenzie,Ward R	Seattle City Light	Exec Asst	9	143	65
Mackey,Michael Elof	Seattle City Light	Meter Reader	9	201	65
Macri,Janet I	Department of Parks	Admin Staff Asst	13	112	58
Malgren,John A	Muni Court	Info Technol Prof B-BU	39	289	63
Manhas,Rajinder S	Vested	Executive3	8	52	68
Maraire,Mazvita Allen	Parks Dept	Rec Prgm Spec,Sr	20	228	54
Marple,Teresa M	Police	Pol Comms Dispatcher II	19	358	61
Marsten,Curtis L	Seattle Department o	Civil Engrng Spec,Assoc	29	4	62
Marsten,Vicki T	Seattle Public Utili	Civil Engr,Assoc	32	183	56
Martin,Ernesto	Seattle Public Utili	Prjt Fund&Agreemts Coord,Sr	34	245	68
Martin,Jon R	Parks Dept	Parks Maint CC	30	200	65
Mateo,Joselito V	PublicUtil	Wtr Quality Anlyst	24	215	65
Mathews,Marcie	Seattle Police Depar	Parking Enf Ofcr	28	297	53
Maxwell,Patricia L	Parks Dept	Rec Cntr Coord	26	312	69
Mazzella,Anthony J	SDOT	Manager2,General Govt	16	116	66
McBroom,Joyce Ann	Seattle Police Depar	Parking Enf Ofcr	18	56	66
McClister,Michael Thomas	City Light	Meter Reader,Sr	8	273	65
Medina, Antelia Soraida	Public Health - Seat		30	91	57
Mercer,Rosa	Muni Court	Court Clerk	5	357	63
Meredith,Richard L	Vested	Manager3,Engrng&Plans Rev	19	4	55
Milbourn,Virginia L	PublicUtil	Admin Spec III-BU	25	362	70
Miller,Donna M	Vested	Admin Spec III-BU	36	94	67
Minato,Marilyn J	FAS	Treasury Cashier,Sr	31	124	64
Miramontez,Johnny A	PublicUtil	Pmp Stat Maint Leadwkr	29	271	61
Mitchell,Katie A	Parks Dept	Carpenter,Sr	34	305	68
Modrell,Patrick H	City Light	Prot&Cntrl Elctn II	28	238	67
Monaghan,Suellen	FAS	Actg Tech I-BU	11	136	71
Morrison,Michael D	Seattle City Light	Auto Engr,Sr	23	92	57
Moscou,Jacqueline D	Vested	Publc/Cultural Prgms Spec,Sr	13	75	64
Moses,Miriam Israel	Vested	StratAdvsr2,Exempt	7	119	65
Mueller,Karen J	PublicUtil	Info Technol Prof C-BU	27	98	64
Munger,Lorie J	SDOT	Manager2,Engrng&Plans Rev	34	155	55
Nguyen,Vien T	Library	Janitor-Library	11	197	65
Niehaus,Lisa K	Vested Member	Gardener	10	121	60
Nishi,Rick L	Parks Dept	Manager3,Engrng&Plans Rev	30	55	58
O'Brien,Marion Ruth	Vested	#N/A	10	354	65
O'Brien,Patricia M	PublicUtil	StratAdvsr2,General Govt	24	262	66
Oesterreicher,Brian	Police	Pol Comms Dispatcher,Chief	30	93	52
Oiye,Alan Y	Department of Planni	Land Use Plnr IV	39	96	70
Oliver,Steven F	PublicUtil	Util Act Rep Supv II	10	153	62
Omoto,Craig Masayoshi	PublicUtil	Manager3,Fin,Bud,&Actg	10	12	60
Pageler,Margaret A	Vested	Councilmember	11	184	75

Paige,Dwayne K	PublicUtil	Plng&Dev Spec,Supvsng	26	236	65
Park,Nelson S	Seattle City Light	StratAdvsr1-BU *	40	208	68
Parker,Warren C	Vested Member	Bldg Inspector,Sr(Expert)	19	250	60
Peda,Erma Rose	Vested	Librn	6	272	62
Peterson,Joan	Arts&Cult	Arts Prgm Spec	19	175	63
Pfeiffer,Steven D	SDCI	StratAdvsr2,Engrng&Plans Rev	31	188	65
Phan,Slade	Parks Dept	Laborer	10	43	68
Philips,Christine	PublicUtil	Mgmt Sys Anlyst,Sr	32	187	62
Phillips,Duane R	Sea Center	Security Ofcr	19	120	62
Plumb,Terrance Michael	SDOT	Capital Prjts Coord,Asst	15	336	68
Ponath,Jacqueline Marie	Vested Member	Warehouser-BU	22	248	52
Price,Brenda L	Muni Court	Admin Support Supv-MC	15	96	67
Prieto,Manuel P	Sea Center	Carpenter	15	271	60
Pulford,Alvin Thomas	City Light	Capital Prjts Coord,Sr	23	234	65
Puloka,Madelene Louise	PublicUtil	Drainage&Wstwr Coll CC	30	128	50
Quinn,Joanne T	Exec Dept	Com Dev Spec,Sr	14	173	61
Radliff,Rick L	SDCI	Housing/Zoning Tech,Sr	22	146	57
Ray,Morris C	Police	Parking Enf Ofcr	23	52	64
Redford Jr,Donald G	Seattle Public Utili	Constr&Maint Equip Op	30	37	66
Reid,Craig D	Seattle City Light	Lnwkr	35	302	63
Rivera,Manolo	City Light	Actg Tech II-BU	36	256	68
Rmah,Blot	City Light	Meter Elctn Working CC	35	309	62
ROBERSON, CAROLYN M	Vested		7	304	63
Roberts,Kevin D	FAS	Parking Meter Collector	19	4	62
Roberts,Paul C	SDOT	Civil Engrng Spec,Assoc *	30	4	56
Rodol,Ali M	City Light	Pwr Marketer	31	4	61
Rollen,Donna Carol	Seattle Public Utili	Admin Spec II	13	328	68
Rood,Timothy W	SDOT	Transp Plnr,Assoc	19	20	66
Saclo Jr,Bernardino C	Electrical Inspectio	Elecl Inspector,Sr(Expert)	27	95	64
Scannell,Joel Francis	Library	Library Assoc II	14	234	67
Schilling,Elizabeth G	VESTED		10	10	63
Schmidt,David B	Parks Dept	Carpenter	20	96	58
Schuh,John J	City Light	Lnwkr	22	232	67
Schwedas,Daniela M	PublicUtil	Admin Staff Asst	15	63	67
Sears,Mark F	Department of Parks	Pool Maint Wkr	39	106	63
Seifert,Thomas W	FIRE	Fire Protection Engr,Sr	15	217	62
Sinclair,Nina J	Parks Dept	Envrnmtl Anlyst,Sr	22	291	65
Smit,Thomas	SDCI	Elecl Inspector,Sr(Expert)	18	140	82
Smith,Elora Annabel	Parks Dept	Carpenter	30	84	67
Smith,James W	PublicUtil	Actg Tech II-BU	27	243	62
Smith,Mary E	Vested Member		3	255	65
Soden,Andrew K	Vested Member	Volunteer Prgms Coord	7	351	60
Sorensen,Marc A	PublicUtil	Civil Engrng Spec,Sr	20	175	60
Specker,Christopher G	City Light	Elecl Engr,Assoc	25	306	55
Spexarth,Kristen C	Parks Dept	Gardener	11	243	68

Sprinkle,Helen	PublicUtil	Util Act Rep II	26	360	56
Spromberg,Linda C	Seattle Police Depar	Pol Comms Anlyst	41	193	67
Stewart,Thomas Leighton	City Light	Plng&Dev Spec II	18	245	65
Sugimura,Diane M	Exec Dept	Executive3 *	37	119	69
Surel,Almario Lopena	Finance and Administ	Warehouser,Sr-BU	34	209	65
Symonds,Katherine M	Muni Court	Prob Counslr I	37	313	66
Tacardon,Charlie A	SeaTech	Telecom Syst Installer,Sr	25	267	53
Taylor,Dennis	City Light	Jrnywkr In Chg	47	214	72
Thomas,Don A	City Light	Elctn-Con-Wkg CC	28	253	67
Thompson,Bonnie Eileen	Parks Dept	Personnel Spec,Asst	7	321	67
Thompson,Lester Purdell	Vested Member	Truck Drvr,Heavy	15	309	64
Thomson,Jennifer E	Parks Dept	Admin Support Asst-BU	9	69	66
Tonkyn,Christine Ann	City Light	Strucl Pntr CC	30	0	58
Traxler,Maureen A	SDCI	StratAdvsr2,Engrng&Plans Rev	26	186	63
Troisi,Victoria M	SDOT	Admin Staff Anlyst	24	337	61
Trolio,Thomas J	Human Svcs	Human Svcs Prgm Supv,Sr	19	183	66
Tuifua,Kilisitina M	PublicUtil	Pmp Stat Maint Leadwkr	25	345	68
Turner,Mary Elizabeth	SDOT	Public Relations Supv	37	240	65
Turrell,James F	City Light	Lnwrkr-Asg Locator	30	105	62
Valentin,Charles	City Light	Enrgy Mgmt Anlyst,Asst	36	135	58
Van Dan Acker,David J	FAS	Auto Mechanic	32	103	65
Ventoza,Linda Jean	Police	Parking Enf Ofcr	34	242	71
Waldron,Leslie Elaine	Seattle Department o	Admin Staff Anlyst	7	86	64
Warner,Thomas W	Human Svcs	Counslr	21	262	63
Watanabe,Anne J	Office of Hearing Ex	Hearing Examiner,Dep	21	214	61
Webb,Kim J	FAS	Spay&Neuter Tech	26	164	61
Wenderoth,Catherine A	Police	StratAdvsr1 *	33	275	56
Wenrick,Ricky A	City Light	Passenger & Tugboat Op,Sr	37	267	59
West,Philip W	City Light	Electric Util Exec 3,Ofcr	6	241	62
Wheeler,Ronald W	Vested	Vested	12	243	62
Whiteford,Marylou	Parks Dept	Real Property Agent,Sr	24	77	69
Whittemore,Ronald J	Vested	Civil Engrng Spec Supv	14	228	66
Wicklund,Jeanne Marie	Police	Admin Spec I-BU	5	280	61
Wilkens,Robert Lee	Parks Dept	Rec Cntr Coord	32	40	58
Williamson,David A	City Light	Cblspl-Net Area	35	345	66
Willis,Darren L	Department of Inform	Info Technol Prof B-BU	27	5	53
Wilson,Richard F	PublicUtil	Civil Engrng Spec,Asst III	15	218	68
Wong,Nelson Y	PublicUtil	Drainage&Wstwtr Lead Wkr CII	18	341	64
Wood,Carol A	PublicUtil	Admin Spec II-BU	25	164	67
Yeurokis,Sher Ann	City Light	Elecl Engrng Spec,Asst III	22	172	67
Young,Jeffrey R	City Light	Strucl Pntr	20	190	56
Total Service Retirements			307		

**SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM
RETIRED MEMBERS DECEASED IN 2016**

Name	Department Name	Retired For	Date Retired	Date of Death	Age at Death
Akers, Timothy W		Service	8/1/1983	10/16/2016	88
Alvarez, Fidel	SDOT	Service	5/7/2011	11/14/2016	71
Anderson, Richard L.	K.C. Health	Service	1/1/2004	7/16/2016	81
Anderson, Rita M.	SPU	Service	9/25/2002	8/17/2016	93
Baglien, Raymond C		Service	5/1/1981	12/20/2016	97
Baker, Michael A	City Light	Service	2/6/2010	5/25/2016	70
Ballew, Gary W.	Parks	Service	5/2/2007	12/15/2016	72
Bell, Maurice M	Police	Service	1/2/1998	7/26/2016	83
Boccamazzo, Frank Ralph	DPD	Service	10/14/2009	11/1/2016	72
Boden, James H	PublicUtil	Service	5/2/2014	10/24/2016	64
Born, Brian Michael	City Light	Service	1/9/2008	5/5/2016	70
Bossert, Burt F.	Fleets & Facilities	Service	4/6/2005	11/1/2016	67
Bray, Oscar C		Service	2/1/1982	6/25/2016	97
Burns, Byron L	City Light	Service	3/20/2012	2/9/2016	57
Calico, Franklin A		Service	1/1/1982	8/1/2016	93
Cameron, Doris E		Service	8/1/1981	6/20/2016	97
CARLSON, KURTIS F.	City Light	Service	1/5/2000	5/25/2016	72
Chapman, Evelyn J	Human Services	Service	1/6/2006	11/19/2016	80
Chesterman, Paul W	SPU	Service	11/25/2011	3/7/2016	56
Childress, Royce A	ESD	Service	6/3/1997	12/1/2016	86
Christensen, Steven A	Parks Dept	Disability	6/17/2015	2/7/2016	58
Christy, Teresa J	SPU	Service	8/3/2004	6/6/2016	68
Clark, Beverly B	KC Health	Service	1/1/1987	12/4/2016	91
Clark, Charles R		Disability	1/1/1976	10/1/2016	91
Clay, Iris	City Light	Service	9/15/2012	12/3/2016	58
Colacarro, Florence A		Service	6/1/1979	3/21/2016	100
Conrad, Frank A		Service	6/1/1987	7/30/2016	84
Couch, Jake E		Disability	10/1/1973	4/2/2016	83
Daniel, James C		Service	8/1/1986	12/23/2016	96
Daum, Junella M		Service	8/1/1981	8/12/2016	93
Dean, Clarence L	Muni-Court	Service	5/22/2001	4/30/2016	76
Demello, Judith L.	Police	Service	1/14/2004	7/24/2016	74
Dennis, Robert M.	DCLU	Service	7/11/2007	3/27/2016	75
Diggs, William D		Service	8/1/1989	10/1/2016	89
Dimaunahan, Ray		Service	9/10/1996	9/13/2016	79
Dobbs, Gary G.	Dual Member	Service	5/1/2003	7/5/2016	69
Donnor, Paul L	City Light	Service	1/23/1998	6/19/2016	86
Draper, Wallace M		Service	11/1/1980	5/9/2016	91
Dudman, Jack A	Sea Center	Service	7/1/1980	1/5/2016	98
Edgecombe, Melinda J	FAS	Service	9/11/2013	12/1/2016	65

Elenich, Frank A		Service	8/1/1983	11/1/2016	89
Evens, Loyd C		Service	10/1/1981	8/30/2016	88
Fenker, Lois A	Library	Service	8/4/2009	2/10/2016	67
Fischer, Bernard A	SDOT	Service	5/1/1994	7/4/2016	79
Foster, Jane A.	DCLU	Service	9/18/2002	3/18/2016	75
Freeman, John	City Light	Service	9/6/2001	4/21/2016	74
Freimund, Robert E		Service	6/1/1979	3/22/2016	94
FRYE, WILBERDEL	Municipal Courts	Service	9/8/1999	2/1/2016	78
Gallipeau, Guy H		Service	4/1/1994	9/16/2016	87
Garman, Gerald R		Service	10/1/1992	6/15/2016	78
Getchman, Geoffrey H	Police	Service	2/28/2011	4/2/2016	69
Gordon, Donald		Service	11/1/1993	4/19/2016	84
Gotidoc, Edgardo L	Municipal Courts	Service	2/4/2009	9/1/2016	69
Gran, William D		Service	7/1/1988	5/28/2016	92
Groncznack, Robert P.	Vested	Service	10/12/2007	12/1/2016	71
Gwilym, Edward T	Light	Service	8/1/1994	5/27/2016	83
Hall, Shirley C	City Light	Service	3/15/2011	10/17/2016	88
Hanna, Barbara A.	Municipal Courts	Service	6/5/2002	8/2/2016	85
Hardin, Stevaunt S		Service	1/1/1994	3/1/2016	78
Harewood-Potter, Angela B	Parks Dept	Service	7/7/2015	7/6/2016	63
Harris, John P		Service	6/1/1982	6/7/2016	86
Hedley, Anne P	City Light	Service	2/10/2016	2/12/2016	69
HENDERSON, ROBERT R	SPU	Service	6/5/1999	1/29/2016	78
Hill, Eino H		Service	12/1/1972	9/4/2016	99
Hoffmeister, Martha 92405059		Service	3/1/1983	6/21/2016	90
Howe, Colleen	Light	Service	4/1/1996	6/13/2016	82
Huchala, Beverly L		Service	6/1/1985	8/15/2016	84
Hulbert, Jack E	City Light	Service	5/28/2010	5/13/2016	70
Iams, Shirley A	Library	Service	7/1/1989	10/6/2016	89
Jacoby, Terrance E		Service	3/1/1990	11/23/2016	88
Jarvis, Cecil E 97002042		Service	3/1/1986	8/28/2016	95
Jenkins, Ralph A		Service	3/1/1990	2/9/2016	85
Johnson, Randall K	ESD	Service	6/2/1998	10/21/2016	71
Johnson-Holt, Pauline	FAS	Service	3/1/1980	3/16/2016	97
Karmil, Robert J		Service	2/1/1994	2/20/2016	84
Kelly, Thomas D.	City Light	Service	2/12/2004	3/26/2016	73
Kemmerer, Harold W		Service	8/1/1987	6/1/2016	87
Kennard, Daniel B.	SPU	Service	6/23/1999	5/1/2016	74
Kijima, Kiku	City Light	Service	4/1/1989	1/1/2016	96
Kimbrough, Jerry L.	Parks	Service	10/1/2002	11/10/2016	73
Kuhnly, Herbert W	City Light	Service	10/1/1984	8/14/2016	84
Lasko, Kerry A	Parks	Service	7/13/2005	5/26/2016	67
Lasser, Robert E	Park	Service	3/19/1997	11/19/2016	86
Laughlin, Jay B	SPU	Service	11/6/2010	5/28/2016	65

Lehman,John D		Service	5/1/1987	2/2/2016	91
Lindblom,Michael H.		Service	12/1/1995	5/10/2016	76
Lowe,Sharon P	Finance	Service	6/29/2013	8/3/2016	69
Luoma,Robert J		Service	4/1/1992	6/20/2016	90
Lynch, Timothy J.	Library	Service	5/28/2003	9/3/2016	77
Maltby,Nancy E		Service	8/1/1978	5/19/2016	89
Marshall,Kevin W	City Light	Service	12/30/2015	12/1/2016	59
Martos, James R. C.	City Light	Service	6/11/2008	9/27/2016	75
Masunaga,Marie K.	Seattle Center	Service	10/3/1997	5/6/2016	83
Matheson,Joan P	SDHR	Service	4/3/2015	5/31/2016	64
Mayes, Jean S	Info Tech	Service	4/15/2009	12/1/2016	74
McAlerney,John K	Health	Service	6/3/1998	4/4/2016	82
Mcfarlane,John G	Light	Service	5/1/1994	5/31/2016	80
Meyer,Allen L	City Light	Service	7/1/1986	2/9/2016	94
Miller,Avis D		Service	3/1/1978	5/14/2016	102
Moffitt,Michael	Library	Service	9/9/2000	5/5/2016	73
Moimoi,Kalolaine A	Personnel	Service	6/16/2004	10/26/2016	67
Moore,Loretta R		Service	7/1/1993	1/30/2016	99
Mount,D'Anne	DoIT	Service	12/29/2012	12/5/2016	68
Neely,James G		Disability	2/1/1988	12/24/2016	84
Nelson, Frank R	SDOT	Service	9/16/2009	8/13/2016	69
Nelson,Barbara A	KC Health	Service	3/1/1990	7/3/2016	76
Nelson,Warren J		Service	2/1/1985	12/29/2016	94
Nemesio, Ordonez	Library	Service	2/14/2004	3/30/2016	79
O'brien,Patricia J		Service	12/1/1991	2/23/2016	89
Orsi,Catherine A	Vested	Service	3/9/2015	3/14/2016	58
Pan,Ellen C		Service	1/1/1992	6/4/2016	86
Patterson,Marion		Service	9/10/1996	2/13/2016	81
PAVEK,MARY E.	K.C. Health	Service	1/1/2000	5/31/2016	75
Pedrin,Arlette G	Library	Service	4/1/1994	3/8/2016	87
Person, Mel	City Light	Service	5/3/2003	10/23/2016	75
Ponshock,Richard E		Service	3/1/1993	10/6/2016	89
Pumphrey Jr., Donald H	SPU	Service	1/6/2010	1/28/2016	74
Putnam,R Douglas		Service	3/1/1989	12/17/2016	92
Russell, Douglas G.	SDOT	Service	4/4/2007	4/28/2016	87
Rustia, Agueda	SPU	Service	10/1/2002	2/1/2016	92
Sakazaki,Florence T		Service	8/1/1995	9/1/2016	88
Salley,Sylvester T	Sea Center	Service	7/16/2014	7/1/2016	58
Selles,Robert D		Service	6/1/1985	4/24/2016	94
Shanafelt,William C	City Light	Service	1/23/1998	11/24/2016	88
Shannafelt,Deane K		Service	5/1/1995	12/30/2016	87
Shell, Charles W.	SDOT	Service	8/15/2008	10/17/2016	73
Shew,Harold		Service	1/3/1976	6/16/2016	89
Shreve,John 08324378	Vested	Service	1/1/1981	10/11/2016	97
Smith, Michael A	Fleets & Facilities	Service	9/10/2010	4/6/2016	71

Smith,Gerald V		Service	7/1/1994	10/1/2016	84
Smith,Orville V		Service	4/1/1987	7/3/2016	91
Smith,Sherri F		Service	9/10/2010	5/1/2016	58
Soliman,Theresa M	Police	Service	6/19/2006	8/28/2016	62
Soria,Fil D.	Seattle Center	Service	11/4/1997	11/28/2016	81
Spore,Harold A	City Light	Service	10/6/2004	6/28/2016	77
Sterling, Barbara		Service	1/1/1996	12/2/2016	96
Stripling,Marie M 012550	PublicUtil	Service	10/1/1978	1/17/2016	96
Sund,Dolores G		Service	3/1/1992	9/1/2016	90
Taplin Jr,Irving		Service	7/1/1995	8/1/2016	83
Thomson,William David		Service	9/1/1988	9/23/2016	89
Thostenson,Alton		Service	6/1/1974	12/25/2016	94
Van Inwegen,Robert L		Service	1/1/1989	11/22/2016	90
Van Leeuwen,Edward P.	Police	Service	5/2/2000	3/5/2016	77
Van Tuyl, Joyce B	Library	Service	7/1/2008	3/26/2016	90
Veach,Ronald L.	Municipal Courts	Service	2/1/2007	9/23/2016	75
Warth,John F		Service	3/1/1984	10/11/2016	94
Watts,George B	Sea Center	Service	5/1/1984	3/5/2016	95
Welch,James I	FAS	Service	3/1/1993	11/27/2016	86
Wilder,Robert L		Service	7/1/1994	10/1/2016	82
Wilkinson,Maurice W		Service	8/1/1980	5/16/2016	97
Williams,Jonnie M		Service	6/1/1990	1/30/2016	93
Williams,Robert I		Service	5/1/1985	10/1/2016	92
Wirth,Gale F		Service	2/1/1987	10/9/2016	88
Woodhouse, Philip R	SPU	Service	1/5/2011	1/12/2016	77
Zelk,Allen I		Service	7/1/1990	4/12/2016	90
Zenk,Norman H 95302279		Service	1/14/1987	11/16/2016	95
Ziegler,Joseph F		Service	3/1/1989	4/16/2016	89

COUNT

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Average Age of Deceased Service Pensioner	82
Average Age of Deceased Disability Pensioner	79
Number of Service Pensioners Deceased	153
Number of Disability Pensioners Deceased	4
Death Benefits for Deceased Active and Retired	165,300
Refunds Under Option "A"	4
Refunds Under Disability	0

DEATHS IN ACTIVE SERVICE DURING 2016

Member	Position	Department	Age
Aldridge,Andrea Marie	Admin Spec II	Dept of Const and Insp	56
Allen,Kendrick B	Elevator Inspector(J)	Dept of Const and Insp	62
Botz,Roxane M	Grants&Contracts Spec,Sr	Human Services	65
Carter,Dalrimple C	Rec Attendant *	Parks	74
Combs,Bradley D	StratAdvsr2,Utills-BU	Light	57
Daniel,Jimmie	Rec Attendant	Parks	65
Fatuga,Adetokunbo Abiola	Civil Engrng Spec,Sr	Seattle Public Utilities	38
Griffith,Nicholas Erling	Lnwkr Aprn	Light	23
Guinasso,Joseph C	Fin Anlyst Supv	Finance	49
Hess, Denise	King County	King County	57
Jordan,Donald Edward	Executive2	Seattle Animal Shelter	49
McGill,Jayla J	Rec Attendant	Parks	66
Pham,Kien Trung	Maint Laborer	Seattle Public Utilities	53
Robel,Janet N	Admin Spec I	Law Department	65
Rudolph,Elisabeth R	Admin Spec II	Fire Department	50
Taylor,Frederick R	Laborer	Parks	67
Williams,Jeffrey D	Drainage&Wstwtr Coll Wkr Cl	Seattle Public Utilities	45
Yokoyama,Margaret Mary	Usher	Seattle Center	73
		Count	18
		Average Age	56

DEATH BENEFIT SYSTEM
For The Year Ended December 31, 2016

All active members and those retired members who so elect are covered by the Death Benefit System. The Death Benefit System is similar to a life insurance policy and pays \$2,000 to the beneficiary of an active or retired member.

The annual premium for each member is \$12, with the City matching this amount. Any additional funds needed to fund the Death Benefit System come from the undistributed earnings of the Retirement System.

There were 18 payouts for deaths in active service and 157 claims from retired employees - a total of 175 claims. This compares with 10 deaths in active service in 2015, and 142 claims from retired employees - a total of 152. The claims totaled \$280,000 in 2014 and \$212,500 in 2015.

Income from Active and Retired Employees:		\$ 153,698
Income from Employers:		
Seattle City Light	\$ 33,358	
General Fund	33,228	
Seattle Public Utilities	22,146	
Seattle Parks Department	15,933	
Transportation	13,374	
Library	9,732	
Administrative Services	10,806	
Seattle Center	5,334	
Planning and Development	6,126	
King County/Metro	3,264	
Employees' Retirement System	396	
Total from Employer Funds	\$ 153,698	
Total paid into Death Benefit Reserve	\$ 307,395	
<u>Less: Death Benefit Claims – 2015</u>	<u>\$ 165,300</u>	
Total 2015 Addition to Operating Fund Balance	\$ 142,095	

Benefit Calculation

In accordance with the Seattle Municipal Code, the retirement benefit is the higher of the results of the two formulas shown below:

Service Retirement Formula: (years of City service) x (yearly percentage factor) x (average of the highest 52 consecutive pay periods of pay). The maximum years of service used by the formula is 30.

Contribution-Based Formula (2 Times Match): The employee contribution plus interest multiplied by two, used to purchase a lifetime annuity.

These calculations determine the “straight” or unmodified benefit. There are retirement options that offer a lower benefit amount in exchange for different kinds of guaranteed payments. See the retirement handbook at www.seattle.gov/retirement for more information.

Note that there are two kinds of service used in the above calculations:

City service is the retirement-eligible hours you earn during your employment with the City. This includes all regular hours and excludes overtime. City service is used in the *Service Retirement Formula*.

Eligibility service is your City service together with any service you have earned from a system that has portability with SCERS. Portable systems include the cities of Spokane and Tacoma, and most systems operated by the Washington State Department of Retirement Systems. Eligibility service is used to determine the percentage factor for the service retirement formula.

The table below shows how the yearly percentage factor in the *Service Retirement Formula* is determined based on the number of years of retirement eligibility service credit and age at retirement.

Yearly Percentage Factors used in the Service Retirement Formula

Years of Retirement Eligibility Service Credit	Age at Retirement															Years of Retirement Eligibility Service Credit		
	Any	52	53	54	55	56	57	58	59	60	61	62	63	64	65			
30 or more	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	30 or more	
29		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	29	
28		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	28	
27		1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	27	
26		1.8	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	26	
25		1.7	1.8	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	25	
24		1.6	1.7	1.8	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	24	
23		1.5	1.6	1.7	1.8	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	23	
22		1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	22	
21		1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	21	
20		1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	20	
19								1.52	1.58	1.64	1.7	1.76	1.82	1.88	1.94	2.0	19	
18								1.52	1.58	1.64	1.7	1.76	1.82	1.88	1.94	2.0	18	
17								1.52	1.58	1.64	1.7	1.76	1.82	1.88	1.94	2.0	17	
16								1.52	1.58	1.64	1.7	1.76	1.82	1.88	1.94	2.0	16	
15								1.52	1.58	1.64	1.7	1.76	1.82	1.88	1.94	2.0	15	
14								1.52	1.58	1.64	1.7	1.76	1.82	1.88	1.94	2.0	14	
13								1.52	1.58	1.64	1.7	1.76	1.82	1.88	1.94	2.0	13	
12		Not Eligible To Retire							1.52	1.58	1.64	1.7	1.76	1.82	1.88	1.94	2.0	12
11								1.52	1.58	1.64	1.7	1.76	1.82	1.88	1.94	2.0	11	
10								1.52	1.58	1.64	1.7	1.76	1.82	1.88	1.94	2.0	10	
9													1.82	1.88	1.94	2.0	9	
8													1.82	1.88	1.94	2.0	8	
7													1.82	1.88	1.94	2.0	7	
6													1.82	1.88	1.94	2.0	6	
5													1.82	1.88	1.94	2.0	5	