

PENSION TRUST FUNDS OF THE CITY OF WICHITA, KANSAS



COMPREHENSIVE ANNUAL FINANCIAL REPORT

Fiscal Year Ended December 31, 2016



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WICHITA
DWIGHT D. EISENHOWER
NATIONAL AIRPORT

WICHITA RETIREMENT SYSTEMS

Police & Fire Retirement System of Wichita, Kansas

Wichita Employees' Retirement System

Wichita Employees' Retirement System Plan 3B

Pension Trust Funds of
the City of Wichita, Kansas

Comprehensive Annual Financial Report

For the Year Ended December 31, 2016



WICHITA RETIREMENT SYSTEMS

Police and Fire Retirement System of Wichita, Kansas

Wichita Employees' Retirement System

Wichita Employees' Retirement System Plan 3b

Prepared by the Pension Management Office

Department of Finance

455 N. Main Street, 12th floor

Wichita, Kansas 67202

(316) 268-4544

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WICHITA RETIREMENT SYSTEMS
COMPREHENSIVE ANNUAL FINANCIAL REPORT
For the year ended December 31, 2016

TABLE OF CONTENTS

| | Page |
|---|-------------|
| INTRODUCTORY SECTION | |
| Letter of Transmittal..... | i |
| Awards..... | v |
| Boards of Trustees..... | vii |
| Organization Chart..... | viii |
| Professional Consultants..... | ix |
| FINANCIAL SECTION | |
| Independent Auditor's Report | A-1 |
| Management Discussion and Analysis | A-3 |
| Basic Financial Statements | |
| Statement of Fiduciary Net Position..... | A-6 |
| Statement of Changes in Fiduciary Net Position..... | A-7 |
| Notes to the Financial Statements: | |
| Summary of Significant Accounting Policies..... | A-8 |
| Cash, Investments and Securities Lending..... | A-9 |
| Capital Assets..... | A-18 |
| Wichita Employees' Retirement System..... | A-19 |
| Plan Description..... | A-19 |
| Benefits Provided..... | A-19 |
| Deferred Retirement Option Plan (DROP) Provision..... | A-19 |
| Funding Policy..... | A-20 |
| Actuarial Assumptions..... | A-20 |
| Actuarial Rate of Return Assumption..... | A-20 |
| Discount Rate..... | A-21 |
| Net Pension Liability of the City..... | A-21 |
| Sensitivity Analysis..... | A-21 |
| Wichita Employees' Retirement System Plan 3b..... | A-21 |
| Police and Fire Retirement System of Wichita..... | A-22 |
| Plan Description..... | A-22 |
| Benefits Provided..... | A-22 |
| Backward Deferred Retirement Option Plan (DROP) Provision..... | A-22 |
| Funding Policy..... | A-23 |
| Actuarial Assumptions..... | A-23 |
| Actuarial Rate of Return Assumption and Discount Rate..... | A-23 |
| Net Pension Liability of the City..... | A-23 |
| Sensitivity Analysis..... | A-23 |
| Insurance..... | A-23 |
| Required Supplementary Information | |
| Schedule of Changes in the Employer's Net Pension Liability and Related Ratios: | |
| Wichita Employees' Retirement System..... | A-24 |
| Police and Fire Retirement System..... | A-26 |
| Schedule of Employer Contributions: | |
| Wichita Employees' Retirement System..... | A-28 |
| Police and Fire Retirement System..... | A-30 |
| Schedule of Investment Returns..... | A-32 |

WICHITA RETIREMENT SYSTEMS

COMPREHENSIVE ANNUAL FINANCIAL REPORT

For the year ended December 31, 2016

TABLE OF CONTENTS (CONTINUED)

FINANCIAL SECTION (CONTINUED)

| | Page |
|---|-------------|
| Supplementary Information | |
| Schedule of Administrative Expenses..... | A-33 |
| Schedule of Investment Expenses..... | A-34 |
| Schedule of Payments Made to Consultants Other Than Investment Advisors..... | A-34 |
| Independent Auditor's Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements in Accordance with Government Auditing Standards..... | A-35 |

INVESTMENT SECTION

| | |
|---|------|
| Investment Consultant's Report..... | B-1 |
| Investment Policy Summary..... | B-3 |
| Investment Performance..... | B-4 |
| Asset Allocation..... | B-5 |
| Ten Largest Equity Holdings..... | B-7 |
| Ten Largest Fixed Income Holdings..... | B-7 |
| Investment Summary by Type of Investment..... | B-8 |
| Investment Assets Under Management and Related Management Fees..... | B-9 |
| Schedule of Brokerage Commissions..... | B-10 |

ACTUARIAL SECTION

| | |
|--|------|
| Actuary's Certification Letter..... | C-1 |
| Wichita Employees' Retirement System..... | C-5 |
| Actuarial Cost Method..... | C-5 |
| Actuarial Assumptions Used for Valuations..... | C-5 |
| Actuarial Tables..... | C-8 |
| Active Member Valuation Data..... | C-8 |
| Retirants and Beneficiaries Added to and Removed from Rolls..... | C-9 |
| Solvency Test..... | C-9 |
| System Experience..... | C-10 |
| Schedule of Funding Progress..... | C-10 |
| Summary of Benefit Provisions..... | C-11 |
| Wichita Employees' Retirement System Plan 3 and Plan 3b..... | C-13 |
| Summary of Benefit Provisions..... | C-13 |
| Police and Fire Retirement System of Wichita, Kansas..... | C-14 |
| Actuarial Cost Method..... | C-14 |
| Actuarial Assumptions Used for Valuations..... | C-14 |
| Actuarial Tables..... | C-17 |
| Active Member Valuation Data..... | C-17 |
| Retirants and Beneficiaries Added to and Removed from Rolls..... | C-18 |
| Solvency Test..... | C-18 |
| System Experience..... | C-19 |
| Schedule of Funding Progress..... | C-19 |
| Summary of Benefit Provisions..... | C-20 |

WICHITA RETIREMENT SYSTEMS

COMPREHENSIVE ANNUAL FINANCIAL REPORT

For the year ended December 31, 2016

TABLE OF CONTENTS (CONTINUED)

| | Page |
|---|-------------|
| STATISTICAL SECTION | |
| Statistical Section Overview..... | D-1 |
| Changes in Fiduciary Net Position..... | D-2 |
| Wichita Employees' Retirement System..... | D-2 |
| Wichita Employees' Retirement System Plan 3b..... | D-4 |
| Police and Fire Retirement System..... | D-6 |
| Average Benefit Payments..... | D-8 |
| Wichita Employees' Retirement System..... | D-8 |
| Police and Fire Retirement System..... | D-10 |
| Retired Members by Type and Benefit Amount..... | D-12 |
| Wichita Employees' Retirement System..... | D-12 |
| Police and Fire Retirement System..... | D-12 |

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INTRODUCTORY SECTION



Department of Finance
Pension Management
City Hall – Twelfth Floor
455 North Main
Wichita, Kansas 67202

June 30, 2017

The Honorable Mayor and City Council
Police and Fire Retirement System of Wichita Board of Trustees
Wichita Employees' Retirement System Board of Trustees

We are pleased to submit the Comprehensive Annual Financial Report (CAFR) of the Wichita Retirement Systems (“WRS” or “Systems”); a single employer retirement system comprised of the Police and Fire Retirement System of Wichita, Kansas (PFRS), the Wichita Employees' Retirement System (WERS), and the Wichita Employees' Plan 3b for the year ended December 31, 2016. To the best of our knowledge and belief, the enclosed data is accurate in all material respects and is reported in a manner designed to present fairly the financial position and results of operations of the Systems.

Management assumes full responsibility for the completeness and reliability of the information contained in this report, based upon a comprehensive framework of internal control established for this purpose. Because the cost of internal control should not exceed anticipated benefits, the objective is to provide reasonable, rather than absolute, assurance that the financial statements are free of any material misstatements.

Kansas statutes require an annual audit of all funds of the City by independent certified public accountants. The certified public accounting firm of Allen, Gibbs & Houlik, L.C. issued an unmodified opinion on the financial statements of the Wichita Retirement Systems for the year ended December 31, 2016. The independent auditor's report begins on page A-1 in the Financial Section of this report.

Management's discussion and analysis (MD&A) immediately follows the independent auditor's report and provides a narrative introduction, overview and analysis of the financial statements. This transmittal letter is designed to complement the MD&A and should be read in conjunction with it.

Plan History

The WERS was established in 1948 to provide pension benefits to all civilian employees, their surviving spouses and beneficiaries. The PFRS was established in 1965 to provide pension benefits to commissioned police and fire officers, their surviving spouses and beneficiaries. The full-time employees of the City of Wichita participate in one of these two Systems unless the employee is provided an option to elect to participate in the International City Management Association.

In October 1999, the assets of the WRS' were combined into a single fund for investment purposes. Then, in October 2000, assets of WERS Plan 3 were separated from the combined WERS and PFRS funds for investment, custodial and participant record keeping purposes. Finally, in January 2004, WERS Plan 3 assets were liquidated and the proceeds were reinvested with the other assets of the WRS, which resulted in a combined single fund for investment purposes.

Plan Governance

A sixteen-member Board of Trustees oversees the WERS. The members include the City Manager or the City Manager's designee, the City Manager's appointee, seven members elected by WERS members, and seven members appointed by the City Council. A separate sixteen-member Board of Trustees oversees the PFRS. The members include the City Manager or the City Manager's designee, the Police Chief, the Fire Chief, three fire officers and three police officers elected by PFRS members of their respective departments and seven members appointed by the City Council. The Joint Investment Committee (JIC) is comprised of the President of each Board, two elected members from each Board, two City Council appointees from each Board and a City Manager's designee. The City Manager appoints a Pension Manager who manages staff to carry out the daily operations of the Retirement Systems.

System Funding and Financial Position

Funding is the process of setting aside resources for current and future use for the WRS defined benefit plans. The objective of the WRS is to meet funding requirements through contributions, expressed as a percent of active member payroll, which will remain approximately level from year to year and will not require significant increases in contribution rates affecting future generations of citizens in the absence of plan benefit improvements.

The annual actuarial valuations prepared by the WRS' actuary, Cavanaugh Macdonald Consulting, LLC, provide an indicator of the funded status of the Systems. As of December 31, 2016, the funded ratio of the PFRS was 94.0 percent and the funded ratio of the WERS was 92.9 percent. The funded ratio is the ratio of actuarial assets to actuarial liabilities. The actuarial liability is that portion of the present value of future benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and the actuarial value of assets at the same date is referred to as the unfunded actuarial liability (UAL), or surplus if the asset value exceeds the actuarial liability. The Systems' unfunded actuarial liability (or surplus) is amortized over a 20-year rolling period.

The funded ratios for the PFRS and WERS decreased by 0.7 and 0.9 percentage points, respectively. The funded ratio has declined over this period for various reasons, including actuarial experience changes and, more significantly, investment experience. However, the Systems' funded ratios remain strong, above 90% even though the impact of the investment returns have been below the assumed rate of return in recent years. The results of the actuarial valuation determine the City's contribution rate for the second calendar year following the valuation date. In 2016, employer contributions for the PFRS decreased from 21.3 percent to 18.8 percent of annual covered payroll, and employer contributions for the WERS decreased from 12.2 percent to 11.6 percent of annual covered payroll. Additional information regarding the financial condition and funding status of the pension trust funds can be found in the Financial and Actuarial Sections of this report.

Investments

The WERS Board of Trustees' investment authority is found in the City of Wichita's Municipal Code, Section 2.28.090. Investment authority for the PFRS Board of Trustees is contained in Section 12 of Charter Ordinance 215.

As of December 31, 2016, the fiduciary net position was \$1.17 billion, an increase of 2.7 percent from the December 31, 2015 Plan net position of \$1.14 billion. The investment return for the WRS' combined investment portfolio was 7.3 percent for the year ended December 31, 2016, trailing the WRS' investment target benchmark return of 8.5 percent for the same period. The investment return over the past five-year period was 9.20 percent, outperforming the benchmark return of 8.3 percent and the Systems' long-term actuarial target of 7.75 percent.

The WERS and PFRS Boards of Trustees have established an overall strategic asset allocation policy based upon the financial needs of the joint fund and the Boards' tolerance for volatility, or risk. The Boards utilize external investment managers providing both passive and active strategies. The portfolio is broadly diversified among equities, fixed income, real estate, commodities and timber, with additional diversification achieved in equities and fixed income through domestic and international allocations. With the assistance of the Systems' financial consultant, Callan Associates, Inc. and Pension Management staff, the Trustees continue to monitor the investment program and review the policy for future changes to the asset allocation, manager allocations and possible additional investment types. For more information on investment strategies and policies, safeguards on investments and a comparative analysis of investment results over time, please refer to the Investment Section of this report beginning on page B-1.

Major Initiatives and Significant Actions

Determination Letters: In August, 2016, WERS and PFRS Plans received favorable determination letters from the IRS. These letters confirm the Plans are qualified under Code Section 401(a). There are several benefits with a current determination letter. The IRS will allow the Plan to use the voluntary correction program or self-correction program. It reduces potential issues if the IRS audits the Plan. Also, the determination letters are helpful for purposes of some foreign investments (Form 8802) submissions.

Asset-Liability Study: In 2016, the Joint Investment Committee (JIC) conducted an Asset-Liability Study to determine whether asset classes should be added, removed or changed from the existing asset mix. The Boards' financial consultant assisted with asset modeling to define appropriate capital market and liability assumptions to create asset mix alternatives that help simulate financial conditions, define risk tolerance and identify the appropriate target mix for the portfolio. After a thorough review, the JIC made the following asset allocation changes: (1) eliminated the 3% allocation in the Treasury Inflation Protected Securities (TIPS) fund; (2) reduced the domestic equity exposure by 1%; (3) reduced fixed income exposure by 3%; (4) increased the cash position by 1%; (5) increased international equities by 4%; and (6) increased the real estate allocation by 2% in the portfolio. The implementation of the changes began in September, 2016, and will be completed as of December 31, 2017.

Strategic Plan and Investment Policy Changes: As a result of the Asset-Liability Study, both Boards adopted several changes to the Systems' Investment Policy which took effect in September 2016. The changes include the elimination of TIPS and a reduction of fixed income while increasing cash, equities and real estate allocations in the portfolio. Also, the investment manager benchmarks were changed for the large cap growth and real estate managers to better suit their asset classes. The international fixed income section was deleted since the focus is on global fixed income in the portfolio. In conjunction with the Investment Consultant, the JIC reviews the Investment Policy annually and recommends to the Boards any necessary changes.

Investment Consultant Request for Proposal (RFP): During the year, an RFP for Investment Consultant Services was completed. Upon final review, Callan Associates, Inc. continues to provide this service under a new contract. Callan performed an education workshop for the Board Trustees and Pension Staff. The workshop provided a basic understanding of the fiduciary role and responsibilities of trustees, described the investment management process and provided capital market theory along with characteristics of various asset classes. The course was beneficial for the Trustees and Staff.

Awards

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Wichita Retirement Systems (WRS) for its Comprehensive Annual Financial Report (CAFR) for the fiscal year ended December 31, 2015. This marks the seventeenth consecutive year that the Systems have achieved this prestigious award. In order to be awarded a Certificate of Achievement, a government entity must publish an easily readable and efficiently organized CAFR. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

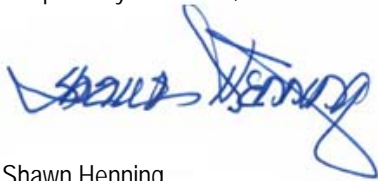
A Certificate of Achievement is valid for a period of one year only. The Systems' believe that this current CAFR continues to meet Certificate of Achievement Program requirements, and it will be submitted to the GFOA to determine its eligibility for another certificate.

In addition, the Wichita Retirement Systems also received the Public Pension Coordinating Council's (PPCC) Public Pension Standards Award for the fiscal year ended December 31, 2016 in recognition of meeting professional standards for pension plan design and administration, as set forth in the Public Pension Standards. This was the fourteenth consecutive year the System obtained this important award. This award is presented by the PPCC, a confederation of the National Association of State Retirement Administrators (NASRA), the National Conference on Public Employee Retirement Systems (NCPERS) and the National Council on Teacher Retirement (NCTR). The Systems' believe that its plan design and administration continued to meet the PPCC award criteria during 2016, and plans to apply for the Public Pension Standards Award.

Acknowledgments

This report was made possible through the combined efforts of Pension Management Staff and the Controller's Office. We wish to express our appreciation to all members of the Finance Department, and other City staff who assisted and contributed to its preparation.

Respectfully submitted,



Shawn Henning
Director of Finance



Pam Beim
Pension Manager



Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

Wichita Retirement Systems
Kansas

For its Comprehensive Annual
Financial Report
for the *Fiscal Year Ended*

December 31, 2015

Executive Director/CEO



Public Pension Coordinating Council

***Public Pension Standards Award
For Funding and Administration
2016***

Presented to

Wichita Retirement Systems

In recognition of meeting professional standards for
plan funding and administration as
set forth in the Public Pension Standards.

Presented by the Public Pension Coordinating Council, a confederation of

National Association of State Retirement Administrators (NASRA)
National Conference on Public Employee Retirement Systems (NCPERS)
National Council on Teacher Retirement (NCTR)

A handwritten signature in cursive script that reads "Alan H. Winkle".

Alan H. Winkle
Program Administrator

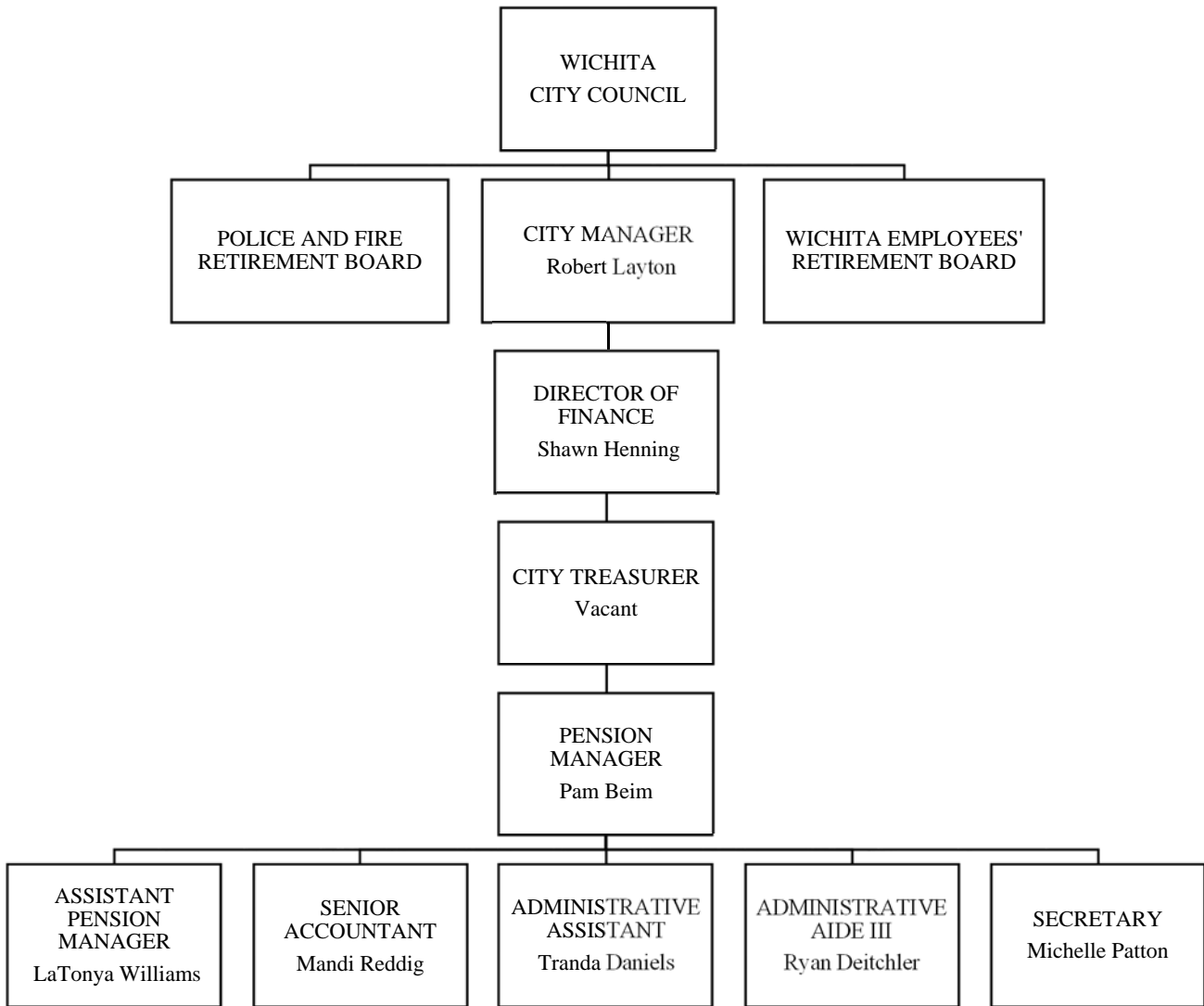


**WICHITA EMPLOYEES' RETIREMENT SYSTEM
BOARD OF TRUSTEES**

| | |
|---------------------------|-----------------------------|
| Sean Seamster (President) | Elected |
| Mark Hall (1st V.P.) | Elected |
| Melinda Walker (2nd V.P.) | Elected |
| Mike Hastings | Appointed by Council Member |
| Troy Arment | Appointed by Council Member |
| Colleen Didier | Appointed by Council Member |
| Jane Hammil | Appointed by Council Member |
| Stephanie Mankins | Appointed by Council Member |
| Vacant | Appointed by Council Member |
| Vacant | Appointed by Mayor |
| Shawn Henning | City Manager Appointee |
| Jeff Kennedy | City Manager Designee |
| Maria Bias | Elected |
| LaDonna Lawrenz | Elected |
| Mark Manning | Elected |
| William Perkins | Elected |

**POLICE AND FIRE RETIREMENT SYSTEM
BOARD OF TRUSTEES**

| | |
|----------------------------|-----------------------------|
| Jason Jones (President) | Fire Elected |
| Lance Oldridge (1st V.P.) | Police Elected |
| Jeremy Spexarth (2nd V.P.) | Fire Elected |
| David Cain | Appointed by Council Member |
| Robert Decker | Appointed by Council Member |
| Kenneth Kriz | Appointed by Council Member |
| Patrick Pruitt | Appointed by Council Member |
| Vacant | Appointed by Council Member |
| Vacant | Appointed by Council Member |
| Paul O'Mara | Appointed by Mayor |
| Shawn Henning | City Manager Designee |
| Ronald Blackwell | Fire Chief |
| Merle Bumgarner | Fire Elected |
| Gordon Ramsay | Police Chief |
| Scott Heimerman | Police Elected |
| John Ryan | Police Elected |



ACTUARY

Cavanaugh Macdonald Consulting, LLC
3906 Raynor Pkwy, Suite 106
Bellevue, Nebraska 68123

CUSTODY INSTITUTION

State Street Bank and Trust Company
801 Pennsylvania Ave
Kansas City, MO 64105

DEFINED CONTRIBUTION PARTICIPANT ACCOUNTING

Northeast Retirement Services
12 Gill Street, Suite 2600
Woburn, Massachusetts 01801

FINANCIAL CONSULTANT

Callan Associates, Inc.
1660 Wynkoop Street, Suite 950
Denver, Colorado 80202

INDEPENDENT AUDITORS

Allen, Gibbs & Houlik, L.C.
Epic Center, 301 N. Main Street, Suite 1700
Wichita, Kansas 67202

LEGAL SERVICES

City of Wichita, Law Department
455 N. Main, 13th Floor
Wichita, Kansas 67202

LEGAL SERVICES

Ice Miller, L.L.P.
One American Square, Suite 3100
Indianapolis, Indiana 46282

PARTICIPANT EDUCATION

NestEgg Consulting, Inc.
125 N. Market Street, Suite 1050
Wichita, Kansas 67202

A list of professional investment managers and their fees are presented on page B-9. A schedule of brokerage commissions is presented on page B-10.

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FINANCIAL SECTION

INDEPENDENT AUDITOR'S REPORT

The Boards of Trustees
Wichita Retirement Systems
Wichita, Kansas

Report on the Financial Statements

We have audited the accompanying financial statements of the Wichita Retirement Systems of the City of Wichita, Kansas (the Systems), and for the year ended December 31, 2016, and the related notes to the financial statements, which collectively comprise the Systems' basic financial statements as listed in the table of contents.

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.

Auditor's Responsibility

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

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

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Systems as of December 31, 2016, and the changes in the Systems' financial position for the year then ended, in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As discussed in Note 2 to the financial statements, in 2016, the Systems adopted GASB Statement No. 72, Fair Value Measurement and Application. Our opinion is not modified with respect to this matter.

Report on Summarized Comparative Information

We have previously audited the Systems' 2015 financial statements, and we expressed an unmodified audit opinion on those audited financial statements in our report dated June 27, 2016. In our opinion, the summarized comparative information presented herein as of and for the year ended December 31, 2015, is consistent, in all material respects, with the audited financial statements from which it has been derived.

Other Matters

Required Supplementary Information

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

Supplementary and Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Systems' basic financial statements. The accompanying supporting schedules on pages A-33 and A-34, and the introductory, investment, actuarial, and statistical sections as listed in the table of contents are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The supporting schedules on pages A-33 and A-34 are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, such information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

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

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated June 28, 2017 on our consideration of the Systems' internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Systems' internal control over financial reporting and compliance.

Allen, Gibbs & Houlik, L.C.
CERTIFIED PUBLIC ACCOUNTANTS

June 28, 2017
Wichita, Kansas

This management discussion and analysis provides an overview and analysis of the Wichita Retirement Systems' (WRS) financial activities and performance for the fiscal year ended December 31, 2016. The management discussion and analysis is presented in conjunction with the transmittal letter at the front of this report and the WRS financial statements, which follow this section.

OVERVIEW OF THE FINANCIAL STATEMENTS

The two basic financial statements of the WRS are the Statement of Fiduciary Net Position and the Statement of Changes in Fiduciary Net Position which may be found on pages A-6 and A-7. The statements are prepared in conformity with accounting principles generally accepted in the United States.

The Statement of Fiduciary Net Position is presented for the pension trust funds as of December 31, 2016, with combined total comparative information as of December 31, 2015. The Statement of Fiduciary Net Position presents information on all of the Systems' assets and liabilities, with the difference between the two reported as net position restricted for pensions. The statement is a snapshot of the financial position of the Systems at the close of the fiscal year. The Statement of Changes in Fiduciary Net Position is presented for the pension trust funds for the year ended December 31, 2016, with combined total comparative information for the year ended December 31, 2015. This statement, presented on page A-7, presents information showing how the Systems' net position changed during the fiscal year. Notes to the Financial Statements provide additional information, which is not included in the statements themselves, but is essential for a full understanding of the financial statements.

Required Supplementary Information consists of schedules and related notes concerning significant actuarial information and assumptions. Beginning on page A-24, these schedules and notes emphasize the long-term nature of pension plans and show the progress of each system in accumulating sufficient assets to pay future benefits.

- The Schedules of Changes in the Employer's Net Pension Liability and Related Ratios presents detailed information about the pension liabilities for which the pension plans' assets are held and managed. The schedules are intended to assist financial statement users in understanding the magnitude of the pension liability and the degree to which net position restricted for pensions is sufficient to cover the liability for each plan.
- The Schedules of Employer Contributions show the amount of actuarially determined required contributions relative to the actual contributions made during the year. These schedules also present covered payroll and contributions as a percentage of covered payroll to provide an economic context for the amounts of contributions reported for each plan.
- The Schedule of Investment Returns shows the money-weighted rate of return on investments, net of investment expense. The money-weighted rate of return is a method for calculating investment performance on pension investments that adjusts for the changing amounts actually invested.

The Supplementary Information includes a Schedule of Administrative Expenses, a Schedule of Investment Expenses and a Schedule of Payments to Consultants Other Than Investment Advisors to show detail of the administrative and investment costs to operate the Systems.

FINANCIAL STATEMENT ANALYSIS

Fiduciary Net Position. Total fiduciary net position increased by \$30.2 million during the 2016 fiscal year. This change primarily consisted of a \$34.0 million increase in cash and investments, excluding securities lending investments, mostly due to the net appreciation in the fair value of investment holdings. The investment return was 7.30% for the year ended December 31, 2016. Investment returns by asset class were: domestic equity 10.81%, international equity 4.30%, domestic fixed income 3.45%, real estate 7.60%, timber 1.25% and commodities 15.89%.

As of December 31, 2016, total securities lending obligations decreased by \$41.0 million, as compared to December 31, 2015. Several factors influence the amount of securities lent at any point in time, including the demand for the securities, the negotiated rebate rate and overall market volatility.

Comparative summary financial statements for the years ended December 31, 2016 and 2015 are presented in the accompanying tables:

| Statement of Fiduciary Net Position | | | |
|---|-------------------------|-------------------------|------------------------|
| As of December 31, | | | |
| | 2016 | 2015 | Increase (Decrease) |
| ASSETS | | | |
| Total cash and investments | \$ 1,178,926,022 | \$ 1,144,939,614 | \$ 33,986,408 |
| Total receivables | 49,413,481 | 47,044,463 | 2,369,018 |
| Investment in securities lending collateral | 49,160,155 | 90,116,534 | (40,956,379) |
| Total assets | <u>1,277,499,658</u> | <u>1,282,100,611</u> | <u>(4,600,953)</u> |
| LIABILITIES | | | |
| Accounts payable and accrued expenses | 1,860,590 | 1,316,731 | 543,859 |
| Investment purchases pending | 55,537,979 | 49,927,856 | 5,610,123 |
| Securities lending obligations | 49,160,155 | 90,116,534 | (40,956,379) |
| Total liabilities | <u>106,558,724</u> | <u>141,361,121</u> | <u>(34,802,397)</u> |
| FIDUCIARY NET POSITION | <u>\$ 1,170,940,934</u> | <u>\$ 1,140,739,490</u> | <u>\$ 30,201,444</u> |

| Statement of Changes in Fiduciary Net Position | | | |
|---|-------------------------|-------------------------|------------------------|
| For the year ended December 31, | | | |
| | 2016 | 2015 | Increase (Decrease) |
| ADDITIONS | | | |
| Contributions | \$ 30,357,965 | \$ 31,553,297 | \$ (1,195,332) |
| Net investment income (loss) | 76,326,237 | (231,071) | 76,557,308 |
| Reclassifications due to participant conversion | 244,793 | 465,171 | (220,378) |
| Total additions | <u>106,928,995</u> | <u>31,787,397</u> | <u>75,141,598</u> |
| DEDUCTIONS | | | |
| Pension benefits | 73,717,987 | 71,865,169 | 1,852,818 |
| Pension administration | 1,171,366 | 1,042,093 | 129,273 |
| Depreciation | - | 108,066 | (108,066) |
| Employee contributions refunded | 1,593,405 | 2,048,179 | (454,774) |
| Reclassifications due to participant conversion | 244,793 | 465,171 | (220,378) |
| Total deductions | <u>76,727,551</u> | <u>75,528,678</u> | <u>1,198,873</u> |
| Net increase (decrease) in net position | 30,201,444 | (43,741,281) | 73,942,725 |
| Fiduciary net position, beginning | 1,140,739,490 | 1,184,480,771 | (43,741,281) |
| Fiduciary net position, ending | <u>\$ 1,170,940,934</u> | <u>\$ 1,140,739,490</u> | <u>\$ 30,201,444</u> |

Changes in Fiduciary Net Position. Additions to fiduciary net position that are needed to finance Plan benefit obligations come primarily from employer and employee contributions and net earnings on investments. For the year ended December 31, 2016, total additions were \$106.9 million, which is a \$75.1 million increase from the 2015 total additions of \$31.8 million. Employer and employee contributions remained consistent with amounts reported in 2015. However, net investment income increased by \$76.6 million from the prior year.

Deductions from fiduciary net position are consistent with characteristics of a mature pension system. Pension benefits increased from \$71.9 million in 2015 to \$73.7 million in 2016, or approximately \$1.8 million or 2.6%. This amount includes DROP and Back DROP payments, which were \$6.1 million or 5.6% lower than 2015 levels.



CONTACTING THE WICHITA RETIREMENT SYSTEM

This financial report is designed to provide a general overview of the WRS finances for individuals with such an interest. Additional information is provided within the Notes to the Financial Statements. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Pension Management Office, City of Wichita, 455 N. Main St., 12th Floor Wichita, KS 67202.

WICHITA RETIREMENT SYSTEMS
STATEMENT OF FIDUCIARY NET POSITION

December 31, 2016
(with comparative totals as of December 31, 2015)

| | Police and Fire Retirement System | Employees' Retirement System | Employees' Retirement Plan 3b | Totals | |
|--|---|------------------------------------|-------------------------------------|-------------------------|-------------------------|
| | | | | 2016 | 2015 |
| ASSETS | | | | | |
| Cash and temporary investments | \$ 683,167 | \$ 491,778 | \$ 15,472 | \$ 1,190,417 | \$ 683,585 |
| Receivables: | | | | | |
| Investment sales pending | 24,401,834 | 21,865,495 | 281,989 | 46,549,318 | 44,116,121 |
| Interest and dividends | 1,140,498 | 1,021,954 | 13,180 | 2,175,632 | 2,541,316 |
| Other receivables | 362,058 | 324,815 | 1,658 | 688,531 | 387,026 |
| Total receivables | <u>25,904,390</u> | <u>23,212,264</u> | <u>296,827</u> | <u>49,413,481</u> | <u>47,044,463</u> |
| Investments, at fair value: | | | | | |
| Government short-term investment fund | 16,248,037 | 14,559,208 | 187,763 | 30,995,008 | 22,752,778 |
| Government securities: long-term | 18,137,562 | 16,252,334 | 88,929 | 34,478,825 | 41,202,155 |
| Corporate debt instruments | 38,711,734 | 34,688,014 | 189,805 | 73,589,553 | 95,191,316 |
| Mortgage and asset-backed securities | 25,551,318 | 22,895,500 | 125,279 | 48,572,097 | 68,046,268 |
| Global fixed income | 23,964,328 | 21,473,463 | 117,498 | 45,555,289 | 48,382,199 |
| Corporate stocks: | | | | | |
| Domestic equities | 193,389,737 | 173,288,701 | 948,196 | 367,626,634 | 348,082,249 |
| International equities | 62,003,567 | 55,558,884 | 304,006 | 117,866,457 | 104,020,735 |
| Real estate | 39,896,171 | 35,749,341 | 195,612 | 75,841,124 | 66,912,041 |
| Timber | 28,535,760 | 25,569,739 | 139,912 | 54,245,411 | 40,436,396 |
| Value of interest in pooled funds: | | | | | |
| Target date funds | - | - | 3,999,378 | 3,999,378 | 3,444,100 |
| Commodities | 18,306,352 | 16,403,579 | 89,757 | 34,799,688 | 30,027,430 |
| International fixed income | 1,174,811 | 1,052,701 | 5,760 | 2,233,272 | 6,189,284 |
| High-yield fixed income | 2,936,841 | 2,631,583 | 14,399 | 5,582,823 | 8,822,957 |
| U.S. TIPS | - | - | - | - | 33,110,153 |
| Domestic equities | 52,430,936 | 46,981,237 | 257,071 | 99,669,244 | 88,966,126 |
| International equities | 96,099,110 | 86,110,515 | 471,177 | 182,680,802 | 138,669,842 |
| Securities lending short-term collateral investment pool | 25,770,474 | 23,091,876 | 297,805 | 49,160,155 | 90,116,534 |
| Total investments | <u>643,156,738</u> | <u>576,306,675</u> | <u>7,432,347</u> | <u>1,226,895,760</u> | <u>1,234,372,563</u> |
| Capital assets: | | | | | |
| Pension software | 448,990 | 833,838 | - | 1,282,828 | 1,295,837 |
| Accumulated depreciation | (448,990) | (833,838) | - | (1,282,828) | (1,295,837) |
| Capital assets, net of depreciation | <u>-</u> | <u>-</u> | <u>-</u> | <u>-</u> | <u>-</u> |
| Total assets | <u>669,744,295</u> | <u>600,010,717</u> | <u>7,744,646</u> | <u>1,277,499,658</u> | <u>1,282,100,611</u> |
| LIABILITIES | | | | | |
| Accounts payable and accrued payroll | 812,718 | 1,044,176 | 3,696 | 1,860,590 | 1,316,731 |
| Investment purchases pending | 29,113,822 | 26,087,716 | 336,441 | 55,537,979 | 49,927,856 |
| Securities lending obligations | 25,770,474 | 23,091,876 | 297,805 | 49,160,155 | 90,116,534 |
| Total liabilities | <u>55,697,014</u> | <u>50,223,768</u> | <u>637,942</u> | <u>106,558,724</u> | <u>141,361,121</u> |
| NET POSITION | | | | | |
| Restricted for pensions | <u>\$ 614,047,281</u> | <u>\$ 549,786,949</u> | <u>\$ 7,106,704</u> | <u>\$ 1,170,940,934</u> | <u>\$ 1,140,739,490</u> |

The accompanying notes to the financial statements are an integral part of this statement.

WICHITA RETIREMENT SYSTEMS
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

For the year ended December 31, 2016
(with comparative totals for the year ended December 31, 2015)

| | Police and Fire Retirement System | Employees' Retirement System | Employees' Retirement Plan 3b | Totals | |
|---|---|------------------------------------|-------------------------------------|-------------------------|-------------------------|
| | | | | 2016 | 2015 |
| ADDITIONS | | | | | |
| Contributions: | | | | | |
| Employer | \$ 12,585,895 | \$ 8,946,064 | \$ 203,520 | \$ 21,735,491 | \$ 23,185,891 |
| Employee | 4,776,958 | 3,642,007 | 203,521 | 8,622,474 | 8,367,406 |
| Total contributions | <u>17,362,853</u> | <u>12,588,071</u> | <u>407,041</u> | <u>30,357,965</u> | <u>31,553,297</u> |
| Investment income: | | | | | |
| From investing activities: | | | | | |
| Net appreciation (depreciation) in the fair value of investments | 30,993,914 | 27,858,581 | 437,473 | 59,289,968 | (20,027,763) |
| Interest | 4,802,604 | 4,384,980 | 19,116 | 9,206,700 | 8,960,146 |
| Dividends | 6,999,436 | 6,326,748 | 22,398 | 13,348,582 | 16,612,039 |
| Commission recapture | 16,368 | 14,817 | 77 | 31,262 | 25,193 |
| Total investing activity income | <u>42,812,322</u> | <u>38,585,126</u> | <u>479,064</u> | <u>81,876,512</u> | <u>5,569,615</u> |
| Less investment expense | 3,152,574 | 2,847,197 | 12,373 | 6,012,144 | 6,104,738 |
| Net income (loss) from investing activities | <u>39,659,748</u> | <u>35,737,929</u> | <u>466,691</u> | <u>75,864,368</u> | <u>(535,123)</u> |
| From securities lending activities: | | | | | |
| Securities lending income | 367,281 | 332,088 | 1,936 | 701,305 | 302,802 |
| Less securities lending expense (income): | | | | | |
| Borrower rebates | 31,305 | 28,120 | 366 | 59,791 | (112,387) |
| Management fees | 94,084 | 85,117 | 444 | 179,645 | 111,137 |
| Total securities lending expense (income) | <u>125,389</u> | <u>113,237</u> | <u>810</u> | <u>239,436</u> | <u>(1,250)</u> |
| Net income from securities lending activities | <u>241,892</u> | <u>218,851</u> | <u>1,126</u> | <u>461,869</u> | <u>304,052</u> |
| Total net investment income (loss) | <u>39,901,640</u> | <u>35,956,780</u> | <u>467,817</u> | <u>76,326,237</u> | <u>(231,071)</u> |
| Reclassifications due to participant conversion | - | - | 244,793 | 244,793 | 465,171 |
| Total additions | <u>57,264,493</u> | <u>48,544,851</u> | <u>1,119,651</u> | <u>106,928,995</u> | <u>31,787,397</u> |
| DEDUCTIONS | | | | | |
| Pension benefits | 35,256,536 | 38,461,451 | - | 73,717,987 | 71,865,169 |
| Pension administration | 548,171 | 615,829 | 7,366 | 1,171,366 | 1,042,093 |
| Depreciation | - | - | - | - | 108,066 |
| Employee contributions refunded | 295,731 | 683,332 | 614,342 | 1,593,405 | 2,048,179 |
| Reclassifications due to participant conversion | - | 244,793 | - | 244,793 | 465,171 |
| Total deductions | <u>36,100,438</u> | <u>40,005,405</u> | <u>621,708</u> | <u>76,727,551</u> | <u>75,528,678</u> |
| Net increase (decrease) in net position | 21,164,055 | 8,539,446 | 497,943 | 30,201,444 | (43,741,281) |
| Net position, beginning | 592,883,226 | 541,247,503 | 6,608,761 | 1,140,739,490 | 1,184,480,771 |
| Net position, ending | <u>\$ 614,047,281</u> | <u>\$ 549,786,949</u> | <u>\$ 7,106,704</u> | <u>\$ 1,170,940,934</u> | <u>\$ 1,140,739,490</u> |

The accompanying notes to the financial statements are an integral part of this statement.

1. Summary of Significant Accounting Policies**A. Reporting Entity**

The Wichita Employees' Retirement System, the Wichita Employees' Retirement System Plan 3b and the Police and Fire Retirement System of Wichita are reported as pension trust funds of the City of Wichita, Kansas and its component units (the reporting entity). The plans consist of two single-employer defined benefit pension plans and a single-employer defined contribution plan, covering all full-time employees.

The defined benefit plans include the Wichita Employees' Retirement System (WERS) and the Police and Fire Retirement System (PFRS). A separate Board of Trustees administers each System. The single-employer defined contribution plan consists of the Wichita Employees' Retirement System Plan 3b, which is also administered by the Wichita Employees' Retirement System Board of Trustees.

The WERS Board of Trustees is comprised of 16 members, including the City Manager or the City Manager's designee, one employee appointed by the City Manager, seven members appointed by the City Council and seven employees elected by the WERS employee members. The PFRS Board of Trustees is comprised of 16 members, including the City Manager or the City Manager's designee, the Chief of the Police Department, the Chief of the Fire Department, seven members appointed by the City Council, three fire officers elected by PFRS employee members in the Fire Department or the Airport and three police officers elected by PFRS employee members in the Police Department.

B. Measurement Focus and Basis of Accounting

The Wichita Employees' Retirement System, the Wichita Employees' Retirement System Plan 3b and the Police and Fire Retirement System are reported as pension trust funds of the City of Wichita, Kansas in the City's financial statements using the economic resources measurement focus and the accrual basis of accounting. Employee and employer contributions are recognized as revenues in the period in which employee services are performed. Benefits and refunds are recognized when due and payable in accordance with the terms of each plan.

C. Investments

Investments are reported at fair value. The Systems invest in real estate through real estate investment trusts, timber through limited partnerships, commodities, Treasury strips and various asset-backed securities, such as collateralized mortgage obligations and credit card trusts. Short-term investments are reported at cost plus accrued interest, which approximates fair value. Investments traded on national or international exchanges are valued at the last trade price of the day. If no close price exists, then a bid price is used. Mortgages are valued on the basis of future principal and interest payments, and are discounted at prevailing interest rates for similar investments. The fair value of real estate and timber investments are estimated using the net asset value of the shares owned in each fund. Investments that do not have an established market are reported at their estimated fair value.

D. Capital Assets

Capital assets include hardware and software. Capital assets are defined as assets with an initial individual minimum cost of \$5,000. Capital assets are valued at historical cost or estimated historical cost (if actual historical cost is not available). The costs of normal maintenance and repairs that do not add to the value of the asset or materially extend the life of an asset are not capitalized. Major outlays for capital assets and improvements are capitalized as projects are constructed. Capital assets are depreciated using the straight-line method over useful lives of one to thirty-three years for office equipment and seven to twenty years for data processing software.

E. Management of Plan Assets

The Boards of Trustees of the Systems have contractual arrangements with independent money managers for investment of the assets of the Systems. The firms have been granted discretionary authority concerning purchases and sales of investments within guidelines established by City Ordinances and the Strategic Plan and Investment Policies adopted by the Boards of Trustees. The Boards of Trustees of the Systems also have contractual arrangements with independent firms which monitor the investment decisions of the Systems' investment managers.

F. Estimates

Preparation of financial statements in conformity with GAAP requires making estimates and assumptions that affect: (1) the reported amounts of assets and liabilities, (2) disclosures such as contingencies and (3) the reported amounts of revenues and expenses included in the financial statements. Actual results could differ from those estimates. Some of the more significant estimates include the valuation of certain investments described in the Notes to the Financial Statements and the actuarial assumptions used in calculating the total pension liability and net pension liability.

G. Prior Year Comparative Information

The basic financial statements include certain prior year comparative information that is summarized in total, but not at the level of detail required for a presentation in conformity with generally accepted accounting principles. Accordingly, such information should be read in conjunction with the Systems' financial statements for the year ended December 31, 2015, from which the summarized information has been derived.

2. Cash, Investments and Securities Lending

City Ordinance (49-036; Section 2.28.090) authorizes the Wichita Employees' Retirement System and City Charter Ordinance (215; Section 12) authorizes the Police and Fire Retirement System to invest trust fund assets in accordance with the prudent person rule, subject to the following limitations: (1) The proportion of funds invested in corporate preferred and common stock shall not exceed 70%; and (2) the proportion of funds invested in foreign securities shall not exceed 35%. Additionally, the Systems are not permitted to invest directly or indirectly in any:

1. Real estate, except in certain pooled arrangements with the amount of such investment not to exceed 10% of the Fund;
2. Private equity, except in a commingled fund-of-funds vehicle operated by a registered investment advisor or a bank with the amount of such investment not to exceed 10% of the Fund;
3. Timber, except in a commingled fund vehicle operated by a registered investment advisor or a bank. The amount of such investment shall not exceed 10% of the Fund;
4. Mortgages secured by real estate, except insured mortgages under Titles 203, 207, 220 and 221 of the Federal Housing Act;
5. Oil and gas leases or royalties; or
6. Commodities (including, but not limited to, wheat, gold, gasoline, options, or financial futures); provided however, that the restriction on investments contained in this paragraph shall not apply to funds which are invested in a mutual fund, separate account or commingled fund operated by a registered investment advisor or insurance company.

With the exception of the \$1,190,417 held in the City's pooled funds, as of December 31, 2016, all of the deposits and investments of the Wichita Employees' and Police and Fire Retirement Systems are held in a joint investment fund that is invested by outside money managers and are held under a custodial agreement. The Pension Boards have adopted the Strategic Plan and Investment Policies which set forth in detail the asset allocation for the fund and restrictions applicable to specific investment types to mitigate risk. The policies permit investment in six asset types: domestic equities, international equities, fixed income, real estate, timber and commodities.

The investments of the Wichita Retirement Systems (WRS) on December 31, 2016 are listed in the accompanying table.

The pension funds invest in various asset-backed securities such as collateralized mortgage obligations (CMOs) and credit card trusts to maximize yields and reduce the impact of interest rate changes. These securities are based on cash flows from principal and interest payments on the underlying assets. For example, CMOs break up the cash flows from mortgages into categories with defined risk and return characteristics called tranches. The tranches are differentiated by when the principal

| Type of Investment | Fair Value |
|---|------------------|
| Government short-term investment fund | \$ 30,995,008 |
| Government securities: long-term | 34,478,825 |
| Corporate debt instruments | 73,589,553 |
| Mortgage and asset-backed securities | 48,572,097 |
| Global fixed income | 45,555,289 |
| Corporate stocks: domestic common | 367,626,634 |
| Corporate stocks: international common | 117,866,457 |
| Real estate | 75,841,124 |
| Timber | 54,245,411 |
| Value of interest in pooled funds: target date funds | 3,999,378 |
| Value of interest in pooled funds: commodities | 34,799,688 |
| Value of interest in pooled funds: international fixed income | 2,233,272 |
| Value of interest in pooled funds: high-yield fixed income | 5,582,823 |
| Value of interest in pooled funds: domestic equities | 99,669,244 |
| Value of interest in pooled funds: international equities | 182,680,802 |
| Securities lending short-term collateral investment pool | 49,160,155 |
| Total investments | \$ 1,226,895,760 |

payments are received from the mortgage pool. Changes in interest and mortgage prepayment rates may affect the amount and timing of cash flows, which would also affect the reported estimated fair values. The pension funds utilize a combination of asset-backed securities, which vary in their degree of volatility. Although considerable variability is inherent in such estimates, management believes the estimated fair values are reasonable estimates.

The pension funds also invest in real estate through real estate investment trusts (REIT'S). The fair values of these investments are estimated using the net asset value of the Systems' shares owned in each trust. Market conditions have had an impact on the estimated fair value of real estate investments. Restrictions on the availability of real estate financing, as well as economic uncertainties, have affected the volume of purchase and sale transactions. As a result, the estimates and assumptions used in determining the fair values of the real estate investments are inherently subject to uncertainty.

Fair Value Measurement: Effective January 1, 2016, the Systems implemented GASB statement number 72, Fair Value Measurement and Application. This statement is designed to enhance comparability of financial statements among governments by requiring consistent definitions of fair value and accepted valuation techniques in the measurement of fair value. It also provides additional disclosure to provide information about the impact of fair value measurements on financial position.

As a retirement defined benefit pension plan, the Systems hold significant amounts of investments that are measured at fair value on a recurring basis. The framework for measuring fair value provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices for identical assets in active markets that can be assessed at the measurement date (Level 1) and the lowest priority to unobservable inputs (Level 3).

The three levels of the fair value hierarchy under GASB 72 are described as follows:

- Level 1 – Inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that a government can access at the measurement date.
- Level 2 – Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of assets or liabilities.

- Level 3 – Unobservable inputs supported by little or no market activity and are significant to the fair value of the assets or liabilities.

Specific investments that are measured using the net asset value per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. Such investments are identified as Net Asset Value (NAV).

The plan categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The fair value measurements for the investments of the Wichita Retirement Systems (WRS) on December 31, 2016 are listed in the accompanying table.

| | 12/31/2016 | Level 1 Inputs | Level 2 Inputs | Level 3 Inputs |
|--|-------------------------|-----------------------|-----------------------|----------------------|
| Investments by fair value level | | | | |
| Cash equivalents: | | | | |
| STIF-type instruments | \$ 29,552,581 | \$ - | \$ 29,552,581 | \$ - |
| Foreign currency | 1,097,129 | 1,097,129 | - | - |
| Total cash equivalents | <u>30,649,710</u> | <u>1,097,129</u> | <u>29,552,581</u> | <u>-</u> |
| Equities: | | | | |
| Common stock | 465,300,294 | 465,300,294 | - | - |
| Common stock unit | 705,158 | 705,158 | - | - |
| Depository receipts | 9,637,054 | 9,637,054 | - | - |
| Lmtd partnership units | 71,405,551 | 1,305,198 | - | 70,100,353 |
| Mutual funds | 222,090,795 | - | 222,090,795 | - |
| Preferred stock | 1,599,935 | 1,599,935 | - | - |
| Real estate investment trust | 32,421,241 | 6,958,738 | - | 25,462,503 |
| Total equities | <u>803,160,028</u> | <u>485,506,377</u> | <u>222,090,795</u> | <u>95,562,856</u> |
| Fixed Income: | | | | |
| Auto loan receivable | 2,608,369 | - | 2,496,516 | 111,853 |
| CMO | 17,263,134 | - | 17,263,134 | - |
| Corporate bonds | 86,013,188 | - | 86,013,188 | - |
| FHLMC | 9,206,886 | - | 9,206,886 | - |
| FNMA | 19,989,307 | - | 19,989,307 | - |
| GNMA I | 1,361,548 | - | 1,361,548 | - |
| GNMA II | 6,814,824 | - | 6,814,824 | - |
| Government issues | 52,530,552 | - | 52,530,552 | - |
| Municipals | 503,694 | - | 503,694 | - |
| Other asset-backed | 5,589,011 | - | 5,589,011 | - |
| Total fixed income | <u>201,880,513</u> | <u>-</u> | <u>201,768,660</u> | <u>111,853</u> |
| Total investments by fair value level | <u>1,035,690,251</u> | <u>\$ 486,603,506</u> | <u>\$ 453,412,036</u> | <u>\$ 95,674,709</u> |
| Investments measured at the net asset value (NAV) | | | | |
| Mutual funds | 46,552,884 | | | |
| Non-security asset-stock | 60,649,590 | | | |
| Real estate investment trust | 34,523,679 | | | |
| Total investments measured at NAV | <u>141,726,153</u> | | | |
| Total investments measured at fair value | <u>\$ 1,177,416,404</u> | | | |

| | 12/31/2016 | Level 1 Inputs | Level 2 Inputs | Level 3 Inputs |
|---|------------------|----------------|----------------|----------------|
| Investments derivative instruments | | | | |
| Credit default swaps, net | \$ (36,122) | \$ - | \$ (36,122) | \$ - |
| Interest rate swaps, net | 333,076 | - | 333,076 | - |
| FX forwards | (4,920) | (4,920) | - | - |
| Foreign currency options | (25,943) | - | (25,943) | - |
| Futures options | (30,538) | (30,538) | - | - |
| Fixed options - calls | 83,648 | 83,648 | - | - |
| Total investment derivative instruments | \$ 319,201 | \$ 48,190 | \$ 271,011 | \$ - |
| Total investments | \$ 1,177,735,605 | | | |

Debt, equity and other securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities.

Equity securities classified as Level 2 of the fair value hierarchy are traded on inactive markets or valued by reference to similar instruments using marked based-factors, such as credit, liquidity and interest rate conditions, and issuer-specific factors, such as creditworthiness of the issuer and likelihood of full repayment at maturity. Fixed income securities classified as Level 2 of the fair value hierarchy are valued using a matrix pricing technique. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices.

Equity securities classified as Level 3 of the fair value hierarchy are primarily made up of timber or real estate investments. Limited partnership units and real estate investment trusts are valued based upon recent independent valuations prepared by outside appraisers. The outside appraisers utilized the cost, sales comparison and income capitalization approaches to estimate the fair value of the timber or real estate investments. The significant unobservable inputs utilized in the appraisals are primarily related to the discount rates used to discount the projected future cash flows as related to land and timber prices or mortgage loans. Fixed income securities classified as Level 3 are those in inactive markets where prices have been determined to be stale and do not meet observable Level 2 criteria.

All derivative instruments are used for investment activities. Level 1 forwards and options are traded on active exchanges. Derivative instruments classified in Level 2 of the fair value hierarchy are valued using a market approach. Options contracts derive their value from underlying asset prices, indices, reference rates and other inputs or a combination of these factors. These contracts are normally valued on the basis of pricing service providers or broker dealer quotations. Depending on the product and the terms of the transaction, the value of financial derivative instruments can be estimated by a pricing service provider using a series of techniques, including simulation pricing models. The pricing models are inputs that are observed from actively quoted markets such as issuer details, indices, spreads, interest rates, yield curves and exchange rates. For centrally cleared credit default swaps, the clearing facility requires its members to provide actionable price levels across complete term structures. These levels along with external third party prices are used to produce daily settlement prices. Centrally cleared interest rate swaps are valued using a pricing model that references the underlying rates including the overnight index swap rate and London Interbank Offered Rate ("LIBOR") forward rate to produce the daily settlement price.



| Investments Measured at Net Asset Value (NAV) | Fair Value | Unfunded Commitments | Redemption Frequency | Redemption Notice Period |
|---|---------------|----------------------|-------------------------------|--------------------------|
| Mutual fund | \$ 46,552,884 | \$ - | 1st calendar day of the month | 7 business days |
| Non-security asset-stock | 60,649,590 | - | 15 th day of month | 15 calendar days |
| Real estate investment trust | 34,523,679 | - | Quarterly | 45 days |
| Total investments measured at the NAV | 141,726,153 | - | | |

Net Asset Value: The Wichita Retirement Systems (WRS) reports the following types of investments valued at Net Asset Value (NAV).

Mutual Fund - The Systems have one fund manager that has investments measured at the NAV. This investment is an international small cap equity strategy that seeks long-term capital appreciation by investing primarily in equity securities on non-U.S issuers with equity market capitalizations of \$2.5 billion or less at the time of purchase. Diversification percentages are maintained and measurement is done at the time of purchase.

Non-security asset-stock – This includes one fund manager whose investment objective is to outperform the MSCI Emerging Markets Index (the “Benchmark”) by an average of 250 basis points per year (gross of fees) over a full market cycle.

Real estate investment trust – The Systems have one fund manager that has investments measured at the NAV. The investments are in real estate investment trusts (REIT’s) that applies a focused Sustainability & Environmental, Social and Governance (“Sustainability & ESG”) investment strategy designed to manage risk, increase efficiency and satisfy tenants.

Custodial Credit Risk: The custodial credit risk for deposits is the risk that in the event of a bank failure, the WRS’ deposits may not be recovered. On December 31, 2016, the WRS’ cash deposits in the amount of \$1,190,417 were included in the City’s pooled cash and temporary investments. The WRS’ debt securities investments were registered in the name of WRS and were held in the possession of the WRS’ custodial bank, State Street. Amounts held in the City’s pooled cash and temporary investments were fully collateralized as of December 31, 2016. Additional information about the City’s pooled cash and investments is available in the City’s separately issued Comprehensive Annual Financial Report, available upon request from the Pension Management Office.

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Interest Rate Risk: Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Interest rate risk is managed using the modified duration methodology. Duration is a measure of a fixed income's cash flow using present values, weighted for cash flows as a percentage of the investment's full price. The modified duration methodology estimates the sensitivity of a bond's price to interest rate changes. The WRS manage their exposure to fair value loss arising from increasing interest rates by complying with the following policies:

1. Fixed income managers have full discretion over the issuers selected and may hold any mix of fixed income securities and cash equivalents.
2. Portfolio duration for nominal fixed income managers must not be less than 80% or more than 120% of the duration of the Barclays Capital Aggregate Bond Index, unless the Joint Investment Committee prospectively grants a written exception. As of December 31, 2016, the duration of the Index was 6.00 years, which equated to a minimum and maximum range for each fixed income portfolio of 4.80 years and 7.20 years, respectively.

Portfolio duration for Treasury Inflation Protected Securities (TIPS) fixed income managers must not be less than 80% or more than 120% of the duration of the Barclays Capital US TIPS Index. As of December 31, 2016, the duration of the Index was 5.72 years, which equated to a minimum and maximum range for each TIPS portfolio of 4.58 years and 6.86 years, respectively. The modified duration of investments on December 31, 2016 is as follows:

| Investment Type | Fair Value | Percent of all Fixed Income Assets | Weighted Average Modified Duration (years) |
|--|----------------|--|--|
| Government securities, long-term | \$ 34,478,825 | 14.3% | 11.8 |
| Corporate debt instruments, long-term | 73,589,553 | 30.5 | 5.3 |
| Mortgage and asset-backed securities | 48,572,097 | 20.2 | 3.9 |
| Global fixed income | 45,555,289 | 18.9 | 6.3 |
| Actively managed investments | 202,195,764 | 83.9 | 6.3 |
| Government short-term investment fund | 30,995,008 | 12.9 | - |
| Pooled international fixed income securities | 2,233,272 | 0.9 | 3.9 |
| Pooled high yield fixed income securities | 5,582,823 | 2.3 | 2.1 |
| Total investment in debt securities | \$ 241,006,867 | 100.0% | |

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| <u>Credit Risk of Debt Securities:</u> | <u>Quality Rating</u> | <u>Total Debt Securities</u> |
|--|-----------------------|------------------------------|
| Credit risk is the risk that an issuer of an investment will not fulfill its obligations. The WRS manages exposure to investment credit risk by adhering to the following policies: (1) for active core domestic fixed income investments, at the time of purchase, bonds and preferred stocks must be rated at least "A2/A/A" or higher using the middle rating of Moody's, Standard and Poor's and Fitch after dropping the highest and lowest available ratings. When a rating from only two agencies is available, the lower ("more conservative") rating is used. When a rating from only one agency is available, that rating is used to determine credit quality; and (2) for core-plus domestic fixed income investments, the weighted average credit quality of the portfolio will not fall below "A2/A/A" or equivalent; when determining credit quality, the middle rating of Moody's, Standard and Poor's and Fitch is used after dropping the highest and lowest available ratings. When a rating from only two agencies is available, the lower ("more conservative") rating is used. When a rating from only one agency is available, that rating is used to determine credit quality. Throughout 2016, no securities were purchased that were below the established credit quality minimum in the active core portfolio and the weighted average credit quality of the active core plus portfolio did not fall below the established credit quality rating. The accompanying table shows the debt investments held by the WRS on December 31, 2016 and their respective ratings by Standard and Poor's or an equivalent nationally recognized statistical rating organization. | AAA | \$ 10,100,680 |
| | AA+ | 71,980,105 |
| | AA | 8,741,735 |
| | AA- | 9,312,501 |
| | A+ | 8,269,615 |
| | A | 18,314,978 |
| | A- | 16,830,008 |
| | BBB+ | 21,932,172 |
| | BBB | 8,268,586 |
| | BBB- | 10,947,357 |
| | BB+ | 4,455,387 |
| | BB | 3,467,688 |
| | BB- | 6,526,267 |
| | B+ | 760,039 |
| | B | 774,187 |
| | B- | 1,172,070 |
| | CCC+ | 232,357 |
| | CCC | 1,889,707 |
| | CCC- | 1,135,968 |
| | CC | 464,614 |
| D | 18,797 | |
| Not rated | 4,417,041 | |
| Total credit risk debt securities | 210,011,859 | |
| Government short-term investment fund* | 30,995,008 | |
| Total investment in debt securities | <u>\$ 241,006,867</u> | |

* While the government short-term investment fund itself is not rated, the average quality of the holdings of the Government Short-Term Investment Fund on December 31, 2016 was A1+P1.

Credit risk for investment derivative instruments results from counterparty risk assumed by the WRS. This is essentially the risk that the counterparty to a WRS' transaction will be unable to meet its obligation. Information regarding the WRS' credit risk related to derivatives is found in the derivatives disclosures that follow.

Concentration of Credit Risk: Concentration of credit risk is the risk of loss that may be attributed to the magnitude of an entity's investment with a single issuer. The WRS' investment in debt securities had no single issuer of investments that represented 5% or more of the plan assets, with exception of investments issued or implicitly guaranteed by the U.S. government and investments in mutual funds, as delineated in the WRS' investment policy.

Rate of Return: The annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 7.16% for the year ended December 31, 2016. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for changing amounts actually invested.

Derivatives: Investment derivative instruments are financial contracts for which the value of the contract is dependent on the values of one or more underlying asset, reference rate or financial index. They include futures

contracts, swap contracts, options contracts, rights and forward foreign currency exchanges. While the WRS has no formal policy specific to investment derivatives, the WRS, through its external investment managers, held a variety of these instruments as of December 31, 2016. The WRS enters into these investment derivative instruments primarily to enhance the performance, reduce the volatility of its investment portfolio and to manage interest rate risk. The investment derivative instruments held by the WRS on and during the year ended December 31, 2016 are shown in the accompanying table. The notional values associated with these derivative instruments are generally not recorded in the financial statements; however, the exposure amounts on these instruments are included in the fair value of investments in the Statement of Fiduciary Net Position and the total changes in fair value for the year are included as investment income (loss) in the Statement of Changes in Fiduciary Net Position.

The fair value of derivative investments is based on the exchanges when available. When an exchange is not available, estimated fair values are determined in good faith by using information from J.P. Morgan traders and other market participants, including methods and assumptions considering market conditions and risks existing at the date of the Statement of Fiduciary Net Position. Such methods and assumptions incorporate standard valuation conventions and techniques, such as discounted cash flow analysis and option pricing models. All methods utilized to estimate fair values result only in general approximations of value.

| Classification and Type | Change in Fair Value | Notional Value | Exposure/ Fair Value | Counterparty (Counterparty Rating) |
|-----------------------------------|----------------------|----------------------|-------------------------|--|
| Investment revenue: | | | | |
| Credit Default Swaps Written | \$ 11,092 | \$ - | \$ - | Deutsche Bank AG New York (BBB+) |
| Credit Default Swaps Written | 636 | 270,000 | (3,673) | JPMorgan Chase Bank (A+) |
| Credit Default Swaps Written | 792 | 130,000 | 987 | |
| Fixed Income Futures Long | 911,050 | 41,518,968 | - | |
| Foreign Currency Futures Short | 17,564 | (375,000) | - | |
| Foreign Currency Options Written | 36,887 | (3,307,375) | (68,854) | |
| Futures Options Written | 201,336 | (88,000) | (27,148) | |
| FX Forwards | 992 | - | - | Bank of America, N.A. (A+) |
| FX Forwards | 259,934 | 6,110,685 | 155,024 | Barclays Bank PLC Wholesale (A-) |
| FX Forwards | 1,149 | - | - | BNP Paribas SA (A) |
| FX Forwards | 174,560 | 12,280,436 | (117,776) | Brown Brothers Harriman + CO (NR) |
| FX Forwards | 7,742 | 1,218,298 | 12,098 | Citibank N.A. (A+) |
| FX Forwards | 1,129 | - | - | Credit Suisse International (A) |
| FX Forwards | 588,150 | 11,161,159 | (780) | Goldman Sachs Bank USA (BBB+) |
| FX Forwards | 30,422 | 1,041,454 | (4,179) | JPMorgan Chase Bank N.A (A+) |
| FX Forwards | 35,525 | 2,755,303 | 53,650 | Morgan Stanley Capital Services Inc (BBB+) |
| FX Forwards | 2,938 | - | - | UBS AG (A+) |
| Pay Fixed Interest Rate Swaps | 5,437 | 8,832,000 | 352,665 | Goldman Sachs CME (BBB+) |
| Pay Fixed Interest Rate Swaps | 24,297 | 4,400,000 | 34,964 | |
| Investment loss: | | | | |
| Credit Default Swaps Bought | (29,179) | 540,000 | (33,435) | Goldman Sachs CME (BBB+) |
| Fixed Income Futures Short | (1,227,803) | (38,804,500) | - | |
| Fixed Income Options Bought | (643) | - | - | |
| Foreign Currency Options Bought | (176,583) | 1,837,375 | 42,911 | |
| Futures Options Bought | (399,524) | 6,000 | 4,922 | |
| FX forwards | (262,526) | - | - | Deutsche Bank AG (BBB+) |
| FX forwards | (18,495) | 1,065,199 | 2,947 | HSBC Bank USA (AA-) |
| FX forwards | (119,461) | 7,164,655 | (105,904) | JPMorgan Chase Bank (A+) |
| FX forwards | (4,551) | - | - | Standard Chartered Bank (A) |
| Receive Fixed Interest Rate Swaps | (54,552) | 1,750,000 | (54,552) | Goldman Sachs CME (BBB+) |
| Receive Fixed Interest Rate Swaps | (9,402) | - | - | Goldman Sachs International (A+) |
| Rights | (283) | - | - | |
| | <u>\$ 8,630</u> | <u>\$ 59,506,657</u> | <u>\$ 243,867</u> | |

Foreign Currency Risk: Currency risk arises due to foreign exchange rate fluctuations. The WRS' investment policies manage the exposure to foreign currency risk by allowing international securities investment managers to enter into forward exchange or future contracts on foreign currency provided such contracts have a maturity of less than one year. Currency contracts are only to be utilized for the settlement of securities transactions and defensive hedging of currency positions. The WRS' exposure to foreign currency risk on December 31, 2016 is presented in the accompanying table.

| Currency | Cash and Cash Equivalents | Fixed Income | Equities |
|---|---------------------------------|-----------------|----------------|
| Argentine peso | \$ - | \$ 245,005 | \$ - |
| Australian dollar | 17,784 | 261,684 | 9,002,323 |
| Brazilian real | - | 1,205,747 | - |
| Canadian dollar | 13,610 | 2,757,930 | - |
| Danish krone | - | - | 2,084,561 |
| Euro | 118,512 | 12,261,835 | 44,257,372 |
| Hong Kong dollar | 6 | - | 3,706,140 |
| Hungarian forint | 25,241 | 575,908 | - |
| Japanese yen | 124,656 | - | 27,245,063 |
| Mexican peso | 184,344 | 1,523,128 | - |
| New Zealand dollar | 28,859 | 1,716,367 | 755,711 |
| Norwegian krone | - | - | 1,799,210 |
| Polish zloty | 17,051 | - | - |
| Pound sterling | 3,167 | 2,595,057 | 20,126,584 |
| Russian Ruble | - | 262,143 | - |
| Singapore dollar | 15,152 | - | 488,513 |
| Swedish krona | - | 830,585 | 572,843 |
| Swiss franc | 58,313 | - | 7,841,422 |
| Turkist lira | - | 221,049 | - |
| Yuan renminbi | 11,940 | 346,374 | - |
| International mutual funds (various currencies) | - | 2,233,272 | - |
| Total subject to foreign currency risk | \$ 618,635 | \$ 27,036,084 | \$ 117,879,742 |

All forward foreign currency contracts are carried at fair value by the WRS. As of December 31, 2016, the Systems held forward currency contracts with an unrealized gain of \$243,867. If held, sales of forward currency contracts are receivables and are reported as investment sales pending in the financial statements.

Securities Lending Transactions: Policies of the Board of Trustees for the Wichita Employees' Retirement and Police and Fire Retirement Systems permit the lending of securities to broker-dealers and other entities (borrowers) with a simultaneous agreement to return the collateral for the same securities in the future. The WRS' custodial bank, State Street, is the lending agent for the Systems' domestic securities for initial collateral of 102% of the fair value of the loaned securities, international equity securities for initial collateral of 105% of the fair value of such securities and the initial collateral received for loans of United Kingdom (UK) Gilts shall have a value of at least 102.5% of the fair value of such UK Gilts. Collateral may consist of cash (U.S. and foreign currency); securities issued or guaranteed by the U.S. government or its agencies or instrumentalities; irrevocable bank letters of credit issued by a person other than the securities borrower or affiliate, if determined appropriate by the agent under the securities lending programs it administers; and such other collateral as the parties may agree to in writing.

The collateral securities cannot be pledged or sold by the WRS unless the borrower defaults. The lending agent shall require additional collateral from the borrower whenever the value of loaned securities exceeds the value of the collateral in the agent's possession, so that collateral always equals or exceeds 100% of the fair value of the loaned securities. Contracts with the lending agent require them to indemnify the WRS, if the borrowers fail to return the securities (and if the collateral is inadequate to replace the securities lent) or fail to pay the WRS for income distributions by the securities' issuers while the securities are on loan.

At year-end, the WRS had no credit risk exposure to borrowers because the amounts the WRS owes the borrowers exceeded the amounts the borrowers owed the Systems. All securities loans, whether domestic or international, are open loans and can be terminated on demand by either the Systems or the borrower. At year-end, loaned securities were secured with cash collateral, securities collateral or letters of credit. The amount shown on the Statement of Fiduciary Net Position only reflects transactions where cash collateral was received. Cash collateral is invested in the lending agent's short-term investment pool, which at year-end had a weighted average maturity of 31.34 days. The relationship between the maturities of the investment pool and the Wichita Retirement Systems' loans is affected by the maturities of the securities loans made by other entities that use the agent's pool, which the Wichita Retirement Systems cannot determine. Also, since securities loans are terminable at will, the duration of the securities loans do not generally match the duration of the investments made with the cash collateral received from the borrower.

Custodial Credit Risk Related to Securities Lending: Custodial credit risk for lent securities is the risk that, in the event of the failure of the counterparty, the WRS will not be able to recover the value of its investments or collateral securities that are in possession of an outside party. Consistent with the WRS' securities lending policy, \$49,160,155 was held by the counterparty acting as the WRS' agent in securities lending transactions on December 31, 2016.

Other Risk Information: Recent market conditions have resulted in an unusually high degree of volatility and increased risks associated with certain investments held by the City, the Wichita Employees' Retirement System and the Police and Fire Retirement System. As a result, it is at least reasonably possible that changes in the fair values of investment securities will occur in the near term and such changes could materially affect the amounts reported in the financial statements. In addition, declines in the fair values of Plan assets could ultimately affect the funded status of the Plans. The ultimate impact on the funded status will be determined based upon market conditions in effect when the annual valuation is performed.

3. Capital Assets

Capital asset activity for the year ended December 31, 2016 is presented in the following table (expressed in thousands of dollars).

| | Beginning Balance | Decrease | Ending Balance |
|--|----------------------|-------------|-------------------|
| Pension administration hardware and software | \$ 1,296 | \$ (13) | \$ 1,283 |
| Less accumulated depreciation | (1,296) | 13 | (1,283) |
| Capital assets, net | <u>\$ -</u> | <u>\$ -</u> | <u>\$ -</u> |

4. Wichita Employees' Retirement System

Plan Description: The Wichita Employees' Retirement System (WERS) was established to provide retirement and survivor annuities, disability benefits, death benefits and other benefits for all regular full-time civilian employees of the reporting entity and their dependents. Plan 1 was established by City Ordinance on January 1, 1948 and became closed to new entrants prior to July 18, 1981. With the initiation of Plan 2, which was established by City Ordinance on July 18, 1981, all covered employees of Plan 1 were given the option of converting to the new plan. Plan 2 was closed to new entrants with the establishment of Plan 3 by City Ordinance, effective January 1, 1994.

Plan 3 was established by City Ordinance on April 9, 1993 and amended on February 8, 2000. The reporting entity's contributions and earnings for each employee are 25% vested after three years of service, 50% vested after five years and are fully vested after seven years of service. Upon completion of seven years of service, employees participating in Plan 3 automatically convert to participation in Plan 2 unless they make an irrevocable election to convert to Plan 3b, a defined contribution plan, within 90 days thereafter. Establishment of and amendments to the benefit provisions for the WERS are authorized by the City Council.

Benefits Provided: The primary benefits provided are retirement benefits. However, the System also provides ancillary benefits in the event of pre-retirement death, disability or termination of employment prior to meeting the eligibility requirements to retire.

Plan 1 members are eligible to retire at age 60 with seven years of actual service or at any age with 30 years of creditable service. Plan 2 members may retire at age 62 with seven years of actual service. Benefits for Plan 1 members are calculated using Final Average Salary (FAS), which is the member's compensation for the three highest consecutive years of service within the last 10 years, multiplied by the total years of creditable service and a factor of 2.5%, subject to a maximum of 75% of the FAS. Benefits for Plan 2 members are the same as Plan 1 except they are calculated using a factor of 2.25% instead of 2.5%. Benefits vest with seven years of actual service. The calculation is reduced with early retirement.

When a Plan 1 member has been retired for 12 months, they will receive an annual post-retirement adjustment of 3% of the original base amount of the benefit. The annual post-retirement adjustment for Plan 2 members is 2%.

As of December 31, 2016, the WERS plan membership consisted of the following:

| <u>Member Category</u> | <u>Plan 1</u> | <u>Plan 2</u> | <u>Plan 3</u> | <u>Total</u> |
|--|---------------|---------------|---------------|--------------|
| Inactive employees or beneficiaries currently receiving benefits | 717 | 676 | - | 1,393 |
| Inactive employees entitled to but not yet receiving benefits | - | 134 | - | 134 |
| Active employees | 3 | 952 | 617 | 1,572 |
| Total membership | <u>720</u> | <u>1,762</u> | <u>617</u> | <u>3,099</u> |

Deferred Retirement Option Plan (DROP) Provision: The benefit structure of the Wichita Employees' Retirement System includes a Deferred Retirement Option Plan (DROP). Both Plan 1 and Plan 2 provide a DROP provision. Members must be eligible to receive a service retirement benefit as of the DROP retirement date to participate in the DROP. The DROP period is one to sixty months. The monthly benefit amount is computed as of the DROP election date based on the final average salary and years of service as of that date. The benefit is paid into the member's notional DROP account during the deferral or DROP period. The member and City both continue to make the required contributions during the deferral period. These contributions are not credited to the member's DROP account, but are credited to general Plan assets to improve the System's funding. Interest at an annual rate of 5.0%, compounded monthly, is credited to the notional DROP account. Voluntary termination of employment during the DROP period results in loss of accrued interest. When the member terminates employment, the balance of the DROP account is paid as a lump sum and future monthly benefits are paid to the member. The balance of the notional DROP accounts as of December 31, 2016 is \$3,616,582.

Funding Policy: The contribution requirements of plan members and the reporting entity are established by City Ordinance and may be amended by the governing body. Members of Plan 1 and 2 are required to contribute 6.4% and 4.7% of covered salaries, respectively. Members of Plan 3 are required to contribute 4.7% of covered salaries. From its various operating funds, the City is required to contribute at an actuarially determined rate; the rate for 2016 was 11.6% of annual covered payroll for Plans 1, 2 and 3 (excluding compensation attributable to members who have made an irrevocable election to remain in the defined contribution plan after fully vesting at seven years of service). The actuarially determined rate is the estimated amount necessary to finance the cost of benefits earned by employees during the year, with an additional amount to finance any unfunded liability. The City may provide for pension expenses by levying ad valorem property taxes each year in the amount necessary to meet its obligation as determined by the WERS consulting actuary. For the year ended December 31, 2016, WERS received \$8,946,064 in contributions from the employer for Plans 1, 2 and 3.

Actuarial Assumptions: A summary of the actuarial assumptions and other inputs used in measuring the total pension liability are presented in the accompanying table. The actuarial assumptions used in the December 31, 2016 valuation were based on the results of the most recent experience study, which covered the five-year period ending December 31, 2013. The experience report is dated July 15, 2014.

| | |
|--|---|
| Price inflation | 3.25% |
| Wage inflation | 4.00% |
| Salary increases, including wage inflation | 4.25% - 7.20% |
| Long-term rate of return, net of investment expense, including price inflation | 7.90% |
| Pre-retirement mortality rates | based on the RP-2000 Employee Table (ages set forward 2 years for males, 0 for females) with adjustments for mortality improvements based on Scale AA. |
| Post-retirement mortality rates | based on the RP-2000 Healthy Annuitant Table (ages set forward 2 years for males, 0 for females) with adjustments for mortality improvements based on Scale AA. |
| Disabled mortality rates | based on the RP-2000 Disabled Table for males and females, as appropriate, with adjustments for mortality improvements based on Scale AA. |

Actuarial Rate of Return Assumption:

The long-term expected rate of return on pension plan investments is reviewed as part of the regular experience study prepared for the System. Several factors are considered in evaluating the long-term rate of return assumption, including long term historical data, estimates inherent in current market data, and an analysis in which best-estimate ranges of expected future real rates of return (expected return, net of investment expense and inflation), along with

| Asset Class | Target Allocation | Long-Term Expected Real Rate of Return* |
|-----------------------|-------------------|---|
| Broad US equity | 39% | 4.60% |
| Broad international | 26% | 4.50% |
| Broad US fixed income | 19% | 0.75% |
| Real estate | 7% | 3.50% |
| Timber | 5% | 3.75% |
| Commodities | 3% | 0.40% |
| Cash | 1% | 0.00% |
| Total | 100% | |

*Geometric mean, net of investment expenses

estimates of variability and correlations for each asset class. These ranges were combined to develop the long-term expected rate of return by weighting the expected future real rates of return the target asset allocation percentage and then adding expected inflation. The long-term rate of return assumption is intended to be a long-term assumption (30 to 50 years) and is not expected to change absent a significant change in the asset allocation, a change in the inflation assumption, or a fundamental change in the market that alters expected returns in future years. The target asset allocation and best-estimates of geometric real rates of return (net of 2.25% inflation assumption) for each major asset class are summarized in the accompanying table.

Discount Rate: The fiduciary net position is not projected to become depleted; therefore, a Municipal Bond Index Rate was not used in the determination of the Single Equivalent Interest Rate (SEIR) for either the December 31, 2016 or the December 31, 2015 valuations. Thus, the discount rate, or the SEIR, is equal to the long-term assumed rate of return on investments, as determined in the last experience study. The discount rate used to measure the total pension liability as of the December 31, 2016 valuation is 7.90%. There was no change in the discount rate since the prior measurement date. Please note 7.75% is used in the annual funding valuation to determine the City's contribution rate. This rate is lower than the SEIR because it is net of administrative expenses.

The projection of cash flows used to determine the discount rate assumed that the employee contributions will be made at the current contribution rate and that the City contributions will be made at rates equal to the difference between the actuarially determined contribution rates and the employee rate. Projected future benefit payments for all current plan members were projected through 2115. 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 and inactive employees. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Net Pension Liability of the City: The components of net pension liability as of December 31, 2016, are shown in the accompanying table. Actuarial valuation of an ongoing plan involves estimates of reported amounts and assumptions about the probability of occurrence of events far into the future. Amounts determined regarding the net pension liability are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The total pension liability was determined by an actuarial valuation as of December 31, 2016. A Schedule of Changes in the Employer's Net Pension Liability and Related Ratios is presented in the required supplementary information of this report (page A-24).

| | |
|------------------------------------|----------------------|
| Total Pension Liability (TPL) | \$ 610,111,147 |
| Less: Fiduciary Net Position (FNP) | (549,786,949) |
| Net Pension Liability (NPL) | <u>\$ 60,324,198</u> |
| Ratio of FNP to TPL | <u>90.11%</u> |

Sensitivity Analysis: The accompanying table presents the net pension liability of the City using the discount rate of 7.90%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1.0% lower (6.90%) or 1.0% higher (8.90%) than the current rate.

| | Rate | City's Net Pension Liability |
|---------------|-------|---------------------------------|
| 1.0% decrease | 6.90% | \$ 127,059,711 |
| Current rate | 7.90% | 60,324,198 |
| 1.0% increase | 8.90% | 3,699,714 |

5. Wichita Employees' Retirement System Plan 3b

The City contributes to Wichita Employees' Retirement System Plan 3b, a defined contribution pension plan, for all of its full-time civilian employees hired or rehired on or after January 1, 1994. Benefits depend solely on amounts contributed to the plan plus investment earnings.

Plan 3, established by City Ordinance on April 9, 1993 and amended on February 8, 2000, requires that both the employee and the reporting entity contribute an amount equal to 4.7% of covered salaries. The reporting entity's contributions and earnings for each employee are 25% vested after three years of service, 50% vested after five years and are fully vested after seven years of service.

The employees participating in the Plan will be converted to WERS Plan 2, a defined benefit plan, unless they make an irrevocable election to remain in the defined contribution plan within 90 days of becoming vested. If an employee converts to Plan 2, the employee's Plan 3 account balance becomes part of WERS assets available to pay future benefits of WERS defined benefit plan members. For this reason, Plan 3 members who have not made an irrevocable election to remain in the defined contribution plan are reported with the WERS defined benefit plan. Fully vested Plan 3 members who elect to remain in the defined contribution plan are referred to as Plan 3b members and are reported as a separate plan on the combining financial statements beginning on page A-6.

Fully vested employees who elect to continue participation in Plan 3b may contribute additional amounts into the plan as permitted by the rules of the Internal Revenue Code in effect at the time of the contribution. Contributions of the reporting entity and earnings forfeited by employees who leave employment before seven years of service

are used to reduce the reporting entity's contribution requirements. Benefit terms, including contribution requirements, are established and may be amended by the City Council. For the year ending December 31, 2016, employee and employer contributions to Plan 3b totaled \$203,521 and \$203,520, respectively. As of December 31, 2016, there were 91 members covered under the defined contribution Plan 3b.

6. Police and Fire Retirement System of Wichita

Plan Description: The Police and Fire Retirement System (PFRS) consists of three plans: Plan A, Plan B and Plan C-79. The plans were established to provide retirement and survivor annuities, disability benefits death benefits and other benefits for Police and Fire Officers of the reporting entity and their dependents. All full-time active "commissioned" Police and Fire department personnel are required to participate in the plans. Plans A and B were established by City Ordinance on January 1, 1965 and Plan C-79 was established January 1, 1979 by City Ordinance. Plan B was closed to new entrants as of January 1, 1965 and Plan A was closed to new entrants as of December 31, 1978. Establishment of and amendments to the benefit provisions for the PFRS are authorized by the City Council.

Benefits Provided: The primary benefits provided are retirement benefits. However, the System also provides ancillary benefits in the event of pre-retirement death, disability or termination of employment prior to meeting the eligibility requirements to retire.

Plan A and Plan B members are eligible to retire at 20 years of actual service regardless of age. Plan C members are eligible to retire at 30 years of creditable service regardless of age, 20 years of actual service and age 50 or 10 years of actual service and age 55. Benefits are calculated using Final Average Salary (FAS), which is the member's compensation for the three highest consecutive years of service within the last 10 years, multiplied by the total years of creditable service and a factor of 2.5%, subject to a maximum of 75% of the FAS. Benefits vest after 10 years of service.

When a member has been retired for 36 months, they will receive an annual post-retirement adjustment to their benefit of 2% of the original base amount of the benefit.

As of December 31, 2016, the PFRS defined benefit plan membership consisted of the following:

| <u>Member Category</u> | <u>Plan A</u> | <u>Plan B</u> | <u>Plan C-79</u> | <u>Total</u> |
|--|---------------|---------------|------------------|--------------|
| Inactive employees or beneficiaries currently receiving benefits | 445 | 202 | 340 | 987 |
| Inactive employees entitled to but not yet receiving benefits | - | - | 35 | 35 |
| Active employees | 4 | - | 1,059 | 1,063 |
| Total membership | <u>449</u> | <u>202</u> | <u>1,434</u> | <u>2,085</u> |

Backward Deferred Retirement Option Plan (DROP) Provision: The benefit structure of the Wichita Police and Fire Retirement System includes a Backward Deferred Retirement Option Plan (DROP). The Backward DROP is available to Plan A and Plan C-79 members. Members must be eligible to receive a service retirement benefit as of the Backward DROP retirement date. The DROP period is one to sixty months. The DROP period is the time between the Backward DROP retirement date and the date the employee terminates service. The retirement benefit is calculated as of the day prior to the Backward DROP retirement date. The employee's monthly retirement benefits (for the DROP period) plus applicable post retirement adjustments and interest at an annual rate of 5.0%, compounded monthly, is payable upon the employee's termination of service. When the member terminates employment, the balance of the DROP account is paid as a lump sum and the member begins to receive monthly retirement benefits on the month following termination of service.

Funding Policy: The contribution requirements of plan members and the reporting entity are established by City Ordinance and may be amended by the governing body. PFRS members are required to contribute 6% to 8% of covered salaries. From its various operating funds, the City is required to contribute at an actuarially determined

rate; the rate for 2016 was 18.8% of annual covered payroll. The actuarially determined rate is the estimated amount necessary to finance the cost of benefits earned by employees during the year, with an additional amount to finance any unfunded liability. The City may provide for pension expenses by levying ad valorem property taxes each year in the amount necessary to meet its obligation as determined by the PFRS consulting actuary. For the year ended December 31, 2016, WRS received \$12,585,895 in contributions from the employer.

Actuarial Assumptions: A summary of the actuarial assumptions and other inputs used in measuring the total pension liability are presented in the table on the following page. The actuarial assumptions used in the December 31, 2016 valuation were based on the results of the most recent experience study, which covered the five-year period ending December 31, 2013. The experience report is dated July 15, 2014.

| | |
|--|--|
| Price inflation | 3.25% |
| Wage inflation | 4.00% |
| Salary increases, including wage inflation | 5.00% - 6.75% |
| Long-term rate of return, net of investment expense, including price inflation | 7.90% |
| Pre-retirement mortality rates | based on the RP-2000 Employee Table for males and females, as appropriate, with adjustments for mortality improvements based on Scale AA. |
| Post-retirement mortality rates | based on the RP-2000 Healthy Annuitant Table for males and females, as appropriate, with adjustments for mortality improvements based on Scale AA. |
| Disabled mortality rates | based on the RP-2000 Disabled Table for males and females, as appropriate, with adjustments for mortality improvements based on Scale AA. |

Actuarial Rate of Return Assumption and Discount Rate: Information about the actuarial rate of return assumption and the discount rate is disclosed in Note 4 - Wichita Employees' Retirement System. Because the assets of the plans are pooled for investment purposes, the assumptions for the Police and Fire Retirement System are identical to those of the Wichita Employees' Retirement System.

Net Pension Liability of the City: The components of net pension liability as of December 31, 2016, are shown in the accompanying table. Actuarial valuation of an ongoing plan involves estimates of reported amounts and assumptions about the probability of occurrence of events far into the future. Amounts determined regarding the net pension liability are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The total pension liability was determined by an actuarial valuation as of December 31, 2016. A Schedule of Changes in the Employer's Net Pension Liability and Related Ratios is presented in the required supplementary information of this report (page A-26).

| | |
|------------------------------------|----------------|
| Total Pension Liability (TPL) | \$ 670,427,649 |
| Less: Fiduciary Net Position (FNP) | (614,047,281) |
| Net Pension Liability (NPL) | \$ 56,380,368 |
| Ratio of FNP to TPL | 91.59% |

Sensitivity Analysis: The accompanying table presents the net pension liability of the City using the discount rate of 7.90%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1.0% lower (6.90%) or 1.0% higher (8.90%) than the current rate.

| | Rate | City's Net Pension Liability |
|---------------|-------|------------------------------|
| 1.0% decrease | 6.90% | \$ 137,461,499 |
| Current rate | 7.90% | 56,380,368 |
| 1.0% increase | 8.90% | (11,126,261) |

7. Insurance

The WRS participate in the City of Wichita's self insurance fund programs for workers' compensation, group life insurance, employee liability, property damage, auto liability and general liability. There were no settlements in excess of insurance coverage in any of the three most recent fiscal years. Additional information, including a general description of each program, can be found in the Comprehensive Annual Financial Report issued by the City of Wichita.

WICHITA RETIREMENT SYSTEMS

REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS WICHITA EMPLOYEES' RETIREMENT SYSTEM

For the years ended December 31, 2014 through December 31, 2016¹

| | 2016 | 2015 | 2014 |
|--|----------------|-----------------|----------------|
| TOTAL PENSION LIABILITY | | | |
| Service cost | \$ 9,679,684 | \$ 9,644,456 | \$ 9,278,998 |
| Interest | 45,634,881 | 44,305,832 | 43,680,283 |
| Benefit term changes | - | - | - |
| Differences between expected and actual experience | (2,791,029) | (656,102) | (3,427,255) |
| Assumption changes | - | (8,877,507) | (3,550,489) |
| Reclassification due to conversion of members to Plan 3b | (244,793) | (465,171) | (571,242) |
| Benefit payments, including member refunds | (39,144,783) | (37,089,403) | (37,681,042) |
| Net change in total pension liability | 13,133,960 | 6,862,105 | 7,729,253 |
| Total pension liability - beginning | 596,977,187 | 590,115,082 | 582,385,829 |
| Total pension liability - ending (a) | \$ 610,111,147 | \$ 596,977,187 | \$ 590,115,082 |
| PLAN FIDUCIARY NET POSITION | | | |
| Employer contributions | \$ 8,946,064 | \$ 9,031,463 | \$ 9,423,640 |
| Employee contributions | 3,642,007 | 3,574,026 | 3,394,544 |
| Reclassification due to conversion of members to Plan 3b | (244,793) | (465,171) | (571,242) |
| Net investment income | 35,956,780 | 13,380 | 28,659,491 |
| Benefit payments, including member refunds | (39,144,783) | (37,089,403) | (37,681,042) |
| Administrative expenses | (615,829) | (624,085) | (621,460) |
| Net change in Plan fiduciary net position | \$ 8,539,446 | \$ (25,559,790) | \$ 2,603,931 |
| Plan fiduciary net position - beginning | 541,247,503 | 566,807,293 | 564,203,362 |
| Plan fiduciary net position - ending (b) | \$ 549,786,949 | \$ 541,247,503 | \$ 566,807,293 |
| Net pension liability - ending (a) - (b) | \$ 60,324,198 | \$ 55,729,684 | \$ 23,307,789 |
| Fiduciary net position as a percentage of total pension liability | 90.11% | 90.66% | 96.05% |
| Covered payroll | \$ 77,121,241 | \$ 74,028,385 | \$ 71,391,212 |
| Employer's net pension liability as a percentage of covered payroll | 78.22% | 75.28% | 32.65% |

NOTES TO SCHEDULE

Benefit changes:

There have been no changes to the plan provisions in the last ten years.

Changes in actuarial assumptions:

December 31, 2015 valuation

- There were no changes to the assumptions used for the funding valuation, even though, the Single Equivalent Interest Rate (SEIR) at the measurement date was changed for GASB 67 valuation.

December 31, 2014 valuation

- Decrease in the price inflation rate from 3.50% to 3.25%.
- Modify Plan 2 retirement assumption to partially reflect experience. The changes increased rates at some ages and decreased them at others.
- Eliminate the disability assumption.
- Change the termination of employment assumption to a pure service-based assumption.
- Reduce the sick leave load from 4.0% to 2.5%.
- A 20% corridor was added to the actuarial value of assets calculation.

December 31, 2009 valuation

- Decrease in the price inflation rate from 4.0% to 3.5%.
- Decrease in the general wage growth assumption from 4.5% to 4.0%.
- Modification of the retirement rates for both Plans 1 and 2 to better reflect actual experience. The changes increased rates at some ages and decreased them at others.
- Increase in the rates of termination of employment for ages under 32 for the ultimate assumption.
- Lower assumption for indexation of benefits for terminated vested members from 4.5% to 4.0% to be consistent with the general wage growth assumption.
- Non-disabled mortality tables were updated to reflect an additional year of mortality improvements.

¹ Schedule is intended to show a 10-year trend. Additional years will be reported as they become available.

WICHITA RETIREMENT SYSTEMS

REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS POLICE AND FIRE RETIREMENT SYSTEM

For the years ended December 31, 2014 through December 31, 2016 ¹

| | 2016 | 2015 | 2014 |
|--|----------------|-----------------|----------------|
| TOTAL PENSION LIABILITY | | | |
| Service cost | \$ 14,772,379 | \$ 14,981,100 | \$ 15,894,290 |
| Interest | 49,519,284 | 47,600,166 | 46,490,734 |
| Benefit term changes | - | - | - |
| Differences between expected and actual experience | (2,576,401) | (3,259,180) | (12,040,126) |
| Assumption changes | - | (10,871,013) | 226,376 |
| Benefit payments, including member refunds | (35,552,267) | (36,090,820) | (36,415,156) |
| Net change in total pension liability | 26,162,995 | 12,360,253 | 14,156,118 |
| Total pension liability - beginning | 644,264,654 | 631,904,401 | 617,748,283 |
| Total pension liability - ending (a) | \$ 670,427,649 | \$ 644,264,654 | \$ 631,904,401 |
| PLAN FIDUCIARY NET POSITION | | | |
| Employer contributions | \$ 12,585,895 | \$ 13,964,379 | \$ 14,464,181 |
| Employee contributions | 4,776,958 | 4,603,331 | 4,529,895 |
| Net investment income | 39,901,640 | (163,702) | 30,596,067 |
| Benefit payments, including member refunds | (35,552,267) | (36,090,820) | (36,415,156) |
| Administrative expenses | (548,171) | (521,018) | (542,207) |
| Net change in Plan fiduciary net position | \$ 21,164,055 | \$ (18,207,830) | \$ 12,632,780 |
| Plan fiduciary net position - beginning | 592,883,226 | 611,091,056 | 598,458,276 |
| Plan fiduciary net position - ending (b) | \$ 614,047,281 | \$ 592,883,226 | \$ 611,091,056 |
| Net pension liability - ending (a) - (b) | \$ 56,380,368 | \$ 51,381,428 | \$ 20,813,345 |
| Fiduciary net position as a percentage of total pension liability | 91.59% | 92.02% | 96.71% |
| Covered payroll | \$ 66,946,250 | \$ 65,560,465 | \$ 64,572,237 |
| Employer's net pension liability as a percentage of covered payroll | 84.22% | 78.37% | 32.23% |

NOTES TO SCHEDULE

Benefit changes:

There have been no changes to the plan provisions in the last ten years.

Changes in actuarial assumptions:

December 31, 2015 valuation

- There were no changes to the assumptions used for the funding valuation, even though, the Single Equivalent Interest Rate (SEIR) at the measurement date was changed for GASB 67 valuation.

December 31, 2014 valuation

- Decrease in the price inflation rate from 3.50% to 3.25%.
- Modify Plan C retirement assumption to partially reflect experience. Created separate rates for less than or more than 30 years of service.
- Lower assumed disability rates.
- Change the termination of employment assumption to a pure service-based assumption.
- Modify the probability of electing a refund to partially reflect actual, observed experience.
- Reduce the sick leave load from 4.0% to 3.0%.
- A 20% corridor was added to the actuarial value of assets calculation.

December 31, 2009 valuation

- Decrease in the price inflation rate from 4.0% to 3.5%.
- Decrease in the general wage growth assumption from 4.5% to 4.0%.
- Lower the retirement rates for Plan A and extend them to 35 years of service.
- Lower the retirement rates for Plan C members at ages before 53 and ages 58-60 and increase rates at ages 56 and 57.
- Increase the rates of termination of employment for ages under 44 and decrease rates at ages over 44.
- Lower assumption for indexation of benefits for terminated vested members from 4.5% to 4.0% to be consistent with the general wage growth assumption.

¹ Schedule is intended to show a 10-year trend. Additional years will be reported as they become available.

WICHITA RETIREMENT SYSTEMS

REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF EMPLOYER CONTRIBUTIONS WICHITA EMPLOYEES' RETIREMENT SYSTEM

For the years ended December 31, 2007 through December 31, 2016
(dollars expressed in thousands)

| | <u>2016</u> | <u>2015</u> | <u>2014</u> | <u>2013</u> | <u>2012</u> |
|--|--------------|--------------|--------------|--------------|--------------|
| Actuarially determined employer contributions | \$ 8,946 | \$ 9,031 | \$ 9,424 | \$ 8,940 | \$ 7,503 |
| Actual employer contributions | <u>8,946</u> | <u>9,031</u> | <u>9,424</u> | <u>8,940</u> | <u>7,503</u> |
| Annual contribution deficiency (excess) | <u>\$ -</u> | <u>\$ -</u> | <u>\$ -</u> | <u>\$ -</u> | <u>\$ -</u> |
| Covered payroll | \$ 77,121 | \$ 74,028 | \$ 71,391 | \$ 70,953 | \$ 70,783 |
| Contributions as a percentage of covered payroll | 11.60% | 12.20% | 13.20% | 12.60% | 10.60% |

NOTES TO SCHEDULE

The system is funded with fixed contribution rates for members and actuarially determined amounts for the City of Wichita. The Actuarially Determined Contributions in the Schedule of Employer Contributions are calculated as of December 31, two years prior to the end of the fiscal year in which contributions are reported.

The following actuarial methods and assumptions were used to determine the Actuarially Determined Contribution reported as of December 31, 2016.

| | |
|---|---|
| Actuarial cost method | Entry age normal |
| Amortization method | Level percentage of payroll, open |
| Remaining amortization period | Rolling 20 years |
| Asset valuation method | Expected Value + 25% of (Fair Value - Expected Value) |
| Price inflation | 3.25% |
| Salary increases, including wage inflation | 4.25% - 7.20% |
| Long-term rate of return, net of investment expense and including inflation | 7.75% |

| <u>2011</u> | <u>2010</u> | <u>2009</u> | <u>2008</u> | <u>2007</u> |
|--------------|--------------|--------------|--------------|--------------|
| \$ 7,695 | \$ 6,689 | \$ 3,887 | \$ 3,834 | \$ 3,701 |
| <u>7,695</u> | <u>6,689</u> | <u>3,887</u> | <u>3,834</u> | <u>3,701</u> |
| <u>\$ -</u> | <u>\$ -</u> | <u>\$ -</u> | <u>\$ -</u> | <u>\$ -</u> |
| \$ 75,444 | \$ 79,636 | \$ 82,704 | \$ 81,580 | \$ 78,736 |
| 10.20% | 8.40% | 4.70% | 4.70% | 4.70% |

WICHITA RETIREMENT SYSTEMS

REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF EMPLOYER CONTRIBUTIONS POLICE AND FIRE RETIREMENT SYSTEM

For the years ended December 31, 2007 through December 31, 2016
(dollars expressed in thousands)

| | <u>2016</u> | <u>2015</u> | <u>2014</u> | <u>2013</u> | <u>2012</u> |
|--|---------------|---------------|---------------|---------------|---------------|
| Actuarially determined employer contributions | \$ 12,586 | \$ 13,964 | \$ 14,464 | \$ 14,890 | \$ 14,113 |
| Actual employer contributions | <u>12,586</u> | <u>13,964</u> | <u>14,464</u> | <u>14,890</u> | <u>14,113</u> |
| Annual contribution deficiency (excess) | <u>\$ -</u> | <u>\$ -</u> | <u>\$ -</u> | <u>\$ -</u> | <u>\$ -</u> |
| Covered payroll | \$ 66,946 | \$ 65,560 | \$ 64,572 | \$ 65,306 | \$ 64,150 |
| Contributions as a percentage of covered payroll | 18.80% | 21.30% | 22.40% | 22.80% | 22.00% |

NOTES TO SCHEDULE

The system is funded with fixed contribution rates for members and actuarially determined amounts for the City of Wichita. The Actuarially Determined Contributions in the Schedule of Employer Contributions are calculated as of December 31, two years prior to the end of the fiscal year in which contributions are reported.

The following actuarial methods and assumptions were used to determine the Actuarially Determined Contribution reported as of December 31, 2016.

| | |
|---|---|
| Actuarial cost method | Entry age normal |
| Amortization method | Level percentage of payroll, open |
| Remaining amortization period | Rolling 20 years |
| Asset valuation method | Expected Value + 25% of (Fair Value - Expected Value) |
| Price inflation | 3.25% |
| Salary increases, including wage inflation | 5.00% - 6.75% |
| Long-term rate of return, net of investment expense and including inflation | 7.75% |

| <u>2011</u> | <u>2010</u> | <u>2009</u> | <u>2008</u> | <u>2007</u> |
|---------------|---------------|---------------|---------------|---------------|
| \$ 13,807 | \$ 13,120 | \$ 11,035 | \$ 10,549 | \$ 10,029 |
| <u>13,807</u> | <u>13,120</u> | <u>11,035</u> | <u>10,549</u> | <u>10,029</u> |
| <u>\$ -</u> | <u>\$ -</u> | <u>\$ -</u> | <u>\$ -</u> | <u>\$ -</u> |
| \$ 62,759 | \$ 63,077 | \$ 63,055 | \$ 60,282 | \$ 57,310 |
| 22.00% | 20.80% | 17.50% | 17.50% | 17.50% |

WICHITA RETIREMENT SYSTEMS

**REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF INVESTMENT RETURNS**

For the years ended December 31, 2014 through December 31, 2016¹

| | <u>2016</u> | <u>2015</u> | <u>2014</u> |
|---|-------------|-------------|-------------|
| Annual money-weighted rate of return, net of investment expenses | 7.16 % | 0.63 % | 5.18 % |

¹ Schedule is intended to show a 10-year trend. Additional years will be reported as they become available.

WICHITA RETIREMENT SYSTEMS

SUPPLEMENTARY INFORMATION SCHEDULE OF ADMINISTRATIVE EXPENSES

For the year ended December 31, 2016
(with comparative totals for the year ended December 31, 2015)

| | Police and Fire | Employees' | Employees' | Totals | |
|-----------------------------------|----------------------|----------------------|-----------------------|---------------------|---------------------|
| | Retirement System | Retirement System | Retirement Plan 3b | 2016 | 2015 |
| Personnel services: | | | | | |
| Wages | \$ 280,861 | \$ 280,861 | \$ - | \$ 561,722 | \$ 488,192 |
| Benefits | 60,182 | 60,182 | - | 120,364 | 97,172 |
| Total personnel services | <u>341,043</u> | <u>341,043</u> | <u>-</u> | <u>682,086</u> | <u>585,364</u> |
| Contractual services: | | | | | |
| Telephone | 1,514 | 1,514 | - | 3,028 | 3,408 |
| Postage | 1,700 | 1,649 | - | 3,349 | 3,129 |
| Transportation and travel | 8,494 | 4,823 | - | 13,317 | 6,611 |
| Data center charges | 5,979 | 5,979 | - | 11,958 | 10,662 |
| City administrative fees | 23,669 | 23,669 | - | 47,338 | 43,340 |
| Actuarial fees | 33,213 | 34,817 | - | 68,030 | 63,720 |
| Audit fees | 8,105 | 8,105 | - | 16,210 | 16,546 |
| Studies and consultants | 22,397 | 21,902 | - | 44,299 | 10,473 |
| Legal services | 5,012 | 13,964 | 37 | 19,013 | 29,145 |
| Advertising | 50 | 81 | - | 131 | 5,506 |
| Periodicals and manuals | 181 | 181 | - | 362 | 1,236 |
| Membership dues | 525 | 2,150 | - | 2,675 | 1,575 |
| Printing and photocopying | 6,007 | 5,189 | - | 11,196 | 10,998 |
| Plan 3 participant administration | - | 27,410 | 4,809 | 32,219 | 29,751 |
| Pension software expense | 56,310 | 80,916 | 2,517 | 139,743 | 170,659 |
| Depreciation | - | - | - | - | 108,066 |
| Custody transactions | 32,091 | 39,060 | 3 | 71,154 | 44,334 |
| Other | 469 | 1,983 | - | 2,452 | 923 |
| Total contractual services | <u>205,716</u> | <u>273,392</u> | <u>7,366</u> | <u>486,474</u> | <u>560,082</u> |
| Commodities: | | | | | |
| Office equipment and supplies | 1,079 | 1,079 | - | 2,158 | 3,784 |
| Data processing equipment | - | - | - | - | 474 |
| Other | 333 | 315 | - | 648 | 455 |
| Total commodities | <u>1,412</u> | <u>1,394</u> | <u>-</u> | <u>2,806</u> | <u>4,713</u> |
| Total administrative expenses | <u>\$ 548,171</u> | <u>\$ 615,829</u> | <u>\$ 7,366</u> | <u>\$ 1,171,366</u> | <u>\$ 1,150,159</u> |

WICHITA RETIREMENT SYSTEMS

SUPPLEMENTARY INFORMATION SCHEDULE OF INVESTMENT EXPENSES

For the year ended December 31, 2016
(with comparative totals for the year ended December 31, 2015)

| | Police and Fire Retirement System | Employees' Retirement System | Employees' Retirement Plan 3b | Totals | |
|----------------------------|---|------------------------------------|-------------------------------------|---------------------|---------------------|
| | | | | 2016 | 2015 |
| Investment expenses: | | | | | |
| Financial consulting | \$ 129,779 | \$ 125,995 | \$ 664 | \$ 256,438 | \$ 244,451 |
| Custodial bank | 83,176 | 74,699 | - | 157,875 | 210,500 |
| Investment management fees | 2,939,619 | 2,646,503 | 11,709 | 5,597,831 | 5,649,787 |
| Total investment expenses | <u>\$ 3,152,574</u> | <u>\$ 2,847,197</u> | <u>\$ 12,373</u> | <u>\$ 6,012,144</u> | <u>\$ 6,104,738</u> |

SCHEDULE OF PAYMENTS MADE TO CONSULTANTS OTHER THAN INVESTMENT ADVISORS

For the year ended December 31, 2016
(with comparative totals for the year ended December 31, 2015)

| | Police and Fire Retirement System | Employees' Retirement System | Employees' Retirement Plan 3b | Totals | |
|---|---|------------------------------------|-------------------------------------|-------------------|-------------------|
| | | | | 2016 | 2015 |
| Ice Miller LLP (legal services) | \$ 5,012 | \$ 13,964 | \$ 37 | \$ 19,013 | \$ 29,145 |
| Cavanaugh Macdonald Consulting (actuarial services) | 33,213 | 34,817 | - | 68,030 | 63,720 |
| Allen, Gibbs & Houlik, L.C. (auditing services) | 8,105 | 8,105 | - | 16,210 | 16,546 |
| Northeast Retirement Services (participant accounting) | - | 27,410 | 4,809 | 32,219 | 29,751 |
| Total payments | <u>\$ 46,330</u> | <u>\$ 84,296</u> | <u>\$ 4,846</u> | <u>\$ 135,472</u> | <u>\$ 139,162</u> |

INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL
REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF
FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH
GOVERNMENT AUDITING STANDARDS

The Boards of Trustees
Wichita Retirement Systems
Wichita, Kansas

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Wichita Retirement Systems of the City of Wichita, Kansas (Systems), which comprise the statement of fiduciary net position as of December 31, 2016, and the related statement of changes in fiduciary net position for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated June 28, 2017.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Systems' internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Systems' internal control. Accordingly, we do not express an opinion on the effectiveness of the Systems' internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses, as defined above. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Systems' financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Allen, Gibbs & Houlik, L.C.
CERTIFIED PUBLIC ACCOUNTANTS

June 28, 2017
Wichita, Kansas

INVESTMENT SECTION

March 1, 2017

The Wichita Retirement Systems
Wichita Employees' Retirement System and Police & Fire Retirement System of Wichita
455 North Main Street, 12th Floor
Wichita, KS 67202

RE: Report on 2016 Investment Activities

Dear Board Members:

The Boards of Trustees of the Wichita Retirement Systems has created a Trust Fund that makes investments for the sole interest of the participants and beneficiaries of the Fund. The primary purpose of the investments is to generate rates of return at a reasonable and controlled level of risk that enable the Fund to pay all pension benefit and expense obligations when due. Accordingly, the assets of the Fund are invested in accordance with these investment objectives: (1) to fulfill current benefit obligations; (2) to maximize return within reasonable and prudent levels of risk; and (3) to maintain sufficient liquidity to meet benefit payment obligations when due.

Trust Fund assets are to be invested with the care, skill, and diligence that a prudent person acting in a like capacity would undertake. The Boards acknowledge that they have the objective of controlling the costs involved with administering and managing the investments of the Fund.

In establishing its risk tolerance, the Boards conducted an asset/liability study in June of 2016 to re-evaluate the asset allocation of the Fund alongside the liabilities. The Boards considered their ability to withstand short and intermediate-term volatility in market conditions. The Boards also reviewed the long-term characteristics of various asset classes, focusing on balancing risk with expected return. Accordingly, the Boards selected the following as allowable asset classes: domestic equity; fixed income; international equity; real estate; commodities; and timber.

The Boards, with information provided by their Financial Consultant, closely monitor the Fund's asset mix to assure compliance with the adopted Investment Policy Statement and appropriate City ordinances that regulate the investment process.

On an ongoing basis, the Boards implement a performance measurement and evaluation process that examines rates of return for the Trust Fund in total, the major asset classes, and individual managers. The Boards compare returns to broad market indices and relevant "peer groups" of investment managers with similar investment styles. All returns are time-weighted rates of return calculated by the Fund's Financial Consultant on the basis of fair value and cash flow data provided by the Fund's custodian bank.

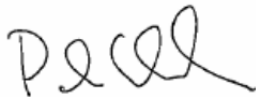
After a rough start to the calendar year, U.S. equity markets surged through the fourth quarter of 2016 finishing off a strong year across the board (Russell 3000 Index: +12.7%). International

equity markets ended up 4.5% (MSCI ACWI ex US) in a year that included Britain voting in favor of the 'Brexit' referendum, the pound hitting a 31-year low, and, despite concern at the beginning of 2016, China hitting its growth target of 8.5%. Oil prices ended the year at their highest level in 17 months to close at \$54 dollars per barrel. The U.S. dollar soared in the fourth quarter, hitting a multi-year high versus the euro and the yen.

Interest rates continued to fall through the first half of the year, sharply following the news of the referendum in the U.K. In the U.S. interest rates rose sharply in the fourth quarter, driven by encouraging economic data and worries that the pro-growth agenda put forth by President Trump would have an inflationary effect. In a widely anticipated move, the Fed raised the fed funds rate 25 bps to a range of 0.50% - 0.75% in December. Broad fixed income markets, as measured by the Barclays Aggregate Index, managed to gain 2.65% for the year. The private real estate market, as measured by the NCREIF Property Index, continued its impressive upward trajectory and gained 7.97% during the year. The NCREIF Timberland Index returned 2.59% while the Bloomberg Commodity index bounced back after a difficult 2015, returning 11.77%.

As noted in the Schedule of Investment Results, the Fund generated a total return of 7.3% for the year ended December 31, 2016, which trailed the 8.5% return of the Fund's target benchmark (the Weighted Index). In aggregate, active management detracted value during the year, particularly in large and small cap equities.

Yours truly,



Paul Erlendson
Callan Associates Inc.
Senior Vice President



Gordon Weightman, CFA
Callan Associates Inc.
Vice President

Investment Policy Summary

Strategic Plan: Assets of the Wichita Employees' and Police and Fire Retirement Systems (Fund) are invested in a diversified mix of domestic and international equities, domestic and international fixed income securities, real estate, timber, commodities and cash equivalents. The Fund is overseen by the Joint Investment Committee (JIC), comprised of the President of each Board, two elected members from each Board, two City Council appointees from each Board and a City Manager's designee.

Investment Policies: The duties of the Boards include, but are not limited to, approving the asset allocation plan and investment policy contained in the Strategic Plan, annual performance review of the investment portfolio and the hiring of a common financial consultant and actuary.

The duties of the JIC include, but are not limited to, making recommendations to the Boards on an asset allocation plan, an investment policy and the hiring of a common financial consultant and actuary; quarterly performance review of the investment portfolio; and the retention and termination of the Fund's investment managers and the custodial bank.

The assets of the Fund are managed solely in the interest of each System's participants and beneficiaries. Fund assets are allocated to professional investment managers who are given full investment discretion with respect to assets under their management, subject to mandated investment guidelines. The following minimum standards are set for investment managers:

1. The investment firm must have \$500 million or more under management;
2. The investment management firm must have five years of performance history;
3. The Fund's portfolio with the investment manager shall not constitute more than 10% of the investment manager's total portfolio.

Investment Objectives: The goal of the Fund is to ensure sufficient resources to meet or exceed benefit obligations. The related investment objectives are, first, to preserve and, second, to increase the capital value of the Fund. In pursuing these objectives, the Boards will endeavor to earn the maximum total return on assets consistent with maintaining a prudent level of risk. In investing and reinvesting monies in the Fund, there shall be exercised the judgment and care under the circumstances then prevailing which people of prudence, discretion and intelligence exercise in the management of their own affairs.

Total Fund returns are compared to a blended target index composed of market indexes weighted to the applicable asset class median. As of December 31, 2016, the blended target consisted of the following:

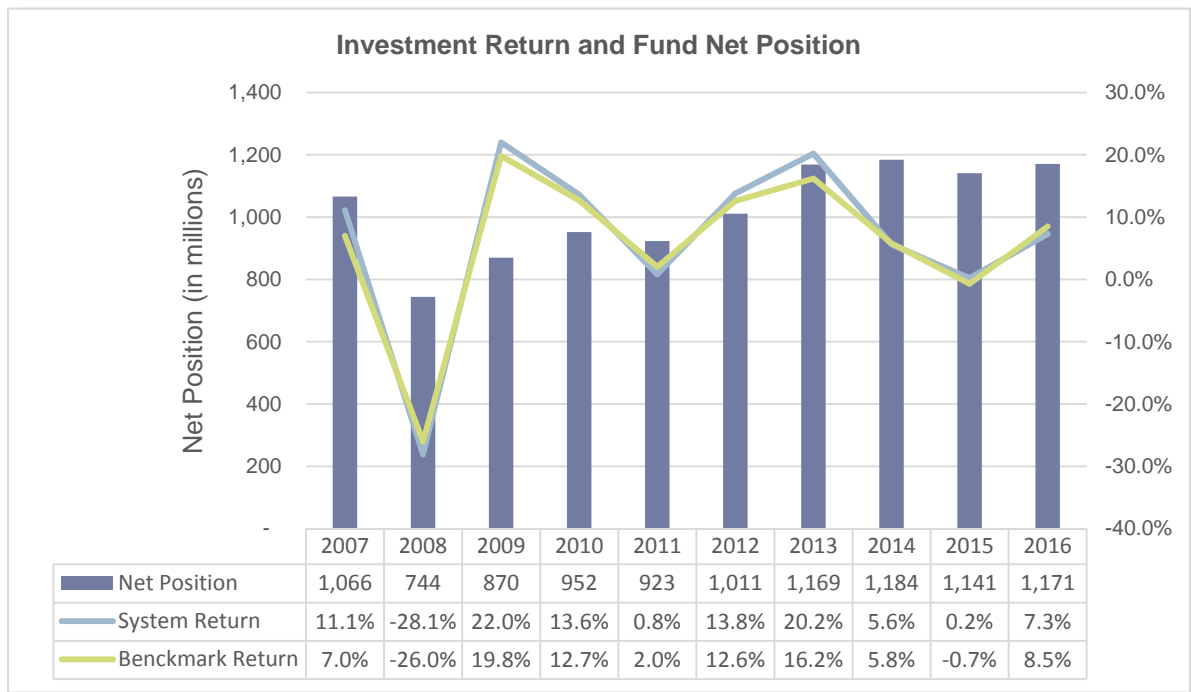
| Asset Class | Target Allocation | Relevant Index |
|----------------------------|-------------------|--|
| Broad US equity | 31% | Russell 1000 Index |
| Broad US equity | 8% | Russell 2000 Index |
| Broad international equity | 26% | Morgan Stanley Capital International, All Country World ex-U.S. (MSCI ACWI ex-U.S. IMI), Investable Market Index |
| Broad US fixed income | 19% | Bloomberg Aggregate Bond Index |
| Real estate | 7% | National Council of Real Estate Investment Fiduciaries (NCREIF) Total Index |
| Timber | 5% | National Council of Real Estate Investment Fiduciaries (NCREIF) Timberland Index |
| Commodities | 3% | Bloomberg Commodity Index |
| Cash | 1% | Treasury Bills 90 Day |
| Total | 100% | |

The Boards expect the Fund's overall returns to be less volatile than the relevant market indices. The Fund's long-term objective is to achieve an annualized rate of return that is 4.5% higher than the Consumer Price Index of All Urban Consumers (CPI-U).

Each equity and fixed income manager's total fund return on a time-weighted basis is compared to a universe of managers employing a similar investment style. Performance relative to a manager's style group is expected to be above median in three of five calendar years, and to be at or above the 40th percentile over rolling five-year periods.

Investment Performance

The accompanying chart illustrates annual portfolio investment performance compared to the benchmark and changes in the Fund's net position based on asset class allocations at year-end. Positive returns, beginning in 2003 and continuing through 2007, are responsible for increasing the Fund's net position. After a volatile investment environment in 2008, returns in 2009 through 2013 helped stabilize the fund. The 2016 Fund return of 7.3% trailed the benchmark return of 8.5%. However, the Fund's net position increased by \$30.2 million, or 2.7%.



The accompanying table illustrates the fund performance compared with plan target and relevant index comparisons.

| | Annualized Returns ¹ | | | |
|--------------------------------------|---------------------------------|---------|---------|---------|
| | 1 year | 3 years | 5 years | 7 years |
| Total Portfolio: | | | | |
| Fund performance ² | 7.30% | 4.32% | 9.20% | 8.60% |
| Fund target performance ³ | 8.50% | 4.40% | 8.30% | 7.70% |
| Domestic equities: | | | | |
| Domestic equity | 10.81% | 7.31% | 14.53% | 12.98% |
| Large-cap equity | 9.27% | 7.83% | 14.65% | 12.76% |
| Small-cap equity | 16.99% | 5.60% | 14.15% | 13.81% |
| International equities | 4.30% | (0.64%) | 6.26% | 4.24% |
| Domestic fixed income: | | | | |
| Domestic fixed income | 3.45% | 3.51% | 3.22% | 4.70% |
| Nominal domestic fixed income | 3.50% | 3.76% | 3.56% | 4.94% |
| Real estate | 7.60% | 12.23% | 13.12% | 15.15% |
| Timber | 1.25% | 3.72% | 4.55% | - |
| Commodities | 15.89% | - | - | - |
| Cash | 0.15% | 0.05% | 0.04% | 0.04% |

¹ Performance returns are calculated using a time-weighted return on fair values.

² Performance is gross of fees. Timber was funded after January, 2011. Commodities were funded in 2014.

³ Fund target performance is as follows:

(a) From 04/01/04 until 12/31/06; 38% S&P 500 Index; 9% Russell 2000 Index; 20% Morgan Stanley Capital International All Country World (ex-U.S.) Index; 28% Barclays Capital Aggregate Bond Index; 5% NCREIF Total Property Index.

(b) From 01/01/07 until 12/31/2010; 38% S&P 500 Index; 9% Russell 2000 Index; 20% Morgan Stanley Capital International EAFE Index; 28% Barclays Capital Aggregate Bond Index; 5% NCREIF Total Property Index.

(c) From 01/01/11 until 09/30/2011; 32% Russell 1000 Index; 9% Russell 2000 Index; 20% Morgan Stanley Capital International All Country World (ex-U.S.) Index; 28% Barclays Capital Aggregate Bond Index; 5% NCREIF Total Property Index.

(d) From 10/01/11 until 09/30/16; 32% Russell 1000 Index; 8% Russell 2000 Index; 22% Morgan Stanley Capital International All Country World (ex-U.S.) Index; 22% Barclays Capital Aggregate Bond Index; 5% NCREIF Total Property Index; 5% NCREIF Timberland Index; 3% Barclays Capital U.S. TIPS Index; 3% Dow Jones-UBS Commodity Index.

(e) From 10/01/16 until present; 31% Russell 1000 Index; 8% Russell 2000 Index; 26% Morgan Stanley Capital International All Country World (ex-U.S.) Index; 19% Bloomberg Aggregate Index; 7% NCREIF Total Property Index; 5% NCREIF Timberland Index; 3% Bloomberg Commodity Trust Index; 1% 3-month Treasury Bill.

Asset Allocation

The Wichita Employees' and the Police and Fire Retirement Boards believe that a diversified portfolio aids in the preservation of investment principal. Growth with limited risk is the Fund's objective. The Boards established the Joint Investment Committee (JIC) to manage the assets of both Retirement Systems. Asset allocation, in conjunction with investment manager selection, has a significant impact on investment performance. The Committee is responsible for recommending an Asset Allocation Plan developed with the assistance of Callan Associates, Inc., the Boards' financial consultant.

The Boards review the adopted Asset Allocation Plan at least every 3 years. In 2016, the JIC conducted an Asset-Liability Study to determine whether asset classes should be added, removed, or changed from the existing asset

mix. The Boards' financial consultant assisted with asset modeling to define appropriate capital market and liability assumptions to create asset mix alternatives that help simulate financial conditions, define risk tolerance, and identify the appropriate target mix for the portfolio. After a thorough review, the JIC made the following asset allocation changes: (1) eliminated the 3% allocation in the Treasury Inflation Protected Securities (TIPS) fund; (2) reduced domestic equity exposure by 1%; (3) reduced fixed income exposure by 3%; (4) increased the cash position by 1%; (5) increased international equities by 4%; and (6) increased the real estate allocation by 2% in the portfolio. The implementation of the changes began in September, 2016, and will be completed as of December 31, 2017.

The Boards' commitment to the adopted Asset Allocation Plan, which ensures a diversified portfolio, is especially important to minimize the Fund's exposure to market volatility and to help preserve sufficient funding for future generations. As of December 31, 2016, 66.9% of the Fund's assets were invested in equities, 18.0% in fixed income, 6.4% in real estate, 4.7% in timber and 3.0% in commodities and 1.0% in cash. The accompanying table displays the Fund's target and actual asset allocations on December 31, 2016.

| Asset Class | Asset Allocation | | | |
|-----------------------------|----------------------|--------|----------------------|--------|
| | Minimum ¹ | Target | Maximum ¹ | Actual |
| Domestic equity: | | | | |
| Large/mid-cap | 17.50% | 20.80% | 24.00% | 23.18% |
| Large-cap passive | 8.50% | 10.40% | 11.50% | 8.55% |
| Small-cap | 7.00% | 7.80% | 9.50% | 9.20% |
| Total domestic equity | 33.00% | 39.00% | 45.00% | 40.93% |
| Domestic fixed income: | | | | |
| Active core | 6.50% | 7.60% | 8.50% | 7.08% |
| Active core plus | 6.50% | 7.60% | 8.50% | 6.93% |
| Global | 3.00% | 3.80% | 5.00% | 4.02% |
| Total domestic fixed income | 16.00% | 19.00% | 22.00% | 18.03% |
| International equity: | | | | |
| Active core | 9.00% | 10.40% | 12.00% | 10.29% |
| Passive core | 5.50% | 6.50% | 7.50% | 6.48% |
| Small-cap | 3.00% | 3.90% | 4.50% | 3.99% |
| Emerging markets | 4.50% | 5.20% | 6.00% | 5.21% |
| Total international equity | 22.00% | 26.00% | 30.00% | 25.97% |
| Real estate: | | | | |
| Core | 5.00% | 7.00% | 9.00% | 6.43% |
| Timber | 3.00% | 5.00% | 7.00% | 4.65% |
| Commodities | 2.00% | 3.00% | 4.00% | 2.99% |
| Cash | 0.00% | 1.00% | 5.00% | 1.00% |

¹ Because the styles within each asset class are more restrictive than the overall asset class, the min/max ranges for the styles within each asset class may not total the min/max for the overall asset class.

Investment Holdings

The Fund's top ten largest equity holdings by fair value and top ten largest fixed income holdings by fair value as of December 31, 2016 are summarized in the accompanying tables. A complete listing of the portfolio of investments is available from the Pension Management Office upon request.

Ten Largest Equity Holdings

As of December 31, 2016

| Holding | Fair Value | Number of Shares | Percent of Total Portfolio |
|-------------------------------|-------------------|-------------------------|-----------------------------------|
| Alphabet, Inc. Class C | \$ 8,425,959 | 10,917 | 0.72% |
| Microsoft Corporation | 7,005,166 | 112,732 | 0.59 |
| Amazon.com, Inc. | 6,672,343 | 8,898 | 0.57 |
| Apple, Inc. | 6,378,671 | 55,074 | 0.54 |
| Facebook, Inc. Class A | 5,517,223 | 47,955 | 0.47 |
| Honeywell International, Inc. | 4,682,425 | 40,418 | 0.40 |
| VISA Inc. Class A | 4,639,537 | 59,466 | 0.39 |
| Comcast Corporation Class A | 3,698,249 | 53,559 | 0.31 |
| Citigroup Inc. | 3,603,716 | 60,638 | 0.31 |
| JP Morgan Chase & Co. | 3,503,115 | 40,597 | 0.30 |
| Total | \$ 54,126,404 | 490,254 | 4.60% |

Ten Largest Fixed Income Holdings

As of December 31, 2016

| Holding | Fair Value | Number of Shares | Percent of Total Portfolio |
|---------------------|-------------------|-------------------------|-----------------------------------|
| US Treasury Bond | \$ 5,586,914 | 5,505,000 | 0.47% |
| US Treasury Note | 3,882,333 | 3,759,000 | 0.33 |
| US Treasury Bond | 2,830,767 | 2,870,000 | 0.24 |
| US Treasury Note | 2,666,856 | 2,651,688 | 0.23 |
| FNMA Pool AZ4750 | 2,308,175 | 2,247,799 | 0.20 |
| GNMA II Pool MA3520 | 2,224,919 | 2,194,265 | 0.19 |
| FNMA TBA 30 YR 3 | 2,086,161 | 2,100,000 | 0.18 |
| FNMA POOL AQ9292 | 1,959,154 | 1,900,449 | 0.17 |
| FNMA POOL AS5090 | 1,929,134 | 1,923,882 | 0.16 |
| FNMA TBA 30 YR 4 | 1,892,358 | 1,800,000 | 0.16 |
| Total | \$ 27,366,771 | 26,952,083 | 2.33% |

The tables presented on the following pages provide additional information about portfolio investments, including fair value of investment assets by type of investment, assets under management and related investment management fees by manager and brokerage commissions earned for the year ended December 31, 2016.

Investment Summary by Type of Investment

As of December 31, 2016

| Type of Investment | Fair Value | Percent of Total Portfolio |
|--|------------------|-------------------------------|
| Government short-term investment fund | \$ 30,995,008 | 2.53 % |
| Domestic fixed income: | | |
| Government securities: long-term | 34,478,825 | 2.81 |
| Corporate debt instruments: long-term | 73,589,553 | 6.00 |
| Mortgage and asset-backed securities | 48,572,097 | 3.96 |
| Total domestic fixed income, excluding commingled funds | 156,640,475 | 12.77 |
| Global fixed income, excluding commingled funds | 45,555,289 | 3.71 |
| Domestic equities: | | |
| Consumer discretionary | 46,190,101 | 3.76 |
| Consumer staples | 17,369,932 | 1.42 |
| Energy | 24,456,785 | 1.99 |
| Financial services | 77,929,756 | 6.35 |
| Health care | 54,275,799 | 4.42 |
| Industrials | 43,894,187 | 3.58 |
| Information technology | 82,151,348 | 6.70 |
| Materials | 16,462,244 | 1.34 |
| Real Estate | 3,143,508 | 0.26 |
| Telecommunications services | 1,588,540 | 0.13 |
| Utilities | 164,434 | 0.01 |
| Total domestic equities, excluding commingled funds | 367,626,634 | 29.96 |
| International equities: | | |
| Consumer discretionary | 16,292,575 | 1.33 |
| Consumer staples | 10,555,898 | 0.86 |
| Energy | 6,957,509 | 0.57 |
| Financial services | 22,958,725 | 1.87 |
| Health care | 15,832,667 | 1.29 |
| Industrials | 15,385,063 | 1.25 |
| Information technology | 9,154,071 | 0.75 |
| Materials | 9,624,818 | 0.78 |
| Real Estate | 3,481,763 | 0.28 |
| Telecommunications services | 6,091,393 | 0.50 |
| Utilities | 1,531,975 | 0.12 |
| Total international equities, excluding commingled funds | 117,866,457 | 9.60 |
| Real estate | 75,841,124 | 6.18 |
| Timber | 54,245,411 | 4.42 |
| Value of interest in pooled funds: | | |
| Target date funds | 3,999,378 | 0.33 |
| Commodities | 34,799,688 | 2.84 |
| International fixed income | 2,233,272 | 0.18 |
| High yield fixed income | 5,582,823 | 0.46 |
| Domestic equities | 99,669,244 | 8.12 |
| International equities | 182,680,802 | 14.89 |
| Total value of interest in pooled funds | 328,965,207 | 26.82 |
| Securities lending short-term collateral investment pool | 49,160,155 | 4.01 |
| Total investments | \$ 1,226,895,760 | 100.00 % |

| Investment Assets Under Management and Related Management Fees | | |
|--|------------------------|-------------------------|
| As of and for the year ended December 31, 2016 | | |
| Asset Category/ Investment Manager | Management Fees | Fair Value |
| Domestic fixed income: | | |
| Richmond Capital Management, Inc. | \$ 202,870 | \$ 81,372,771 |
| Western Asset Management Co. | 371,744 | 80,850,527 |
| SSGA ¹ U.S. TIPS Index Fund | 10,324 | - |
| SSGA ¹ Government Short-Term Investment Fund | - | 30,666,946 |
| SSGA ¹ Securities Lending Short-Term Collateral Investment Pool | - | 49,160,155 |
| Total domestic fixed income | 584,938 | 242,050,399 |
| Global fixed income: | | |
| Western Asset Management | 8,039 | 2,233,272 |
| Standish Mellon Asset Management | 175,657 | 45,555,289 |
| Total global fixed income | 183,696 | 47,788,561 |
| Domestic equity: | | |
| Barrow, Hanley, Mewhinney & Strauss, Inc. | 609,894 | 135,710,022 |
| Boston Partners Asset Management | 440,656 | 53,337,804 |
| Fred Alger Management, Inc. | 569,484 | 128,921,922 |
| Peregrine Capital Management | 436,962 | 49,651,892 |
| Voya Investment Management Co. | - | 4,994 |
| SSGA ¹ S&P 500 Flagship Fund | 35,350 | 99,669,244 |
| Total domestic equity | 2,092,346 | 467,295,878 |
| International equity: | | |
| Mondrian Investment Partners, Limited | - | 65 |
| Fidelity Investment Asset Mgmt | 569,088 | 117,866,392 |
| SSGA ¹ MSCI World-Ex-U.S. Index | 61,821 | 75,478,328 |
| Brandes Investment Partners | 395,345 | 46,552,884 |
| AQR Emerging Markets Index Fund | 373,992 | 60,649,590 |
| Total international equity | 1,400,246 | 300,547,259 |
| Real estate: | | |
| RREEF America REIT II | 307,553 | 33,435,242 |
| RREEF America REIT III | 10,535 | 1,088,437 |
| UBS Trumbull Property Fund | 349,246 | 41,317,445 |
| Total real estate | 667,334 | 75,841,124 |
| Timber: | | |
| Molpus Woodlands Fund III | 255,451 | 25,462,503 |
| Molpus Woodlands Fund IV | 166,636 | 28,782,908 |
| Total timber | 422,087 | 54,245,411 |
| Commodities: | | |
| Wellington | 247,184 | 34,799,688 |
| Defined contribution pooled funds: | | |
| SSGA ¹ Target Date Funds | - | 3,999,378 |
| SSGA ¹ Cash Series Prime Fund CL C | - | 328,062 |
| Total defined contribution pooled funds | - | 4,327,440 |
| Total | \$ 5,597,831 | \$ 1,226,895,760 |

¹ State Street Global Advisors

| Schedule of Brokerage Commissions | | | | |
|---|------------------------------|-----------------------------|---------------------------------|-----------------------------|
| For the year ended December 31, 2016 | | | | |
| Brokerage Firm | Total Commissions | Number of Shares | Commission per Share | Percent of Total |
| Goldman Sachs + Company | \$ 28,946 | 9,028 | \$ 3.20626 | 8.41% |
| Convergex LLC | 28,198 | 838,113 | 0.03364 | 8.20 |
| J.P. Morgan Securities Inc. | 14,001 | 506,201 | 0.02766 | 4.07 |
| Frank Russell Sec/Broadcort Cap Clearing | 12,652 | 352,062 | 0.03594 | 3.68 |
| Credit Suisse Securities (Europe) Ltd | 12,444 | 1,136,549 | 0.01095 | 3.62 |
| Weeden + Co. | 10,373 | 347,135 | 0.02988 | 3.01 |
| Goldman Sachs International | 9,747 | 815,524 | 0.01195 | 2.83 |
| Merrill Lynch International | 9,703 | 841,171 | 0.01153 | 2.82 |
| Morgan Stanley And Co. International | 8,333 | 962,263 | 0.00866 | 2.42 |
| Janney Montgomery, Scott Inc | 8,052 | 228,064 | 0.03530 | 2.34 |
| Citigroup Global Markets Limited | 7,129 | 279,382 | 0.02552 | 2.07 |
| Btig, LLC | 7,061 | 199,672 | 0.03536 | 2.05 |
| Sanford C Bernstein Co LLC | 6,742 | 289,035 | 0.02332 | 1.96 |
| Fred Alger & Co, Inc | 6,621 | 221,271 | 0.02992 | 1.92 |
| Credit Suisse Securities (Usa) LLC | 6,519 | 392,996 | 0.01659 | 1.89 |
| Goldman Sachs + Co | 6,273 | 256,149 | 0.02449 | 1.82 |
| Jp Morgan Securities Plc | 6,042 | 307,964 | 0.01962 | 1.76 |
| Liquidnet Inc | 5,377 | 312,254 | 0.01722 | 1.56 |
| Ubs Securities LLC | 5,278 | 272,093 | 0.01940 | 1.53 |
| Rafferty Capital Markets LLC | 4,977 | 139,863 | 0.03558 | 1.45 |
| Barclays Capital Le | 4,493 | 161,279 | 0.02786 | 1.31 |
| Ubs Limited | 4,466 | 158,869 | 0.02811 | 1.30 |
| Jonestrading Institutional Services LLC | 4,455 | 132,139 | 0.03372 | 1.29 |
| Merrill Lynch Pierce Fenner + Smith Inc | 4,438 | 396,932 | 0.01118 | 1.29 |
| Bny Convergex Ljr | 4,183 | 125,976 | 0.03321 | 1.22 |
| Deutsche Bank Securities Inc | 3,906 | 203,428 | 0.01920 | 1.14 |
| Cs First Boston (Hong Kong) Limited | 3,815 | 338,106 | 0.01128 | 1.11 |
| Exane S.A. | 3,723 | 120,987 | 0.03078 | 1.08 |
| Ubs Ag | 3,630 | 491,580 | 0.00738 | 1.05 |
| Rbc Capital Markets | 3,546 | 148,673 | 0.02385 | 1.03 |
| Macquarie Bank Limited | 3,490 | 302,022 | 0.01155 | 1.01 |
| Other firms (Includes 176 brokerage firms, each contributing less than 1% of total | 95,467 | 85,468,669 | 0.00112 | 27.75 |
| Total brokerage commissions | \$ 344,080 | 96,755,449 | 0.00291 | 100.0% |

ACTUARIAL SECTION



Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

June 22, 2017

The Retirement Boards
Wichita Employees' Retirement System and
Police and Fire Retirement System of Wichita, Kansas
455 North Main Street, 12th Floor
Wichita, Kansas 67202

RE: Certification of December 31, 2016 Actuarial Valuations

Dear Board Members:

We certify that the information included herein and contained in the 2016 Actuarial Valuation Reports is accurate and fairly presents the actuarial position of the Wichita Employees' Retirement System (WER) and the Police and Fire Retirement System of Wichita, Kansas (WPF) as of December 31, 2016.

All calculations have been made in conformity with generally recognized and accepted actuarial principles and practices, and with applicable Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, the results presented comply with the requirements of the City ordinances, where applicable, the Internal Revenue Code, and the Statements of the Governmental Accounting Standards Board. The undersigned are independent actuaries who are experienced in performing valuations for public retirement systems. They are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Actuarial Valuations

The primary purpose of the actuarial valuation is to determine the City's contribution rate to fund each System on an actuarial basis, to describe the current financial condition of the System, and to analyze changes in the Systems' financial condition.



Actuarial computations, based on the actuarial valuation performed as of December 31, 2016, were also prepared for purposes of fulfilling financial accounting requirements for the Systems under Governmental Accounting Standards Board Number 67 (GASB 67). The assumptions used in the funding valuations were also used for GASB 67 reporting, with the exception of the discount rate which is based on the System's long-term rate of return. The actuarial valuation uses an investment return assumption of 7.75%, which is net of administrative expenses. The GASB 67 calculations use a discount rate of 7.90% which is the long-term expected rate of return prior to adjustment for administrative expenses.

Financing Objective of the Systems

The funding objective of each Retirement System is to establish and receive contributions which:

- when expressed as percent of active member payroll, will remain approximately level from generation to generation of Wichita citizens, and
- when combined with present assets and future investment returns will be sufficient to meet the financial obligations of the Systems to present and future retirees and beneficiaries.

The financial objective is addressed within the annual actuarial valuations. The valuation process develops contribution rates that are sufficient to fund the plan's current normal cost (i.e. the costs assigned by the valuation method to the year of service about to be rendered), as well as to fund unfunded actuarial liabilities as level percent of active member payroll in future years. The most recent annual actuarial valuations were completed based upon membership data, asset data and plan provisions as of December 31, 2016. For both the Wichita Employees' Retirement System and the Police and Fire Retirement System of Wichita, Kansas, actuarial liabilities exceeded valuation assets. This difference, called the unfunded actuarial liability, was \$44.2 million for the Wichita Employees' Retirement System and \$41.1 million for the Police and Fire Retirement System of Wichita, Kansas. The unfunded actuarial liability is amortized as a level percent of payroll over an open 20-year period in both Systems.

An asset smoothing method is used in the valuation process so actual investment experience is recognized over a period of time. On a market value basis, the rate of return on assets in 2016 was 6.7% for both Systems. As a result, the rate of return on the actuarial value of assets for 2016 was 6.2% for WER and 6.3% for WPF, both lower than the assumed rate of 7.75%. This generated an experience loss on assets for both systems. There was an experience gain of \$1.7 million on liabilities from all sources during 2016 for the Wichita Employees' Retirement System and an experience gain of \$2.6 million on liabilities for the Police and Fire Retirement System of Wichita, Kansas. The actuarial value of assets in both Systems exceeds the fair value with a difference of 5% for the Wichita Employees' Retirement System and 4% for the Police and Fire Retirement System of Wichita, Kansas. If investment returns over the next few years are at or below the assumed rate of return of 7.75%, the deferred investment losses will be recognized and contribution rates can be expected to increase.



On the basis of the 2016 valuations, it is our opinion that the Retirement Systems are meeting their basic financial objectives and continue to be in sound condition in accordance with the actuarial principles of the level percent of payroll financing.

Benefit Provisions

The benefit provisions used in the actuarial valuations are described on pages 45 to 48 of each of the valuation reports for the Wichita Employees' Retirement System and the Police and Fire Retirement System of Wichita, Kansas.

Data

In preparing the December 31, 2016 actuarial valuations, we have relied upon member and asset data provided by the Pension Manager. We have not subjected this data to any auditing procedures, but have examined the data for reasonableness and for consistency with prior years' data. If the underlying data or information is inaccurate or incomplete, our calculations may need to be revised.

Actuarial Methods and Assumptions

Funding valuations and GASB 67 calculations are prepared for each System annually, as of December 31 of each year, the last day of the System's plan and fiscal year.

The actuarial methods and assumptions used in the valuations have been selected by the Board of Trustees of the Systems based upon the analysis and advice of the actuary and other professionals. These assumptions and methods may be found on pages 49 to 54 of the Wichita Employees' Retirement System valuation report and pages 49 to 53 for the Police and Fire Retirement System of Wichita, Kansas valuation report. The assumptions are based on a study of actuarial experience for the five years ending December 31, 2013 that was completed in 2014. The Board of Trustees has sole authority to determine the actuarial assumptions used for the plan.

The actuarial assumptions and methods used in the valuations meet the parameters set by Actuarial Standards of Practice (ASOPs), issued by the Actuarial Standards Board, and generally accepted accounting principles (GAAP) applicable in the United States of America as promulgated by the Governmental Accounting Standards Board (GASB). In our opinion, the actuarial assumptions used are appropriate for purposes of the funding valuation and for GASB 67 purposes, are individually reasonable, are related to the experience of the Systems, and offer the best estimate of anticipated experience. Nevertheless, the emerging costs will vary from those presented in the valuation reports to the extent actual experience differs from that projected by the actuarial assumptions.

The actuary prepared the following supporting schedules that are included in the Comprehensive Annual Financial Report. The items in the Actuarial Section can be found in the valuation report while the items in the Financial Statements Section can be found in the GASB 67 report.



Actuarial Section

Summary of Actuarial Methods and Assumptions
Schedule of Active Member Valuation Data
Retirants and Beneficiaries Added To and Removed From Rolls
Solvency Test
Derivation of System Experience Gain/(Loss)
Schedule of Funding Progress

Financial Statements Section

Calculation of the Total Pension Liability and Net Pension Liability
Sensitivity Analysis of the Net Pension Liability
Schedule of Employer Contributions
Schedule of Changes in the Employers' Net Pension Liability

Retirement System staff prepared the schedules shown in the Statistical Section of the report, based in part upon the material prepared by the actuary.

I, Patrice A. Beckham, FSA, am a Member of the American Academy of Actuaries and a Fellow of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

I, Brent A. Banister, FSA, am a Member of the American Academy of Actuaries and a Fellow of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Sincerely,

A handwritten signature in blue ink that reads 'Patrice Beckham'.

Patrice A. Beckham, FSA, EA, FCA, MAAA
Principal and Consulting Actuary

A handwritten signature in blue ink that reads 'Brent A. Banister'.

Brent A. Banister, PhD, FSA, EA, FCA, MAAA
Chief Pension Actuary

1. Wichita Employees' Retirement System

Provisions of the plan are outlined in the financial section of this report beginning on page A-19. The Plans prepare two actuarial valuations - one for funding purposes and one for accounting and financial reporting purposes under Governmental Accounting Standards Board Statement 67, *Financial Reporting for Pension Plans - an Amendment of GASB Statement No. 25*. With the exception of the discount rate used, the actuarial cost methods and assumptions used for financial reporting purposes are consistent with those utilized for funding purposes.

A. Actuarial Cost Method

The actuarial cost method is a procedure for allocating the actuarial present value of pension plan benefits and expenses to time periods. The method used for the valuation is known as the Entry Age Normal actuarial cost method and has the following characteristics:

- The annual normal costs for each individual active member are sufficient to accumulate the value of the member's pension at time of retirement, and
- Each annual normal cost is a constant percentage of the member's year-by-year projected covered compensation.

The Entry Age Normal actuarial cost method allocates the actuarial present value of each member's projected benefits on a level basis over the member's assumed pensionable compensation rates between the entry age of the member and the assumed exit age.

The portion of the actuarial present value of retirement system benefits allocated to the valuation year is called the normal cost. The portion of the actuarial present value not provided for by the actuarial present value of future normal costs is called the actuarial liability. Deducting actuarial assets from the actuarial liability determines the unfunded actuarial liability (or surplus). The Wichita Employees' Retirement System (WERS) had an unfunded actuarial liability of \$44.2 million as of December 31, 2016.

B. Actuarial Assumptions Used for Valuations

Retirement System contribution requirements and actuarial present values are calculated by applying experience assumptions to the benefit provisions and participant information of the Retirement System using the actuarial cost method. These assumptions were proposed by the Fund's actuary following the completion of an experience study covering the period January 1, 2009 through December 31, 2013, and adopted by the Board on September 17, 2014. An experience study is performed every five years.

The actuarial valuation of assets is based upon the "Expected Value plus 25%" method, which levels the effects of fair value fluctuations by recognizing 25% of the difference between the expected actuarial value and the fair value of assets. The Board first adopted this methodology for the December 31, 2002 valuation. Actuarial gains and losses reduce or increase the unfunded actuarial liability or surplus, which is amortized over a rolling 20-year amortization period.

Long-Term Rate of Return: The investment return rate, net of investment expenses and administrative expenses, used for the actuarial valuation performed for funding purposes is 7.75% per year, compounded annually. This rate consists of 3.25% in recognition of long-term price inflation and 4.50% in recognition of a real rate of return over price inflation. This assumption, used to equate the value of payments due at different points in time, was adopted by the Board and was first used for the December 31, 1981 valuation, although the allocation between inflation and real return has changed periodically, most recently in 2014.

The 7.90% rate of return used for accounting purposes is based on the same underlying data as the rate used for funding purposes. However, the rate used for accounting purposes represents investment return, net of investment expenses. Administrative expenses are accounted for separately, consistent with the requirements of GASB Statement No. 67.



Salary Projections: These assumptions are used to project current salaries to determine average annual compensation. They consist of the same inflation component used for the investment return assumption, a component reflecting productivity and the competition from other employers for personnel, and a years-of-service component to reflect promotion and longevity increments.

Salary increases are assumed to occur mid-year. The salary increase assumptions are expected to produce 4.00% annual increases in active member payroll (the inflation and productivity base rate), given a constant active member group size. This is the same payroll growth assumption used to amortize the unfunded actuarial liability. The rate of return over assumed wage growth is 3.75% per year. These assumptions were first used for the December 31, 2014 valuation. Assumptions about annual rates of salary increases are summarized in the accompanying table.

| Years of Service | Inflation Component | Productivity Component | Merit and Longevity | Total |
|------------------|---------------------|------------------------|---------------------|-------|
| 1 | 3.25% | 0.75% | 3.20% | 7.20% |
| 2 | 3.25 | 0.75 | 3.00 | 7.00 |
| 3 | 3.25 | 0.75 | 2.80 | 6.80 |
| 4 | 3.25 | 0.75 | 2.60 | 6.60 |
| 5 | 3.25 | 0.75 | 2.40 | 6.40 |
| 6 | 3.25 | 0.75 | 2.20 | 6.20 |
| 7 | 3.25 | 0.75 | 2.00 | 6.00 |
| 8 | 3.25 | 0.75 | 1.80 | 5.80 |
| 9 | 3.25 | 0.75 | 1.70 | 5.70 |
| 10 | 3.25 | 0.75 | 1.60 | 5.60 |
| 11 | 3.25 | 0.75 | 1.50 | 5.50 |
| 12 | 3.25 | 0.75 | 1.40 | 5.40 |
| 13 | 3.25 | 0.75 | 1.30 | 5.30 |
| 14 | 3.25 | 0.75 | 1.20 | 5.20 |
| 15 | 3.25 | 0.75 | 1.06 | 5.06 |
| 16 | 3.25 | 0.75 | 0.92 | 4.92 |
| 17 | 3.25 | 0.75 | 0.78 | 4.78 |
| 18 | 3.25 | 0.75 | 0.64 | 4.64 |
| 19 | 3.25 | 0.75 | 0.50 | 4.50 |
| 20 | 3.25 | 0.75 | 0.50 | 4.50 |
| 21 | 3.25 | 0.75 | 0.50 | 4.50 |
| 22 | 3.25 | 0.75 | 0.50 | 4.50 |
| 23 | 3.25 | 0.75 | 0.50 | 4.50 |
| 24 | 3.25 | 0.75 | 0.50 | 4.50 |
| 25 | 3.25 | 0.75 | 0.50 | 4.50 |
| >25 | 3.25 | 0.75 | 0.25 | 4.25 |

Annual Post-Retirement Benefit Increases: Retirees in Plan 1 are entitled to annual post-retirement benefit increases of 3% of their original benefit after 12 months of retirement. Retirees in Plan 2 are entitled to annual post-retirement benefit increases of 2% of their original benefit after 12 months of retirement. Post-retirement benefit increases are not compounded.

Rates of Retirement and Deferred Retirement Option Plan (DROP) Elections: The rates displayed in the accompanying table are used to measure the probability of eligible members retiring under either the regular retirement provisions or the Deferred Retirement Option Plan (DROP). In addition, the following assumptions apply to members in this category:

- Plan 2: 70% of members with 33.33 or more years of service that are at least age 62 were assumed to elect the DROP with an average DROP period of 36 months.

- All members of the retirement system were assumed to retire on or before age 70. Deferred vested members are assumed to retire at age 62. This assumption was first used in the December 31, 2014 actuarial valuation.

Marriage: Seventy percent of non-retired members were assumed to be married for purposes of death benefits. In each case, the male was assumed to be three years older than the female.

Sick Leave: Accumulated unused sick leave is converted to service credits for the purpose of computing annual benefits. The calculated normal retirement benefits were increased by 2.5% to account for the inclusion of unused sick leave in the calculation of service credit. This assumption was last revised with the December 31, 2014 valuation.

Forfeiture of Vested Benefits: A percentage of the actuarial present value of vested termination benefits is assumed to be forfeited by a withdrawal of accumulated contributions. This percentage is applied individually based on years of service. The data in the accompanying table was first used for the December 31, 2004 actuarial valuation.

| Years of Service | Percent Forfeiting |
|------------------|--------------------|
| Less than 15 | 60% |
| 15-19 | 40 |
| 20-24 | 20 |
| 25 or more | - |

Plan 3 Transfer: Plan 3 (defined contribution plan) members are assumed to elect Plan 2 if they acquire seven years of service. An actuarial reserve is held for the difference between the fair and actuarial value of assets. This assumption was last revised for the December 31, 2004 valuation.

Mortality Assumptions: This assumption is used to measure the probabilities of members dying before retirement and the probabilities of each pension payment being made after retirement. As summarized in the following table, the RP-2000 tables are used, with generational mortality. This table was first used for the December 31, 2004 actuarial valuation.

| | |
|---------------------------------|---|
| Pre-retirement mortality rates | based on the RP-2000 Employee Table (ages set forward 2 years for males, 0 for females) with adjustments for mortality improvements based on Scale AA. |
| Post-retirement mortality rates | based on the RP-2000 Healthy Annuitant Table (ages set forward 2 years for males, 0 for females) with adjustments for mortality improvements based on Scale AA. |
| Disabled mortality rates | based on the RP-2000 Disabled Table for males and females, as appropriate, with adjustments for mortality improvements based on Scale AA. |

Rates of Separation from Active Membership: This assumption measures the probabilities of a member terminating employment. The rates do not apply to members who are eligible to retire. Annual probabilities of terminating are summarized in the accompanying table. This assumption was last revised for the December 31, 2014 valuation.

Vested Deferred Pensions: Amounts are assumed to increase during the deferral period to 4.0% per year, compounded annually. This assumption was first used in the December 31, 2009 valuation.

| Years of Service | Annual Probability of Terminating |
|------------------|-----------------------------------|
| 0 | 13.00% |
| 1 | 13.00 |
| 2 | 11.00 |
| 3 | 9.00 |
| 4 | 8.00 |
| 5 | 7.00 |
| 6 | 6.00 |
| 7 | 5.00 |
| 8-12 | 4.50 |
| 13 | 4.00 |
| 14 | 3.50 |
| 15 | 3.00 |
| 16 | 2.75 |
| 17 | 2.50 |
| 18 | 2.50 |
| 19 | 2.25 |
| 20 or more | 2.00 |

C. Actuarial Tables

Several tables are presented on the following pages to provide information about active members of the Wichita Employees' Retirement System, as well as retirees and beneficiaries. These tables also present information about the solvency of the plan, system experience and funding progress.

Active Member Valuation Data

| Valuation date | Number of Members | | | | Annual Payroll (in thousands) | Average Annual Pay | Percentage Change in Average Annual Pay |
|----------------|-------------------|--------|---------------------|-------|-------------------------------|--------------------|---|
| | Plan 1 | Plan 2 | Plan 3 ¹ | Total | | | |
| 12/31/2007 | 113 | 947 | 838 | 1,898 | 78,736 | 41,484 | 3.5 |
| 12/31/2008 | 92 | 958 | 852 | 1,902 | 81,580 | 42,892 | 3.4 |
| 12/31/2009 | 80 | 998 | 740 | 1,818 | 82,704 | 45,492 | 6.1 |
| 12/31/2010 | 61 | 993 | 661 | 1,715 | 79,636 | 46,435 | 2.1 |
| 12/31/2011 | 31 | 916 | 611 | 1,558 | 75,444 | 48,424 | 4.3 |
| 12/31/2012 | 26 | 950 | 527 | 1,503 | 70,783 | 47,094 | (2.7) |
| 12/31/2013 | 15 | 957 | 517 | 1,489 | 70,952 | 47,651 | 1.2 |
| 12/31/2014 | 8 | 989 | 520 | 1,517 | 71,391 | 47,061 | (1.2) |
| 12/31/2015 | 5 | 988 | 539 | 1,532 | 74,028 | 48,321 | 2.7 |
| 12/31/2016 | 3 | 952 | 617 | 1,572 | 77,121 | 49,059 | 1.5 |

¹ Plan 3 totals do not include Plan 3b members, who have made an irrevocable election to remain in the defined contribution plan.

Retirants and Beneficiaries Added to and Removed from Rolls

| Valuation date | Added to Roll | | Removed from Roll | | Year-End Roll | | Average Pension | Percentage Change in Average Pension |
|----------------|---------------|------------------------------|-------------------|------------------------------|---------------|------------------------------|-----------------|--------------------------------------|
| | No. | Annual Pensions ¹ | No. | Annual Pensions ¹ | No. | Annual Pensions ¹ | | |
| 12/31/2007 | 77 | 1,763,901 | 47 | 665,077 | 1,132 | 25,757,557 | 22,754 | 3.8 |
| 12/31/2008 | 79 | 1,879,045 | 44 | 693,343 | 1,167 | 27,520,308 | 23,582 | 3.6 |
| 12/31/2009 | 66 | 1,338,875 | 52 | 708,830 | 1,181 | 28,730,505 | 24,327 | 3.2 |
| 12/31/2010 | 71 | 1,847,020 | 59 | 949,872 | 1,193 | 29,855,835 | 25,026 | 2.9 |
| 12/31/2011 | 16 | 4,305,336 | 47 | 824,103 | 1,310 | 32,885,454 | 25,103 | 0.3 |
| 12/31/2012 | 50 | 1,010,373 | 58 | 1,036,870 | 1,302 | 31,730,663 | 24,371 | (2.9) |
| 12/31/2013 | 72 | 1,676,296 | 47 | 744,036 | 1,327 | 33,294,857 | 25,090 | 3.0 |
| 12/31/2014 | 68 | 1,549,070 | 54 | 927,726 | 1,341 | 34,427,388 | 25,673 | 2.3 |
| 12/31/2015 | 90 | 1,830,381 | 51 | 1,132,754 | 1,380 | 35,726,088 | 25,888 | 0.8 |
| 12/31/2016 | 78 | 1,730,868 | 65 | 1,194,869 | 1,393 | 36,931,056 | 26,512 | 2.4 |

¹ Values are estimated based on annualized pension amounts.

Solvency Test

| Valuation date | Aggregate Actuarial Liability For: | | | Reported Valuation Assets | Portion of Actuarial Liabilities Covered by Reported Assets | | |
|----------------|------------------------------------|---|---|---------------------------|---|-----|-------|
| | (1) Active Member Contributions | (2) Retirants and Beneficiaries ¹ | (3) Active Members (Employer Financed) | | (1) | (2) | (3) |
| 12/31/2007 | 46,189,489 | 256,374,002 | 180,823,537 | 533,911,465 | 100 | 100 | 127.9 |
| 12/31/2008 | 46,541,280 | 272,176,420 | 193,655,822 | 512,583,345 | 100 | 100 | 100.2 |
| 12/31/2009 | 49,152,328 | 279,396,973 | 200,722,170 | 509,493,888 | 100 | 100 | 90.1 |
| 12/31/2010 | 50,473,365 | 293,227,477 | 196,734,871 | 516,307,845 | 100 | 100 | 87.7 |
| 12/31/2011 | 45,440,569 | 349,202,490 | 160,530,664 | 513,298,382 | 100 | 100 | 73.9 |
| 12/31/2012 | 49,519,050 | 347,350,296 | 174,936,109 | 520,320,051 | 100 | 100 | 70.6 |
| 12/31/2013 | 50,337,976 | 362,224,034 | 169,823,819 | 542,157,342 | 100 | 100 | 76.3 |
| 12/31/2014 | 51,408,059 | 369,926,908 | 168,780,115 | 560,031,764 | 100 | 100 | 82.2 |
| 12/31/2015 | 51,609,961 | 378,186,127 | 176,058,606 | 568,464,178 | 100 | 100 | 78.8 |
| 12/31/2016 | 53,587,062 | 385,231,766 | 181,400,097 | 575,971,337 | 100 | 100 | 75.6 |

¹ Includes vested and nonvested terminated members.

System Experience: For the year ended December 31, 2016, the Wichita Employees' Retirement System experienced an actuarial loss of \$8.7 million. The loss for the 2016 plan year reflects the combined impact of an actuarial net loss of \$7.0 million on the actuarial value of plan assets and an actuarial gain of \$1.7 million on liabilities. Information about the factors that contributed to the actuarial loss is presented in the following table.

| | Increase (Decrease) | | |
|--|----------------------------|----------------------------------|--|
| | Actuarial Liability (a) | Actuarial Value of Assets (b) | Unfunded Actuarial Liability (a) - (b) |
| Balances as of December 31, 2015 | \$ 605,854,694 | \$ 568,464,178 | \$ 37,390,516 |
| Changes for the year: | | | |
| Normal cost | 9,279,144 | - | 9,279,144 |
| Plan 3 members transferring to Plan 3b | (244,793) | (244,793) | - |
| Contributions | - | 12,588,071 | (12,588,071) |
| Benefit payments | (39,144,783) | (39,144,783) | - |
| Interest | 46,175,006 | 43,036,794 | 3,138,212 |
| Expected actuarial value at December 31, 2016 | 621,919,268 | 584,699,467 | 37,219,801 |
| Actual actuarial value as of December 31, 2016 | 620,218,925 | 575,971,337 | 44,247,588 |
| Actuarial gain (loss) | <u>\$ 1,700,343</u> | <u>\$ (8,728,130)</u> | <u>\$ (7,027,787)</u> |

Schedule of Funding Progress

| Valuation date | Actuarial Value of Assets (a) | Accrued Actuarial Liability (AAL) Entry Age (b) | Unfunded AAL (UAAL) (b) - (a) | Funded Ratio | Annual Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ((b)-(a))/(c) |
|----------------|-------------------------------|---|-------------------------------|--------------|----------------------------|---|
| 12/31/2007 | 533,911 | 483,387 | (50,524) | 110.5 | 78,736 | (64.2) |
| 12/31/2008 | 512,853 | 512,373 | (480) | 100.1 | 81,580 | (0.6) |
| 12/31/2009 | 509,494 | 529,271 | 19,777 | 96.3 | 82,704 | 23.9 |
| 12/31/2010 | 516,308 | 540,436 | 24,128 | 95.5 | 79,636 | 30.3 |
| 12/31/2011 | 513,298 | 555,174 | 41,876 | 92.5 | 75,444 | 55.5 |
| 12/31/2012 | 520,320 | 571,805 | 51,485 | 91.0 | 70,783 | 72.7 |
| 12/31/2013 | 542,157 | 582,386 | 40,229 | 93.1 | 70,953 | 56.7 |
| 12/31/2014 | 560,032 | 590,115 | 30,083 | 94.9 | 71,391 | 42.1 |
| 12/31/2015 | 568,464 | 605,855 | 37,391 | 93.8 | 74,028 | 50.5 |
| 12/31/2016 | 575,971 | 620,219 | 44,248 | 92.9 | 77,121 | 57.4 |

A Schedule of Employer Contributions, including a comparison of actuarially determined contributions to actual contributions made, is presented as Required Supplementary Information on page A-28 in the Financial Section of this report.

D. Summary of Benefit Provisions

Plan 1 is a closed plan, which is applicable to members employed prior to July 18, 1981 who did not elect to be converted to Plan 2. Plan 2 is applicable to members employed prior to July 18, 1981 who elected to be covered by Plan 2, those employed or re-employed on or after July 18, 1981 and before January 1, 1994, and Plan 3 members who, upon vesting, elect to become members of Plan 2. A summary of benefit provisions applicable to the plans is presented below. A more detailed description of Plan provisions is available upon request from the Pension Management Office.

Contributions:• Employee contributions:

Plan 1: 6.4% of base salary, longevity and overtime pay.

Plan 2 and Plan 3: 4.7% of base salary and longevity pay (effective February 19, 2000).

• Employer contributions:

Actuarially determined amounts which, together with employee contributions and investment earnings, will fund the obligations of the System in accordance with accepted actuarial principles.

Unused sick leave: Accumulated unused sick leave is converted to service credits for the purpose of computing annual benefits.

Normal Retirement:• Eligibility:

Plan 1: Age 60 with seven or more years of service, or any age with 30 or more years of service.

Plan 2: Age 62 with seven or more years of service.

• Benefit:

Plan 1: Years of service times 2.5% of final average salary, to a maximum of 75%.

Plan 2: Years of service times 2.25% of final average salary, to a maximum of 75%.

• Final Average Salary: Average for the three consecutive years within the last 10 years of service that produce the highest average salary.Early Retirement:• Eligibility: Age 55 with seven or more years of service.• Benefit: An amount computed as for normal retirement, but reduced for each month retirement precedes age 60 under Plan 1 and age 62 under Plan 2. The amount of reduction per month of early retirement is computed as follows:

Plan 1: A service-graduated percentage for each month retirement precedes age 60. The percentage is .05 of 1% if service is 29 years but less than 30 years, increasing by .05 of 1% for each additional year service is less than 30 years, to a maximum of .50 of 1% if service is less than 21 years.

Plan 2: An age-graduated percentage for each month retirement precedes age 62. The percentage is 0.6% for each month that the member's age precedes age 62, up to a maximum of 50.4% at age 55.

Service-Connected Disability:

- Eligibility: All Plans: No age or service requirement. Disability must be permanent and total, and precludes performance of any duties for a City position commensurate with the employee's training, experience, and education.
- Benefit:
 - Plan 1: 60% of final rate of salary.
 - Plan 2: 50% of final rate of salary.

Non-Service Connected Disability:

- Eligibility: Seven or more years of service and under age 60, Plan 1, or age 62, Plan 2. Disability must be permanent and total and preclude performance of any duties for a City position commensurate with the employee's training, experience and education.
- Benefit:
 - Plan 1: 30% of final average salary plus 1% of final average salary for each year of service in excess of seven years, to a maximum of 50%.
 - Plan 2: 25% of final rate of salary.

Deferred Retirement Option Plan (DROP):

- Eligibility: Must be eligible for retirement and elect to participate in the DROP for 1 to 60 months.
- Benefit: Benefit computed based on years of service and final average salary as of DROP election date, which is paid into member's notional DROP account during the deferral period. Member continues to make required employee contributions during the deferral period. Interest at an annual rate of 5% is credited to the notional DROP account. Voluntary termination of employment during the DROP period results in a loss of accrued interest. Balance of DROP account is payable within 90 days of actual termination of employment.

Deferred Retirement:

- Eligibility:
 - Plan 1: Termination of service with 7 or more years of service and under age 60.
 - Plan 2: Termination of service with 7 or more years of service and under age 62.
- Benefit: Deferred pensioner may apply for a reduced retirement benefit upon meeting the applicable age requirement for early retirement (55 years) or an unreduced pension upon meeting the applicable age requirement for normal retirement (60 years, Plan 1 or 62 years, Plan 2). A refund of employee contributions, plus 5% annual interest, may be elected in lieu of a retirement benefit. Retirement benefit is computed as for normal retirement. Deferred pensions are adjusted during the deferral period based on changes in the National Average Earnings Index, up to 5.5% annually.

Pre-Retirement Survivor Benefits (surviving spouse and minor child):

- Eligibility: Death of employee with seven or more years of credited service.
- Benefit: 50% of the benefit earned by the deceased employee at the time of death, plus 10% of the deceased employee's final average salary for each minor child under age 18, to a maximum of 75% of final average salary. If no surviving spouse, benefit is 20% of final average salary on account of each child to a maximum of 60% of final average salary; terminates when child reaches age 18.

Pre-Retirement Survivor Benefits (designated beneficiary): When no spouse or minor child is eligible for a survivor's benefit, the retiree may designate a beneficiary.

- Eligibility: Death of employee with seven or more years of credited service.
- Benefit: Accumulated contributions plus 5% annual interest, and one month's salary for each full year of service, not to exceed six months of salary.

Post-Retirement Survivor Benefits (surviving spouse and minor child):

- Eligibility: Spouse must have been married to retired employee for one year or more at time of death if retired after January 1, 2000. If retired prior to January 1, 2000, must have been married to retired employee at retirement. A minor child must be under age 18.
- Benefit: 50% of benefit paid to retiree at time of death, plus 10% of retiree's final average salary for each minor child under age 18, to a maximum of 75% of final average salary. If no surviving spouse, benefit is 20% of final average salary on account of each child to a maximum of 60% of final average salary; terminates when child reaches age 18. Plan 1 also includes a \$1,500 funeral benefit.

Post-Retirement Survivor Benefits (designated beneficiary): When no spouse or minor child is eligible for a survivor's benefit, the retiree may designate a beneficiary.

- Benefit: Final partial benefit due retiree through date of death plus balance, if any, of contributions and interest. Plan 1 also includes a \$1,500 funeral benefit.

Refund of Contributions:

- Eligibility: Termination of employment without eligibility for any other benefit.
- Benefit: Accumulated contributions at the time of termination, plus 5% annual interest.

3. Wichita Employees' Retirement System Plan 3 and Plan 3b

The City contributes to Wichita Employees' Retirement System Plan 3, a defined contribution pension plan, for all of its full-time civilian employees hired or rehired on or after January 1, 1994. Provisions of the plan are outlined in the financial section of this report beginning on page A-19.

A. Summary of Benefit Provisions

Because Plan 3 and Plan 3b are defined contribution plans, members of those plans are only entitled to certain limited retirement benefits as described below. In the event that a Plan 3 or Plan 3b member is granted either of these benefits, the member will be required to forfeit the balance of contributions and earnings in his or her participant account.

Service-Connected Disability:

- Eligibility: No age or service requirement. Disability must be permanent and total and preclude the performance of any duties for a City position commensurate with the employee's training, experience and education.
- Benefit: 50% of final rate of salary; or distribution of vested Plan 3 account.

Non-Service Connected Disability:

- Eligibility: Seven or more years of service and under age 62. Disability must be permanent and total and preclude the performance of any duties for a City position commensurate with the employee's training, experience and education.
- Benefit: 25% of final rate of salary; or distribution of vested Plan 3 account.

2. Police and Fire Retirement System of Wichita, Kansas

Provisions of the plan are outlined in the Financial Section of this report beginning on page A-22. The Plans prepare two actuarial valuations - one for funding purposes and one for accounting and financial reporting purposes under Governmental Accounting Standards Board Statement 67, *Financial Reporting for Pension Plans - an Amendment of GASB Statement No. 25*. With the exception of the discount rate used, the actuarial cost methods and assumptions used for financial reporting purposes are consistent with those utilized for funding purposes.

A. Actuarial Cost Method

The actuarial cost method is a procedure for allocating the actuarial present value of pension plan benefits and expenses to time periods. The method used for the valuation is known as the Entry Age Normal actuarial cost method and has the following characteristics:

- The annual normal costs for each individual active member are sufficient to accumulate the value of the member's pension at time of retirement, and
- Each annual normal cost is a constant percentage of the member's year-by-year projected covered compensation.

The Entry Age Normal actuarial cost method allocates the actuarial present value of each member's projected benefits on a level basis over the member's assumed pensionable compensation rates between the entry age of the member and the assumed exit age.

The portion of the actuarial present value of retirement system benefits allocated to the valuation year is called the normal cost. The portion of the actuarial present value not provided for by the actuarial present value of future normal costs is called the actuarial liability. Deducting actuarial assets from the actuarial liability determines the unfunded actuarial liability (or surplus). The Police and Fire Retirement System (PFRS) had an unfunded actuarial liability of \$41.1 million as of December 31, 2016.

B. Actuarial Assumptions Used for Valuations

Retirement System contribution requirements and actuarial present values are calculated by applying experience assumptions to the benefit provisions and participant information of the Retirement System, using the actuarial cost method. These assumptions were proposed by the Fund's actuary following the completion of an experience study covering the period January 1, 2009 through December 31, 2013, and adopted by the Board on September 17, 2014. An experience study is performed every five years.

The actuarial valuation of assets is based upon the "Expected Value plus 25%" method, which levels the effects of fair value fluctuations by recognizing 25% of the difference between the expected actuarial value and the fair value of assets. The Board first adopted this methodology for the December 31, 2002 valuation. Actuarial gains and losses reduce or increase the unfunded actuarial liability or surplus, which is amortized over a rolling 20-year amortization period.

Long-Term Rate of Return: The investment return rate, net of investment expenses and administrative expenses, used for the actuarial valuation performed for funding purposes is 7.75% per year, compounded annually. This rate consists of 3.25% in recognition of long-term price inflation and 4.50% in recognition of a real rate of return over price inflation. This assumption, used to equate the value of payments due at different points in time, was adopted by the Board and was first used for the December 31, 1981 valuation, although the allocation between inflation and real return has changed periodically, most recently in 2014.

The 7.90% rate of return used for accounting purposes is based on the same underlying data as the rate used for funding purposes. However, the rate used for accounting purposes represents investment return, net of investment expenses. Administrative expenses are accounted for separately, consistent with the requirements of GASB Statement No. 67.

Salary Projections: These assumptions are used to project current salaries to determine average annual compensation. They consist of the same inflation component used for the investment return assumption, a component reflecting productivity and the competition from other employers for personnel and a years-of-service component to reflect promotion and longevity increments.

Salary increases are assumed to occur mid-year. The salary increase assumptions are expected to produce 4.00% annual increases in active member payroll (the inflation and productivity base rate), given a constant active member group size. This is the same payroll growth assumption used to amortize the unfunded actuarial liability. The rate of return over assumed wage growth is 3.75% per year. This assumptions was first used for the December 31, 2014 valuation. Assumptions about annual rates of salary increases are summarized in the accompanying table.

| Years of Service | Inflation Component | Productivity Component | Merit and Longevity | Total |
|------------------|---------------------|------------------------|---------------------|-------|
| 1 | 3.25% | 0.75% | 2.75% | 6.75% |
| 5 | 3.25 | 0.75 | 2.75 | 6.75 |
| 10 | 3.25 | 0.75 | 2.75 | 6.75 |
| 15 | 3.25 | 0.75 | 2.75 | 6.75 |
| 20 | 3.25 | 0.75 | 1.00 | 5.00 |
| 25 | 3.25 | 0.75 | 1.00 | 5.00 |
| 30 | 3.25 | 0.75 | 1.00 | 5.00 |

Annual Post-Retirement Benefit Increases: Retirees in the Police and Fire Retirement System are entitled to annual post-retirement benefit increases of 2% of their original benefit after 36 months of retirement. Post-retirement benefit increases are not compounded.

Rates of Retirement and Backward Deferred Retirement Option Plan (Back DROP) Elections: The rates displayed in the accompanying table are used to measure the probability of eligible members retiring under either the regular retirement provisions or the Backward Deferred Retirement Option Plan (Back DROP). It is assumed that members who retire under service retirement provisions elect a Back DROP of up to five years which maximizes the actuarial value of the retirement benefit determined as of the retirement date. These rates were first used for the December 31, 2014 valuation.

| Years of Service (YOS) | Plans A & B | | Retirement Age | Plan C-79 | | | |
|------------------------|-------------|------|----------------|------------------|------|----------------|------|
| | Police | Fire | | Less than 30 YOS | | 30 or more YOS | |
| | | | | Police | Fire | Police | Fire |
| Less than 28 | 5% | 5% | 50 | 10% | 10% | 10% | 20% |
| 29 | 5 | 5 | 51 | 10 | 10 | 10 | 20 |
| 30 | 10 | 5 | 52 | 10 | 10 | 10 | 20 |
| 31 | 10 | 5 | 53 | 20 | 15 | 10 | 20 |
| 32 | 30 | 25 | 54 | 20 | 15 | 10 | 20 |
| 33 | 50 | 25 | 55 | 20 | 10 | 10 | 25 |
| 34 | 50 | 25 | 56 | 20 | 10 | 30 | 25 |
| 35 or more | 100 | 100 | 57 | 20 | 20 | 30 | 30 |
| | | | 58 | 20 | 15 | 30 | 50 |
| | | | 59 | 20 | 15 | 30 | 50 |
| | | | 60 or more | 100 | 100 | 100 | 100 |

Marriage: Eighty percent of non-retired members were assumed to be married for purposes of death benefits. In each case, the male was assumed to be three years older than the female.



Sick Leave: Accumulated unused sick leave is converted to service credits for the purpose of computing annual benefits. The calculated normal retirement benefits were increased by 3% to account for the inclusion of unused sick leave in the calculation of service credit. This assumption was last revised with the December 31, 2014 valuation.

Forfeiture of Vested Benefits: A percentage of the actuarial present value of vested termination benefits is assumed to be forfeited by a withdrawal of accumulated contributions. This percentage is applied individually based on years of service. The data in the accompanying table was first used for the December 31, 2014 actuarial valuation.

| Years of Service | Percent Forfeiting |
|------------------|--------------------|
| 10-14 | 75% |
| 15-19 | 10 |
| 20 or more | - |

Mortality Assumptions: This assumption is used to measure the probabilities of members dying before retirement and the probabilities of each pension payment being made after retirement. As summarized in the following table, the RP-2000 tables are used, with generational mortality. The table was first used in the December 31, 2004 actuarial valuation.

| | |
|---------------------------------|--|
| Pre-retirement mortality rates | based on the RP-2000 Employee Table for males and females, as appropriate, with adjustments for mortality improvements based on Scale AA. |
| Post-retirement mortality rates | based on the RP-2000 Healthy Annuitant Table for males and females, as appropriate, with adjustments for mortality improvements based on Scale AA. |
| Disabled mortality rates | based on the RP-2000 Disabled Table for males and females, as appropriate, with adjustments for mortality improvements based on Scale AA. |

Rates of Disability: This assumption measures the probabilities of a member receiving a disability retirement. The rates do not apply to members who are eligible to retire. The rates of recovery from disability are assumed to be zero. The accompanying table provides the assumed probability of active members becoming disabled in during the next year. These rates were first used for the December 31, 2014 valuation.

| Age | Police | Fire |
|-----|--------|-------|
| 20 | 0.09% | 0.07% |
| 25 | 0.15 | 0.12 |
| 30 | 0.30 | 0.24 |
| 35 | 0.49 | 0.39 |
| 40 | 0.69 | 0.54 |
| 45 | 0.88 | 0.70 |
| 50 | 1.08 | 0.85 |
| 55 | 1.25 | 0.91 |

Rates of Separation from Active Membership: This assumption measures the probabilities of a member terminating employment. The rates do not apply to members who are eligible to retire. This assumption was last revised for the December 31, 2014 valuation.

| Years of Service | Annual Probability of Terminating | |
|------------------|-----------------------------------|-------|
| | Police | Fire |
| 0-4 | 5.50% | 3.00% |
| 5-7 | 3.00 | 3.00 |
| 8-13 | 3.00 | 2.00 |
| 14-15 | 1.00 | 2.00 |
| 16-22 | 1.00 | - |
| More than 22 | - | - |

Vested Deferred Pensions: Amounts for Plan C are assumed to increase during the deferral period to 4.0% per year, compounded annually. This assumption was most recently revised with the December 31, 2009 valuation.

C. Actuarial Tables

Several tables are presented on the following pages to provide information about active members of the Police and Fire Retirement System, as well as retirees and beneficiaries. These tables also present information about the solvency of the plan, system experience and funding progress.

| Active Member Valuation Data | | | | | | |
|------------------------------|-------------------|-----------|-------|----------------------------------|-----------------------|--|
| Valuation date | Number of Members | | | Annual Payroll (in thousands) | Average Annual Pay | Percentage Change in Average Annual Pay |
| | Plan A | Plan C-79 | Total | | | |
| 12/31/2007 | 57 | 1,035 | 1,092 | 57,310 | 52,482 | 5.9 |
| 12/31/2008 | 47 | 1,029 | 1,076 | 60,282 | 56,024 | 6.7 |
| 12/31/2009 | 32 | 1,068 | 1,100 | 63,055 | 57,323 | 2.3 |
| 12/31/2010 | 21 | 1,068 | 1,089 | 63,077 | 57,922 | 1.0 |
| 12/31/2011 | 14 | 1,074 | 1,088 | 62,759 | 57,683 | (0.4) |
| 12/31/2012 | 11 | 1,073 | 1,084 | 64,150 | 59,179 | 2.6 |
| 12/31/2013 | 9 | 1,076 | 1,085 | 65,306 | 60,190 | 1.7 |
| 12/31/2014 | 8 | 1,060 | 1,068 | 64,572 | 60,461 | 0.1 |
| 12/31/2015 | 5 | 1,045 | 1,050 | 65,560 | 62,438 | 3.3 |
| 12/31/2016 | 4 | 1,059 | 1,063 | 66,946 | 62,979 | 0.9 |

Retirants and Beneficiaries Added to and Removed from Rolls

| Valuation date | Added to Roll | | Removed from Roll | | Year-End Roll | | Average Pension | Percentage Change in Average Pension |
|----------------|---------------|------------------------------|-------------------|------------------------------|---------------|------------------------------|-----------------|--------------------------------------|
| | No. | Annual Pensions ¹ | No. | Annual Pensions ¹ | No. | Annual Pensions ¹ | | |
| 12/31/2007 | 21 | 548,513 | 28 | 452,202 | 833 | 18,777,464 | 22,542 | 3.2 |
| 12/31/2008 | 39 | 510,543 | 32 | 417,236 | 840 | 19,492,053 | 23,205 | 2.9 |
| 12/31/2009 | 57 | 1,959,741 | 24 | 398,908 | 873 | 21,357,569 | 24,465 | 5.4 |
| 12/31/2010 | 47 | 1,439,435 | 28 | 541,662 | 892 | 22,570,141 | 25,303 | 3.4 |
| 12/31/2011 | 48 | 1,615,338 | 29 | 525,289 | 911 | 24,030,607 | 26,378 | 4.2 |
| 12/31/2012 | 33 | 1,201,800 | 23 | 435,120 | 921 | 25,226,219 | 27,390 | 3.8 |
| 12/31/2013 | 48 | 1,938,485 | 17 | 380,985 | 952 | 27,143,376 | 28,512 | 4.1 |
| 12/31/2014 | 63 | 2,400,693 | 44 | 850,741 | 971 | 29,165,652 | 30,037 | 5.3 |
| 12/31/2015 | 44 | 1,652,860 | 26 | 494,625 | 989 | 30,774,324 | 31,117 | 3.6 |
| 12/31/2016 | 31 | 1,286,489 | 33 | 629,314 | 987 | 31,914,576 | 32,335 | 3.9 |

¹ Values are estimated based on annualized pension amounts.

Solvency Test

| Valuation date | Aggregate Actuarial Liability For: | | | Reported Valuation Assets | Portion of Actuarial Liabilities Covered by Reported Assets | | |
|----------------|------------------------------------|---|---|---------------------------|---|-----|-------|
| | (1) Active Member Contributions | (2) Retirants and Beneficiaries ¹ | (3) Active Members (Employer Financed) | | (1) | (2) | (3) |
| 12/31/2007 | 53,686,866 | 230,893,426 | 183,634,348 | 480,820,001 | 100 | 100 | 106.9 |
| 12/31/2008 | 58,050,319 | 238,590,747 | 199,920,080 | 472,345,191 | 100 | 100 | 87.9 |
| 12/31/2009 | 60,326,408 | 257,298,665 | 202,309,181 | 480,555,562 | 100 | 100 | 80.5 |
| 12/31/2010 | 63,515,814 | 270,693,677 | 202,698,947 | 497,925,786 | 100 | 100 | 80.8 |
| 12/31/2011 | 66,390,179 | 293,730,691 | 202,367,017 | 510,946,217 | 100 | 100 | 74.5 |
| 12/31/2012 | 70,527,705 | 305,985,839 | 212,559,831 | 533,380,618 | 100 | 100 | 73.8 |
| 12/31/2013 | 74,238,693 | 325,096,785 | 218,412,805 | 571,261,929 | 100 | 100 | 78.7 |
| 12/31/2014 | 74,684,418 | 348,915,979 | 208,034,004 | 600,680,146 | 100 | 100 | 85.1 |
| 12/31/2015 | 77,222,492 | 364,943,124 | 212,970,051 | 620,148,816 | 100 | 100 | 83.6 |
| 12/31/2016 | 81,765,281 | 377,864,418 | 222,014,789 | 640,508,756 | 100 | 100 | 81.5 |

¹ Includes vested and nonvested terminated members.

System Experience: For the year ended December 31, 2016, the Police and Fire Retirement System experienced an actuarial loss of \$6.2 million. The loss for the 2016 plan year reflects the combined impact of an actuarial net loss of \$8.8 million on the actuarial value of plan assets and an actuarial gain of \$2.6 million on liabilities. Information about the factors that contributed to the actuarial loss is presented in the following table.

| | Increase (Decrease) | | |
|--|-------------------------|-------------------------------|--|
| | Actuarial Liability (a) | Actuarial Value of Assets (b) | Unfunded Actuarial Liability (a) – (b) |
| Balances as of December 31, 2015 | \$ 655,135,667 | \$ 620,148,816 | \$ 34,986,851 |
| Changes for the year: | | | |
| Normal cost | 14,179,256 | - | 14,179,256 |
| Contributions | - | 17,362,853 | (17,362,853) |
| Benefit payments | (35,552,267) | (35,552,267) | - |
| Interest | 50,519,962 | 47,369,845 | 3,150,117 |
| Expected actuarial value at December 31, 2016 | 684,282,618 | 649,329,247 | 34,953,371 |
| Actual actuarial value as of December 31, 2016 | 681,644,488 | 640,508,756 | 41,135,732 |
| Actuarial gain (loss) | \$ 2,638,130 | \$ (8,820,491) | \$ (6,182,361) |

Schedule of Funding Progress

| Valuation date | Actuarial Value of Assets (a) | Accrued Actuarial Liability (AAL) Entry Age (b) | Unfunded AAL (UAAL) (b) – (a) | Funded Ratio | Annual Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ((b)-(a))/(c) |
|----------------|-------------------------------|---|-------------------------------|--------------|----------------------------|---|
| 12/31/2007 | 480,820 | 468,115 | (12,705) | 102.7 | 57,310 | (22.2) |
| 12/31/2008 | 472,345 | 496,561 | 24,216 | 95.1 | 60,282 | 40.2 |
| 12/31/2009 | 480,556 | 519,934 | 39,378 | 92.4 | 63,055 | 62.5 |
| 12/31/2010 | 497,926 | 536,908 | 38,982 | 92.7 | 63,077 | 61.8 |
| 12/31/2011 | 510,946 | 562,488 | 51,542 | 90.8 | 62,759 | 82.1 |
| 12/31/2012 | 533,381 | 589,074 | 55,693 | 90.5 | 64,150 | 86.8 |
| 12/31/2013 | 571,262 | 617,748 | 46,486 | 92.5 | 65,306 | 71.2 |
| 12/31/2014 | 600,860 | 631,904 | 31,044 | 95.1 | 64,572 | 48.1 |
| 12/31/2015 | 620,149 | 655,136 | 34,987 | 94.7 | 65,560 | 53.4 |
| 12/31/2016 | 640,509 | 681,644 | 41,136 | 94.0 | 66,946 | 61.4 |

A Schedule of Employer Contributions, including a comparison of actuarially determined contributions to actual contributions made, is presented as Required Supplementary Information on page A-30 in the Financial Section of this report.

D. Summary of Benefit Provisions

Plan A is a closed plan which was applicable to members who entered the System between January 1, 1965 and December 31, 1978; and to members who entered prior to January 1, 1965 and elected Plan A coverage. Plan B is a closed plan which was applicable to members who entered the System prior to January 1, 1965 and elected Plan B coverage. Plan C-79 is an open plan which is applicable to members entering the System after December 31, 1978. A summary of benefit provisions applicable to the plans is presented below. A more detailed description of Plan provisions is available upon request from the Pension Management office.

Contributions:• Employee contributions:

Plan A: 8.0% of salary.

Plan B: 6.0% of salary.

Plan C-79: 7.0% of salary.

• Employer contributions:

Actuarially determined amounts which, together with employee contributions and investment earnings, will fund the obligations of the System in accordance with accepted actuarial principles.

Unused sick leave: Accumulated unused sick leave is converted to service credits for the purpose of computing annual benefits.

Normal Retirement:• Eligibility:

Plan A: Any age with 20 years of actual service.

Plan B: Any age with 20 years of actual service.

Plan C-79: Age 55 with 10 years of actual service, age 50 with 20 or more years of actual service, or any age with 30 years of creditable service.

• Benefit: Years of service times 2.5% of final average salary, to a maximum of 75%.

• Final Average Salary: Average for the three consecutive years within the last 10 years of service that produce the highest average salary.

Service-Connected Disability:

• Eligibility: Seven or more years of service and under age 55. Disability must be permanent and preclude employee from performing the duties of their position.

• Benefit: 75% of final salary rate if injury, 50% if disease.

• Conditions: Benefit plus earnings from gainful employment cannot exceed current salary for rank held at time of disability. Benefit is recomputed at age 55 using service retirement formula, updated final average salary, and service credit for period of disability.

Non-Service Connected Disability:

• Eligibility: Seven or more years of service and under age 55. Disability must be permanent and preclude employee from performing the duties of their position.

• Benefit: 30% of final average salary plus 1% of final average salary for each year of service in excess of seven years. Maximum is 50% of final average salary.

- Conditions: Benefit plus earnings from gainful employment cannot exceed current salary for rank held at the time of disability.

Backward Deferred Retirement Option Plan (Back DROP):

- Eligibility: Must be eligible to receive a service retirement benefit as of the Backward DROP retirement date and elect the Back DROP for a period of 1 to 60 months.
- Benefit: Under the Back DROP, the member may elect a benefit based on a retirement date up to 60 months prior to the current date. The monthly benefit is computed based on service, final average salary and benefit formula at the selected prior date. The DROP account available to the retiring member is the computed benefit multiplied by the number of months of Back DROP plus applicable post-retirement adjustments and 5% annual compounded interest.

Deferred Retirement:

- Eligibility: Vested members of C-79 who leave City service may defer their pension benefit by electing to leave their contributions in the Retirement System until they are eligible for a retirement benefit; age 55 with less than 20 years of actual service and age 50 with 20 or more years of actual service. A refund of employee contributions, plus 5% annual interest, may be elected in lieu of a retirement benefit.
- Benefit: Retirement benefit is computed as for normal retirement. Deferred pensions are indexed during the deferral period based on changes in the National Average Earnings Index, up to 5.5% annually.

Pre-Retirement Survivor Benefits Service-Connected Death:

- Eligibility: When death results from performance of duty as a fire fighter or police officer, there is no minimum service requirement. Spouse and minor children of member at the time of death are eligible for a survivor's benefit.
- Benefit: 50% of final salary plus 10% of final salary for each minor child under age 18, to a maximum of 75% of final salary. If no surviving spouse, benefit is 20% of final salary for each child to a maximum of 60% of final salary; terminates when child reaches age 18.

Pre-Retirement Survivor Benefits Non-Service-Connected Death:

- Eligibility: Spouse and minor children of member at the time of death.
 - Plan A: Three or more years of service.
 - Plan B: Twenty or more years of service.
 - Plan C-79: Three or more years of service.
- Benefit:
 - Plan A: 35% of final average salary plus 1% of final average salary for each year of service over three years to a maximum of 50% of final average salary, plus 10% of final average salary on account of each minor child under age 18 to a maximum of 66 2/3% of final average salary. If no surviving spouse, benefit is 15% of final average salary on account of each child to a maximum of 50% of final average salary; terminates when child reaches age 18.
 - Plan B: 50% of final salary.
 - Plan C-79: Identical to Plan A benefits.

Post-Retirement Survivor Benefits:

- Eligibility: Twenty or more years of service. If retired prior to January 1, 2000, surviving spouse must have been married to retired member at date of retirement. Effective January 1, 2000, surviving spouse must have been married to retired member for a minimum of 12 months at time of death.
- Benefit:
 - Plan A: 35% of final average salary plus 1% of final average salary for each year of service over three years to a maximum of 50% of final average salary, plus 10% of final average salary for each minor child under age 18 to a maximum of 66 2/3%. If no surviving spouse, 15% of final average salary for each child to a maximum of 50%.
 - Plan B: 50% of final salary to surviving spouse or if no surviving spouse pension's payable to children under age 18.
 - Plan C-79: Identical to Plan A benefits.

Funeral Benefit:

- Eligibility: Plan A, B and C-79 members who retired after November 21, 1973.
- Benefit:
 - Plan A: \$750 payable to a beneficiary. Plan A members who retired prior to November 21, 1973 are not eligible for a funeral benefit.
 - Plan B: \$750 payable to a beneficiary. Plan B members who retired between January 1, 1965 and November 21, 1973 are eligible for a \$100 funeral benefit payable to a beneficiary.
 - Plan C-79: \$750 payable to a beneficiary

Refund of Contributions:

- Eligibility: Termination of employment without eligibility for any other benefit.
- Benefit: Accumulated contributions at the time of termination plus 5% annual interest, beginning January 1, 2000.

STATISTICAL SECTION



Statistical Section Overview

This section includes detailed schedules showing trends regarding changes in the net position, including deductions from the net position for benefits and refunds beginning on page D-2, average benefit payments beginning on page D-8, and retired members by type and benefit amount beginning on page D-12. These schedules may be considered useful in evaluating the condition of the Systems and understanding the information presented in the financial statements, note disclosures and required supplementary information.

The Schedule of Changes in Plan Net Position, including deductions from net position for benefits and refunds, is derived from the Comprehensive Annual Financial Reports for the relevant fiscal year. All other information is derived from internal sources of the Systems, except for information that is derived from the actuarial valuations of the plans.

WICHITA RETIREMENT SYSTEMS

CHANGES IN FIDUCIARY NET POSITION WICHITA EMPLOYEES' RETIREMENT SYSTEM

For years ended December 31, 2007 through December 31, 2016
(accrual basis of accounting)

| | Fiscal Year | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| | 2016 | 2015 | 2014 | 2013 |
| ADDITIONS | | | | |
| Employer contributions | \$ 8,946,064 | \$ 9,031,463 | \$ 8,464,927 | \$ 7,990,502 |
| Employee contributions | 3,642,007 | 3,574,026 | 2,435,831 | 2,304,481 |
| Net income (loss) from investing activities | 35,956,780 | 13,380 | 27,894,626 | 92,166,874 |
| Reclassifications due to participant conversion | - | - | 2,942,734 | 2,465,600 |
| Total additions | <u>48,544,851</u> | <u>12,618,869</u> | <u>41,738,118</u> | <u>104,927,457</u> |
| DEDUCTIONS | | | | |
| Benefit payments | | | | |
| Service retirement | 32,442,114 | 31,786,968 | 30,632,053 | 29,346,178 |
| Survivor benefit | 3,394,194 | 3,121,649 | 2,956,020 | 2,762,399 |
| DROP lump sum payments | 2,122,297 | 885,185 | 2,798,396 | 2,650,766 |
| Qualified domestic relations order | 142,351 | 99,384 | 58,561 | 56,936 |
| Disability (service) | 53,905 | 53,201 | 59,753 | 57,193 |
| Disability (non-service) | 220,021 | 216,319 | 216,557 | 232,372 |
| Funeral benefits | 86,569 | 59,823 | 57,349 | 267,956 |
| Pension administration | 615,829 | 553,844 | 441,869 | 404,514 |
| Depreciation | - | 70,241 | 63,888 | 63,890 |
| Refunds | 683,332 | 866,874 | 400,433 | 570,712 |
| Reclassifications due to participant conversion | 244,793 | 465,171 | - | - |
| Total deductions | <u>40,005,405</u> | <u>38,178,659</u> | <u>37,684,879</u> | <u>36,412,916</u> |
| Net increase (decrease) in fiduciary net position | 8,539,446 | (25,559,790) | 4,053,239 | 68,514,541 |
| Net position - beginning, as previously reported | 541,247,503 | 552,232,824 | 548,179,585 | 479,665,044 |
| Prior period adjustment | - | 14,574,469 | - | - |
| Net position - beginning, restated | <u>541,247,503</u> | <u>566,807,293</u> | <u>548,179,585</u> | <u>479,665,044</u> |
| Net position - ending | <u>\$ 549,786,949</u> | <u>\$ 541,247,503</u> | <u>\$ 552,232,824</u> | <u>\$ 548,179,585</u> |

Note: In 2015, a prior period adjustment was made to report non-vested Plan 3 participants as part of the Wichita Employees' Retirement System. Prior to 2015, those members were reported with 3b members in the defined contribution plan. Reclassifications due to participant conversion represent members of Plan 3 who vest with seven years of service and move into either Plan 2 or Plan 3b.

Fiscal Year

| | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 |
|----|--------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| \$ | 6,471,423 | \$ 6,596,124 | \$ 4,529,765 | \$ 2,545,331 | \$ 2,450,162 | \$ 2,357,052 |
| | 2,343,641 | 2,537,440 | 2,664,619 | 2,639,080 | 2,621,076 | 2,543,563 |
| | 57,965,946 | 2,570,423 | 55,169,082 | 78,011,118 | (150,525,640) | 54,108,853 |
| | 2,025,607 | 2,680,431 | 1,276,393 | 1,664,681 | 2,019,289 | 2,102,726 |
| | <u>68,806,617</u> | <u>14,384,418</u> | <u>63,639,859</u> | <u>84,860,210</u> | <u>(143,435,113)</u> | <u>61,112,194</u> |
| | | | | | | |
| | 28,490,161 | 25,279,476 | 23,806,844 | 22,406,162 | 21,107,131 | 19,618,444 |
| | 2,658,630 | 2,591,380 | 2,478,774 | 2,449,423 | 2,369,917 | 2,174,019 |
| | 1,327,860 | 5,873,920 | 3,104,564 | 2,352,858 | 1,820,599 | 2,809,284 |
| | 53,820 | 56,285 | 74,004 | 81,064 | 63,516 | 60,617 |
| | 67,910 | 67,247 | 78,511 | 75,314 | 76,736 | 100,921 |
| | 243,470 | 247,876 | 254,152 | 262,579 | 286,251 | 218,443 |
| | 93,770 | 66,890 | 93,649 | 55,317 | 71,192 | 70,929 |
| | 396,167 | 444,630 | 429,764 | 444,112 | 438,411 | 384,528 |
| | 62,562 | 63,016 | 63,477 | 64,615 | 34,266 | - |
| | 341,634 | 449,266 | 191,171 | 247,890 | 313,595 | 232,417 |
| | - | - | - | - | - | - |
| | <u>33,735,984</u> | <u>35,139,986</u> | <u>30,574,910</u> | <u>28,439,334</u> | <u>26,581,614</u> | <u>25,669,602</u> |
| | | | | | | |
| | 35,070,633 | (20,755,568) | 33,064,949 | 56,420,876 | (170,016,727) | 35,442,592 |
| | | | | | | |
| | 444,594,411 | 465,349,979 | 432,285,030 | 375,864,154 | 545,880,881 | 510,438,289 |
| | - | - | - | - | - | - |
| | <u>444,594,411</u> | <u>465,349,979</u> | <u>432,285,030</u> | <u>375,864,154</u> | <u>545,880,881</u> | <u>510,438,289</u> |
| \$ | <u>479,665,044</u> | <u>\$ 444,594,411</u> | <u>\$ 465,349,979</u> | <u>\$ 432,285,030</u> | <u>\$ 375,864,154</u> | <u>\$ 545,880,881</u> |

WICHITA RETIREMENT SYSTEMS

CHANGES IN FIDUCIARY NET POSITION WICHITA EMPLOYEES' RETIREMENT SYSTEM PLAN 3b

For years ended December 31, 2007 through December 31, 2016
(accrual basis of accounting)

| | Fiscal Year | | | |
|---|---------------------|---------------------|----------------------|----------------------|
| | 2016 | 2015 | 2014 | 2013 |
| ADDITIONS | | | | |
| Employer contributions | \$ 203,532 | \$ 190,049 | \$ 1,147,770 | \$ 1,116,464 |
| Employee contributions | 203,509 | 190,049 | 1,147,770 | 1,116,240 |
| Net income (loss) from investing activities | 467,817 | (80,749) | 1,104,224 | 3,655,978 |
| Reclassifications due to participant conversion | 244,793 | 465,171 | - | - |
| Total additions | <u>1,119,651</u> | <u>764,520</u> | <u>3,399,764</u> | <u>5,888,682</u> |
| DEDUCTIONS | | | | |
| Pension administration | 7,366 | 5,056 | 64,686 | 73,351 |
| Depreciation | - | - | 54,768 | 54,763 |
| Refunds | 614,342 | 733,125 | 1,107,222 | 1,010,244 |
| Reclassifications due to participant conversion | - | - | 2,942,734 | 2,465,600 |
| Total deductions | <u>621,708</u> | <u>738,181</u> | <u>4,169,410</u> | <u>3,603,958</u> |
| Net increase (decrease) in fiduciary net position | 497,943 | 26,339 | (769,646) | 2,284,724 |
| Net position - beginning, as previously reported | 6,608,761 | 21,156,891 | 21,926,537 | 19,641,813 |
| Prior period adjustment | - | (14,574,469) | - | - |
| Net position - beginning, restated | <u>6,608,761</u> | <u>6,582,422</u> | <u>21,926,537</u> | <u>19,641,813</u> |
| Net position - ending | <u>\$ 7,106,704</u> | <u>\$ 6,608,761</u> | <u>\$ 21,156,891</u> | <u>\$ 21,926,537</u> |

Note: In 2015, a prior period adjustment was made to report non-vested Plan 3 participants as part of the Wichita Employees' Retirement System. Prior to 2015, those members were reported with 3b members in the defined contribution plan. Reclassifications due to participant conversion represent members of Plan 3 who vest with seven years of service and move into either Plan 2 or Plan 3b.

Fiscal Year

| | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 |
|----|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| \$ | 1,189,456 | \$ 1,244,150 | \$ 2,298,753 | \$ 1,478,256 | \$ 1,494,079 | \$ 1,428,686 |
| | 1,189,456 | 1,244,150 | 1,349,100 | 1,478,256 | 1,494,079 | 1,428,686 |
| | 2,315,117 | 170,531 | 2,124,997 | 2,608,965 | (4,387,641) | 1,542,383 |
| | - | - | - | - | - | - |
| | <u>4,694,029</u> | <u>2,658,831</u> | <u>5,772,850</u> | <u>5,565,477</u> | <u>(1,399,483)</u> | <u>4,399,755</u> |
| | 72,742 | 76,217 | 73,844 | 77,565 | 69,865 | 32,639 |
| | 53,625 | 54,017 | 54,408 | 55,384 | 29,371 | - |
| | 959,751 | 709,739 | 642,116 | 477,290 | 698,751 | 864,999 |
| | <u>2,025,607</u> | <u>2,680,431</u> | <u>1,276,393</u> | <u>1,664,681</u> | <u>2,019,289</u> | <u>2,102,726</u> |
| | <u>3,111,725</u> | <u>3,520,404</u> | <u>2,046,761</u> | <u>2,274,920</u> | <u>2,817,276</u> | <u>3,000,364</u> |
| | 1,582,304 | (861,573) | 3,726,089 | 3,290,557 | (4,216,759) | 1,399,391 |
| | 18,059,509 | 18,921,082 | 15,194,993 | 11,904,436 | 16,121,195 | 14,721,804 |
| | - | - | - | - | - | - |
| | <u>18,059,509</u> | <u>18,921,082</u> | <u>15,194,993</u> | <u>11,904,436</u> | <u>16,121,195</u> | <u>14,721,804</u> |
| \$ | <u><u>19,641,813</u></u> | <u><u>18,059,509</u></u> | <u><u>18,921,082</u></u> | <u><u>15,194,993</u></u> | <u><u>11,904,436</u></u> | <u><u>16,121,195</u></u> |

WICHITA RETIREMENT SYSTEMS

CHANGES IN FIDUCIARY NET POSITION POLICE AND FIRE RETIREMENT SYSTEM

For years ended December 31, 2007 through December 31, 2016
(accrual basis of accounting)

| | Fiscal Year | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| | 2016 | 2015 | 2014 | 2013 |
| ADDITIONS | | | | |
| Employer contributions | \$ 12,585,895 | \$ 13,964,379 | \$ 14,464,181 | \$ 14,889,714 |
| Employee contributions | 4,776,958 | 4,603,331 | 4,529,895 | 4,607,691 |
| Net income (loss) from investing activities | 39,901,640 | (163,702) | 30,596,067 | 99,494,232 |
| Total additions | <u>57,264,493</u> | <u>18,404,008</u> | <u>49,590,143</u> | <u>118,991,637</u> |
| DEDUCTIONS | | | | |
| Benefit payments | | | | |
| Service retirement | 26,169,001 | 24,767,622 | 22,854,129 | 21,081,456 |
| Survivor benefit | 3,275,582 | 3,216,979 | 3,147,177 | 2,963,019 |
| Backward DROP lump sum payments | 3,951,323 | 5,550,489 | 7,903,252 | 5,202,861 |
| Qualified domestic relations order | 221,720 | 200,947 | 159,200 | 130,426 |
| Disability (service) | 1,546,440 | 1,818,427 | 1,794,729 | 1,701,928 |
| Disability (non-service) | 71,496 | 70,479 | 70,558 | 68,445 |
| Funeral benefits | 20,974 | 17,697 | 28,688 | 9,871 |
| Pension administration | 548,171 | 483,193 | 478,320 | 402,003 |
| Depreciation | - | 37,825 | 63,887 | 401,901 |
| Refunds | 295,731 | 448,180 | 457,423 | 63,890 |
| Total deductions | <u>36,100,438</u> | <u>36,611,838</u> | <u>36,957,363</u> | <u>32,025,800</u> |
| Net increase (decrease) in fiduciary net position | 21,164,055 | (18,207,830) | 12,632,780 | 86,965,837 |
| Net position - beginning | 592,883,226 | 611,091,056 | 598,458,276 | 511,492,439 |
| Net position - ending | <u>\$ 614,047,281</u> | <u>\$ 592,883,226</u> | <u>\$ 611,091,056</u> | <u>\$ 598,458,276</u> |

Fiscal Year

| | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 |
|----|--------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| \$ | 14,113,014 | \$ 13,806,880 | \$ 13,119,984 | \$ 11,034,552 | \$ 10,549,401 | \$ 10,029,253 |
| | 4,543,523 | 4,403,425 | 4,467,983 | 4,443,524 | 4,277,247 | 4,056,022 |
| | 60,619,414 | 2,404,099 | 54,963,698 | 75,500,370 | (140,686,744) | 49,134,414 |
| | <u>79,275,951</u> | <u>20,614,404</u> | <u>72,551,665</u> | <u>90,978,446</u> | <u>(125,860,096)</u> | <u>63,219,689</u> |
| | 19,751,947 | 18,492,549 | 17,657,512 | 16,313,729 | 15,124,453 | 14,767,792 |
| | 2,798,141 | 2,704,987 | 2,569,695 | 2,367,563 | 2,293,653 | 2,175,191 |
| | 3,245,820 | 2,877,779 | 4,296,127 | 3,444,839 | 2,013,670 | 873,050 |
| | 116,670 | 117,737 | 115,432 | 93,762 | 80,179 | 72,056 |
| | 1,816,648 | 1,835,512 | 1,745,289 | 1,557,901 | 1,459,306 | 1,476,513 |
| | 67,428 | 66,411 | 65,394 | 64,377 | 63,359 | 62,342 |
| | 11,425 | 21,371 | 16,618 | 14,891 | 18,351 | 15,578 |
| | 396,424 | 445,898 | 421,251 | 438,348 | 418,165 | 366,637 |
| | 62,562 | 63,016 | 63,477 | 64,615 | 34,266 | - |
| | 357,192 | 636,120 | 492,380 | 295,424 | 493,516 | 254,190 |
| | <u>28,624,257</u> | <u>27,261,380</u> | <u>27,443,175</u> | <u>24,655,449</u> | <u>21,998,918</u> | <u>20,063,349</u> |
| | 50,651,694 | (6,646,976) | 45,108,490 | 66,322,997 | (147,859,014) | 43,156,340 |
| | 460,840,745 | 467,487,721 | 422,379,231 | 356,056,234 | 503,915,248 | 460,758,908 |
| \$ | <u>511,492,439</u> | <u>\$ 460,840,745</u> | <u>\$ 467,487,721</u> | <u>\$ 422,379,231</u> | <u>\$ 356,056,234</u> | <u>\$ 503,915,248</u> |

WICHITA RETIREMENT SYSTEMS

AVERAGE BENEFIT BY YEARS OF SERVICE *New Retirees by Calendar Year* **WICHITA EMPLOYEES' RETIREMENT SYSTEM**

For years ended December 31, 2007 through December 31, 2016

| | Fiscal Year | | | |
|--|-------------|-----------|-----------|-----------|
| | 2016 | 2015 | 2014 | 2013 |
| AVERAGE MONTHLY PENSION BENEFIT | | | | |
| 0 - 5 years of service | \$ - | \$ - | \$ - | \$ - |
| 5 - 10 years of service | 648 | 746 | 665 | 1,164 |
| 10 - 15 years of service | 1,159 | 1,095 | 950 | 1,278 |
| 15 - 20 years of service | 1,915 | 1,791 | 1,624 | 1,621 |
| 20 - 25 years of service | 2,249 | 1,861 | 1,957 | 1,992 |
| 25 - 30 years of service | 2,849 | 2,983 | 2,230 | 2,433 |
| More than 30 years of service | 3,456 | 4,003 | 3,217 | 3,891 |
| Average for all years of service | 2,167 | 2,174 | 1,921 | 1,760 |
| AVERAGE FINAL AVERAGE SALARY | | | | |
| 0 - 5 years of service | \$ - | \$ - | \$ - | \$ - |
| 5 - 10 years of service | 3,293 | 3,823 | 3,206 | 5,437 |
| 10 - 15 years of service | 4,226 | 3,617 | 3,353 | 4,091 |
| 15 - 20 years of service | 4,837 | 4,546 | 4,343 | 3,914 |
| 20 - 25 years of service | 4,442 | 3,727 | 4,027 | 4,288 |
| 25 - 30 years of service | 4,419 | 4,799 | 4,065 | 4,397 |
| More than 30 years of service | 4,322 | 5,197 | 4,495 | 5,388 |
| Average for all years of service | 4,289 | 4,367 | 4,026 | 4,409 |
| NUMBER OF RETIRED MEMBERS | | | | |
| 0 - 5 years of service | - | - | - | - |
| 5 - 10 years of service | 7 | 11 | 11 | 8 |
| 10 - 15 years of service | 15 | 7 | 10 | 17 |
| 15 - 20 years of service | 8 | 13 | 19 | 12 |
| 20 - 25 years of service | 13 | 9 | 14 | 6 |
| 25 - 30 years of service | 7 | 9 | 9 | 7 |
| More than 30 years of service | 17 | 13 | 20 | 4 |
| Total for all years of service | <u>67</u> | <u>62</u> | <u>83</u> | <u>54</u> |

Fiscal Year

| 2012 | 2011 | 2010 | 2009 | 2008 | 2007 |
|-----------|------------|-----------|-----------|-----------|-----------|
| \$ - | \$ - | \$ 290 | \$ - | \$ - | \$ - |
| 980 | 554 | - | 593 | 528 | 554 |
| 921 | 994 | 2,852 | 1,158 | 821 | 894 |
| 2,026 | 1,655 | - | 1,482 | 1,547 | 1,180 |
| 2,492 | 1,853 | 2,745 | 2,173 | 2,250 | 1,895 |
| 2,477 | 2,435 | 3,646 | 2,870 | 3,137 | 3,015 |
| 3,455 | 3,187 | 1,993 | 2,758 | 3,760 | 3,443 |
| 2,084 | 1,844 | 2,928 | 2,084 | 2,420 | 2,199 |
| \$ - | \$ - | \$ 2,956 | \$ - | \$ - | \$ - |
| 3,361 | 3,110 | - | 2,962 | 2,660 | 4,493 |
| 3,472 | 3,298 | 5,058 | 3,904 | 3,089 | 3,414 |
| 4,541 | 4,359 | - | 3,451 | 3,901 | 3,239 |
| 5,275 | 4,021 | 5,100 | 4,192 | 4,133 | 3,432 |
| 4,762 | 4,090 | 5,134 | 4,225 | 4,371 | 4,215 |
| 5,125 | 4,703 | 4,269 | 4,008 | 5,005 | 4,591 |
| 4,460 | 3,995 | 4,839 | 3,929 | 4,094 | 3,861 |
| - | - | 1 | - | - | - |
| 2 | 11 | - | 6 | 4 | 2 |
| 6 | 21 | 2 | 10 | 16 | 9 |
| 5 | 23 | - | 5 | 9 | 7 |
| 4 | 31 | 2 | 5 | 6 | 9 |
| 6 | 18 | 7 | 23 | 25 | 29 |
| 4 | 19 | 2 | 4 | 18 | 1 |
| <u>27</u> | <u>123</u> | <u>14</u> | <u>53</u> | <u>78</u> | <u>57</u> |

WICHITA RETIREMENT SYSTEMS

AVERAGE BENEFIT BY YEARS OF SERVICE

New Retirees by Calendar Year

POLICE AND FIRE RETIREMENT SYSTEM

For years ended December 31, 2007 through December 31, 2016

| | Fiscal Year | | | |
|--|-------------|-----------|-----------|-----------|
| | 2016 | 2015 | 2014 | 2013 |
| AVERAGE MONTHLY PENSION BENEFIT | | | | |
| 0 - 5 years of service | \$ - | \$ - | \$ 3,710 | \$ - |
| 5 - 10 years of service | - | - | - | 3,371 |
| 10 - 15 years of service | 2,688 | - | 1,867 | 2,254 |
| 15 - 20 years of service | 1,895 | 4,203 | 1,993 | 3,930 |
| 20 - 25 years of service | 3,108 | 3,004 | 2,971 | 3,037 |
| 25 - 30 years of service | 4,509 | 4,074 | 4,212 | 4,138 |
| More than 30 years of service | 4,658 | 4,589 | 4,870 | 4,790 |
| Average for all years of service | 4,235 | 3,979 | 3,984 | 3,697 |
| AVERAGE FINAL AVERAGE SALARY | | | | |
| 0 - 5 years of service | \$ - | \$ - | \$ 4,890 | \$ - |
| 5 - 10 years of service | - | - | - | 4,262 |
| 10 - 15 years of service | 5,014 | - | 5,150 | 4,065 |
| 15 - 20 years of service | 3,590 | 5,280 | 4,842 | 4,961 |
| 20 - 25 years of service | 5,586 | 5,490 | 5,132 | 4,936 |
| 25 - 30 years of service | 6,887 | 5,963 | 5,698 | 5,696 |
| More than 30 years of service | 5,917 | 5,824 | 6,192 | 6,387 |
| Average for all years of service | 6,055 | 5,756 | 5,671 | 5,337 |
| NUMBER OF RETIRED MEMBERS | | | | |
| 0 - 5 years of service | - | - | 1 | - |
| 5 - 10 years of service | - | - | - | 1 |
| 10 - 15 years of service | 1 | - | 1 | 3 |
| 15 - 20 years of service | 1 | 1 | 1 | 1 |
| 20 - 25 years of service | 2 | 8 | 13 | 10 |
| 25 - 30 years of service | 7 | 9 | 11 | 20 |
| More than 30 years of service | 10 | 11 | 17 | 2 |
| Total for all years of service | <u>21</u> | <u>29</u> | <u>44</u> | <u>37</u> |

Fiscal Year

| 2012 | 2011 | 2010 | 2009 | 2008 | 2007 |
|----------|-----------|-----------|-----------|-----------|-----------|
| \$ - | \$ - | \$ 290 | \$ - | \$ - | \$ - |
| - | - | - | 3,016 | - | - |
| 2,344 | 2,381 | 2,852 | 2,237 | 2,539 | - |
| 3,929 | 3,784 | - | 3,834 | - | - |
| 3,691 | 2,983 | 2,745 | 2,808 | 2,489 | 2,436 |
| - | 4,064 | 3,646 | 3,964 | 3,989 | 3,635 |
| - | 4,847 | 1,993 | 4,034 | 4,308 | 3,400 |
| 3,281 | 3,349 | 2,928 | 3,180 | 3,351 | 3,132 |
| \$ - | \$ - | \$ 2,956 | \$ - | \$ - | \$ - |
| - | - | - | 3,341 | - | - |
| 3,838 | 3,980 | 5,058 | 5,074 | 4,536 | - |
| 5,120 | 4,970 | - | 4,893 | - | - |
| 5,652 | 4,704 | 5,100 | 4,771 | 4,615 | 3,992 |
| - | 5,810 | 5,134 | 5,426 | 5,488 | 5,030 |
| - | 6,463 | 4,269 | 5,378 | 5,744 | 4,534 |
| 4,959 | 4,997 | 4,839 | 4,943 | 5,113 | 4,565 |
| - | - | 1 | - | - | - |
| - | - | - | 2 | - | - |
| 2 | 2 | 2 | 4 | 2 | - |
| 1 | 2 | - | 1 | - | - |
| 3 | 9 | 2 | 12 | 7 | 8 |
| - | 4 | 7 | 9 | 9 | 10 |
| - | 1 | 2 | 1 | 2 | 2 |
| <u>6</u> | <u>18</u> | <u>14</u> | <u>29</u> | <u>20</u> | <u>20</u> |

WICHITA RETIREMENT SYSTEMS

RETIRED MEMBERS BY TYPE AND BENEFIT AMOUNT WICHITA EMPLOYEES' RETIREMENT SYSTEM

As of December 31, 2016

| Monthly Benefit | Active in DROP | Non-Service Disability | QDRO ¹ | Service | Service Disability | Survivor | Total |
|-------------------|----------------|---------------------------|-------------------|--------------|-----------------------|------------|--------------|
| Less than \$500 | - | 2 | 2 | 56 | - | 73 | 133 |
| 500 - 1,000 | 2 | 9 | 5 | 149 | 1 | 66 | 232 |
| 1,000 - 1,500 | 10 | 3 | 3 | 135 | - | 68 | 219 |
| 1,500 - 2,000 | 7 | 2 | - | 155 | 3 | 39 | 206 |
| 2,000 - 2,500 | 12 | 2 | 1 | 104 | - | 18 | 137 |
| 2,500 - 3,000 | 12 | - | 1 | 103 | - | 4 | 120 |
| 3,000 - 3,500 | 11 | - | - | 110 | - | 4 | 125 |
| 3,500 - 4,000 | 5 | - | - | 86 | - | - | 91 |
| 4,000 - 4,500 | 4 | - | - | 65 | - | - | 69 |
| 4,500 - 5,000 | 4 | - | - | 52 | - | - | 56 |
| More than \$5,000 | 3 | - | - | 71 | - | 1 | 75 |
| | <u>70</u> | <u>18</u> | <u>12</u> | <u>1,086</u> | <u>4</u> | <u>273</u> | <u>1,463</u> |

POLICE AND FIRE RETIREMENT SYSTEM

As of December 31, 2016

| Monthly Benefit | Non-Service Disability | QDRO ¹ | Service | Recalc. Service Disability | Service Disability | Survivor | Total |
|-------------------|---------------------------|-------------------|------------|----------------------------------|-----------------------|------------|------------|
| Less than \$500 | - | 3 | 5 | - | - | 4 | 12 |
| 500 - 1,000 | 2 | 9 | 13 | - | 4 | 27 | 55 |
| 1,000 - 1,500 | 4 | 8 | 51 | 1 | - | 40 | 104 |
| 1,500 - 2,000 | - | 1 | 110 | 2 | - | 44 | 157 |
| 2,000 - 2,500 | - | - | 126 | 1 | - | 38 | 165 |
| 2,500 - 3,000 | - | 1 | 101 | 6 | 5 | 10 | 123 |
| 3,000 - 3,500 | - | - | 84 | 6 | 12 | 2 | 104 |
| 3,500 - 4,000 | - | - | 72 | 18 | 11 | 1 | 102 |
| 4,000 - 4,500 | - | - | 59 | 14 | 8 | 1 | 82 |
| 4,500 - 5,000 | - | - | 33 | 3 | - | 1 | 37 |
| More than \$5,000 | - | - | 41 | 5 | - | - | 46 |
| | <u>6</u> | <u>22</u> | <u>695</u> | <u>56</u> | <u>40</u> | <u>168</u> | <u>987</u> |

¹ Qualified Domestic Relations Order