



71ST  
ANNUAL  
REPORT

# Police Retirement System of Kansas City, Missouri

A Component Unit of the City of Kansas City, Missouri



Comprehensive  
Annual  
Financial  
Report

**KCPERS**  
Kansas City Police Employees' Retirement Systems

May 1, 2016 to  
April 30, 2017



# Police Retirement System of Kansas City, Missouri

A Component Unit of the City of Kansas City, Missouri

Comprehensive Annual Financial Report  
May 1, 2016 to April 30, 2017

71st Annual Report

Prepared by:  
Kansas City Police Employees'  
Retirement Systems  
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# Introductory Section

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# Retirement Board

Police Retirement System of Kansas City, Missouri



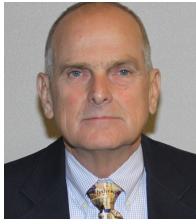
**Richard C. Smith, Chairman**  
Chief of Police  
Kansas City, Missouri  
Police Department



**Bailus M. Tate,**  
**Vice-Chair & Treasurer**  
Appointed Member



**Walter (Web) Bixby III**  
Appointed Member



**Gary Jenkins**  
(Ret.) Sergeant  
Kansas City, Missouri  
Police Department



**Robert W. Jones**  
(Ret.) Sergeant  
Kansas City, Missouri  
Police Department



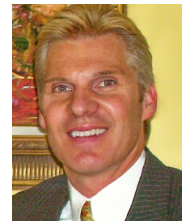
**Leslie Lewis**  
Appointed Member



**Donna L. Jasper**  
Civilian Administrator  
Kansas City, Missouri  
Police Department



**Matt Tomasic**  
(Ret.) Police Officer  
Kansas City, Missouri  
Police Department



**Patrick J. Trysla**  
Appointed Member

## KCPERS Staff



**Sharon Blancett**  
Assistant Pension  
Systems Manager



**Lori Freeze**  
Administrative  
Assistant



**Jason Hoy**  
Accountant



**James Pyle**  
Pension Systems Manager  
& Board Secretary

# KCPERS

Kansas City Police Employees' Retirement Systems

9701 Marion Park Drive, B • Kansas City, MO 64137  
(816) 482-8138 • Toll Free (888) 813-8138 • Fax (816) 763-1190

RETIREMENT BOARD MEMBERS  
CHIEF OF POLICE RICHARD SMITH • CHAIR  
BAILUS TATE • TREASURER  
WALTER BIXBY III  
(RET.) SERGEANT GARY JENKINS  
(RET.) SERGEANT ROBERT JONES  
LESLIE LEWIS  
DONNA L. JASPER  
(RET.) POLICE OFFICER MATT TOMASIC  
PATRICK TRYSLA

October 12, 2017

Retirement Systems Board  
Police Retirement System of Kansas City, Missouri  
9701 Marion Park Dr, B  
Kansas City, Missouri 64137

Dear Board Members:

It is my pleasure to submit the fiscal year 2017 Comprehensive Annual Financial Report (CAFR) of the Police Retirement System of Kansas City, Missouri. This report is intended to provide our members and other stakeholders with detailed information about the financial, actuarial, and investment operations of the Police Retirement System.

The Police Retirement System was created in 1946 by the Missouri General Assembly to provide retirement and disability benefits for law enforcement members of the Kansas City, Missouri Police Department and survivor benefits for their spouses and children. A nine member Board of Trustees, made up of elected and appointed members, governs the Retirement System.

## **Contents of the Annual Report and Structure**

This CAFR is designed to comply with the reporting requirements of sections 86.960 and 105.661 of the Revised Statutes of Missouri (RSMo), as amended. The ultimate responsibility for the CAFR and financial statements rests with the Board of Trustees. Retirement Systems staff provide support to the board members in completing their fiduciary responsibilities. Staff has prepared the basic financial statements of the Retirement System and, to the best of our knowledge, presented information that is accurate in all material respects and is reported in a manner designed to fairly represent the financial position of the fund. The accounting policies followed in preparing the basic financial statements comply with U.S. generally accepted accounting principles. Financial information presented throughout the CAFR is consistent with information displayed in the basic financial statements

The Retirement Systems' new external auditor, Allen, Gibbs & Houlik, L.C. (AGH) conducted an independent audit of the basic financial statements in accordance with U.S. generally accepted auditing standards. This audit is described in the Independent Auditors' Report on pages 18 and 19 of the Financial Section. Management has provided the external auditors with full and unrestricted access to staff to discuss their audit and related findings, to assure independent validation of the integrity of the Retirement Systems' financial reporting and the adequacy of internal controls.

AGH identified significant deficiencies in internal controls that are not considered a material weakness. There are significant deficiencies related to the Contributions and Cash Receipts Cycle and Purchasing and Cash Disbursements Cycle due to a lack of segregation of duties that are the result of the small number of staff. AGH noted that compensating controls are in place to provide reasonable assurance that financial statements are free of any material misstatements. In response to the audit and as part of the Retirement System's effort to enhance overall operation, the Board has decided to add a staff member in late 2017. A new Benefits Specialist will assist with the increased workload at the Retirement Systems, allow for more appropriate segregation of duties, and allow for cross training of job functions.

The Financial Section also contains Management's Discussion and Analysis that serves as an introduction to and overview of the financial statements. The Police Retirement System is a component unit of the City of Kansas City, Missouri for financial reporting purposes and, as such, the financial statements in this report are also included in the City of Kansas City, Missouri's Comprehensive Annual Financial Reports.

### **Actuarial and Investment Information**

Cavanaugh Macdonald, our consulting actuary, completed the actuarial valuation dated April 30, 2017. The funded ratio of the valuation assets to liabilities did not change from the prior year and remained at 76%. More information on the actuarial valuation is available in the Actuarial Section of this report.

The investment portfolio produced a total return of 9.55% (net of fees) against the policy benchmark return of 7.98%, which means our investment managers and asset allocation had a 1.57% gain versus the market indexes. The investment performance was greater than our assumed rate of return, for actuarial purposes, of 7.5%.

More information regarding the investment performance and the professionals who provide services to the Police Retirement System can be found on page 56 of the Investment Section, in the Schedule of Investment Results, which shows the historical investment performance of each outside investment manager.

### **Fiscal Year 2017 Projects**

The Retirement Board's Investment Committee continued to meet regularly with investment consultants from RVK, Inc. and Mariner Institutional Consulting to review portfolio performance, discuss possible changes to the target asset allocation, and complete structure study reviews of the fixed income portfolio and equity portfolio. During the year, the Committee met with staff from LSV Asset Management to review equity investments in global value, emerging markets, and small cap emerging markets; Grosvenor Capital Management to review hedge fund investments; and GMO to review tactical asset allocation investments. Committee members and staff also visited the offices of GMO to discuss staff and investment process changes and Wellington to review US and International small cap equity investments. The Committee and Board adopted a Funding Policy which provides direction regarding the Board's overall funding goals, the benchmarks to be used to measure progress towards those goals, and the methods and assumptions that will be employed to develop the benchmarks.

The Retirement Board also reviewed bid proposals for audit, legal counsel, and election services during the year. AGH was hired to complete the annual audit of our financial statements. Slagle, Bernard & Gorman, P.C. was retained as legal counsel. Intelliscan, Inc. was hired to complete the annual Board election process.

Retirement System staff continued working on the documentation and implementation of the business continuity plan. Staff also worked with AGH during the audit to complete a cybersecurity study of the Retirement Systems' information technology and data systems.

### **Legislative Changes**

There were no legislative changes to the Revised Statutes of Missouri that govern the Police Retirement System during the year.

### **Certificate of Achievement for Excellence in Financial Reporting**

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Police Retirement System of Kansas City, Missouri for its comprehensive annual financial report for the fiscal year ended April 30, 2016. This was the fifteenth consecutive year that the Retirement System has achieved this prestigious award. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

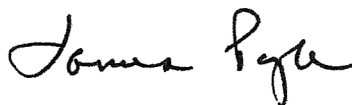
A Certificate of Achievement is valid for a period of one year only. We believe that our current comprehensive annual financial report continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

### **Acknowledgements**

The fiscal year 2017 annual report is the result of work by both Retirement Systems staff and outside advisors and the leadership provided to us by the Retirement Systems Board. It is intended to provide complete and reliable information, comply with the legislative and industry reporting requirements, and most importantly help our members learn more about the financial status of their retirement system.

The KCPERS staff wants to thank each of our board members, our retirement system members, our outside advisors and the Kansas City Police Department for all your contributions towards the successful operation of the Police Retirement System.

Respectfully submitted,



James J. Pyle  
Pension Systems Manager



Government Finance Officers Association

**Certificate of  
Achievement  
for Excellence  
in Financial  
Reporting**

Presented to

**Police Retirement System  
of Kansas City, Missouri**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**April 30, 2016**

Executive Director/CEO



# KCPERS

Kansas City Police Employees' Retirement Systems

9701 Marion Park Drive, B • Kansas City, MO 64137  
(816) 482-8138 • Toll Free (888) 813-8138 • Fax (816) 763-1190

RETIREMENT BOARD MEMBERS  
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BAILUS TATE • TREASURER  
WALTER BIXBY III  
(RET.) SERGEANT GARY JENKINS  
(RET.) SERGEANT ROBERT JONES  
LESLIE LEWIS  
DONNA L. JASPER  
(RET.) POLICE OFFICER MATT TOMASIC  
PATRICK TRYSLA

October 9, 2017

Dear Members,

On behalf of the Retirement Systems Board I am pleased to provide you with the Police Retirement System of Kansas City, Missouri Comprehensive Annual Financial Report for the fiscal year ending April 30, 2017. This annual report to our members provides financial information about your retirement system and an update on changes that occurred during the past year.

The pace of work at the Retirement Systems has not slowed down. This year we processed 44 new service retirements and 14 disability retirements bringing the total number of retirees and surviving spouses receiving benefits to 1,308. The number of active members in the plan declined to 1,286. The Police Department is actively recruiting Police Officer candidates and lateral transfers to fill vacancies and add contributing members to the Police plan.

The Retirement Board continued to work with our investment consultants to monitor the performance and investment processes of our 14 investment managers. Investment returns for the fiscal year were 9.4% net of fees, a full 2% over our target allocation benchmark of 7.5%. All of our managers had positive returns for the year and all but two managers outperformed their designated benchmark. The Investment Committee completed structure studies of our fixed income and equity portfolios. The fixed income study resulted in a recommendation to the Retirement Board to eliminate direct investments in global bonds and high yield bonds and instead add a bond manager who has the flexibility to move between core, global, and high yield bonds. That recommendation was implemented earlier this summer.

The Retirement Systems staff worked during the year to document processes and create a Business Continuity Plan (BCP). In the event of an emergency or natural disaster, the staff and board have a playbook to follow to continue our work, maintain records on our active employees, and pay benefits to our retired members. One of the items in the BCP was to have an outside expert test our computer systems and complete our first cybersecurity study. The Retirement Board hired a new audit firm with the ability to complete the cybersecurity study. The result of the study was shared with the Police Department's Information Technology staff. The study indicated that information stored on Retirement System computers was secure and monitored appropriately.

In an effort to enhance the overall operations of the Retirement Systems and to appropriately staff a retirement system of our size, we will be hiring a new Benefits Specialist this fall. An additional staff person will allow for more appropriate distribution of the work and segregation of duties within the office. Our auditors identified the need for better segregation duties in their annual review. An

additional staff person will also allow us to work on cross training of job functions, provide better service for members during peak times of the year, and address other work processes identified in the BCP.

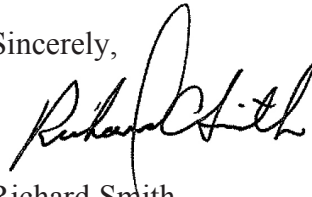
With the implementation of the Tier II benefit structure in 2013, the City began to contribute the full amount of the actuarially required contributions. This year the City continued to make the full required contributions.

This year we said goodbye to Barbara Stuart as the elected Civilian Employees' plan representative on the Retirement Board. Barb was first elected to the board in 2012 and was an original member and Chair of the Investment Committee. We wish Barb the best and thank her for helping to make significant changes to the decision making, due diligence, and monitoring processes related to our investments. This year we welcomed Donna Jasper to the Retirement Board. Donna was elected to fill the unexpired term for a member of the Civilian Employees' plan. Many of you know Donna as a long time employee in Accounting where she is responsible for the IT systems.

We also completed a thorough search for new legal counsel. After interviewing staff from several well-known Kansas City law firms, the Retirement Board retained Jonathan Dilly at Slagle, Bernard & Gorman. Jon had worked for several years with Gerald Gorman and was very familiar with both of our plans and the legal issues faced by the Retirement Systems.

In closing, I want to thank our members for your support as we work to ensure we have an affordable and sustainable retirement benefit. I also want to thank our Retirement Systems staff for their hard work in taking care of our members and implementing the plans and policies of the Retirement Board.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard Smith". The signature is fluid and cursive, with a large initial "R" and "S".

Richard Smith  
Retirement Board Chairman

## Outside Professional Services

### ACTUARY

**Cavanaugh Macdonald Consulting, LLC**  
Patrice Beckham, Byran Hoge  
Bellevue, Nebraska

### AUDITORS

**Allen, Gibbs & Houlik, L.C.**  
Andi Willems  
Wichita, Kansas

### INVESTMENT MANAGEMENT CONSULTANTS

**RVK, Inc.**  
Ryan Sullivan, Marcia Beard  
Portland, Oregon

**Mariner Institutional Consulting**  
Robert Woodard  
Lawrence, Kansas

### LEGAL COUNSEL

**Slagle, Bernard & Gorman**  
Jonathan N. Dilly  
Kansas City, Missouri

### MASTER TRUSTEE/CUSTODIAN

**The Northern Trust Company**  
Claudiu Besoaga  
Chicago, Illinois

### INVESTMENT ADVISORS

**FCI Advisors**  
Peter Greig, Gary Cloud  
Kansas City, Missouri

**LSV Asset Management**  
Keith Bruch  
Chicago, Illinois

**PGIM**  
Darin Bright, Kevin Smith  
Madison, New Jersey

**Abbott Capital Management, LLC**  
Charles van Horne  
New York, New York

**JPMorgan Investment Management, Inc.**  
Lawrence Unrein, Katherine Rosa  
New York, New York

**Northern Trust Global Investments**  
William Nickey  
Chicago, Illinois

**Shenkman Capital Management, Inc.**  
Mark Flanagan, Nicole Lupo  
New York, New York

**Artisan Partners**  
Steven Butler  
Milwaukee, Wisconsin

**Wellington Management Company**  
Julie Rancourt  
Boston, Massachusetts

**Grosvenor Capital Management**  
Mark Roman  
Chicago, Illinois

**GMO – GTAA**  
Brian Huggon  
Boston, Massachusetts

**Brandywine Global Opportunistic Fund**  
Jon Cordo  
Philadelphia, Pennsylvania

**Morgan Stanley Prime Property Fund**  
Scott Brown  
New York, New York

**Fidelity Investments**  
Ed Schollmeyer  
Smithfield, Rhode Island



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## Independent Auditor's Report

Retirement Systems Board  
Police Retirement System of Kansas City, Missouri  
Kansas City, Missouri

### ***Report on the Financial Statements***

We have audited the accompanying basic financial statements of the Police Retirement System of Kansas City, Missouri (Plan), a component unit of the City of Kansas City, Missouri (City) which are comprised of the statement of fiduciary net position as of April 30, 2017, and the statement of changes in fiduciary net position for the year then ended, and the related notes to the basic financial statements, which collectively comprise the 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. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

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

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

### **Opinion**

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

### **Other Matters**

#### *Prior Years Comparative Information*

The financial statement as of and for the year ended 2016 and prior were audited by other auditors whose previous reports expressed an unmodified opinion on those statements.

#### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and pension 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 Information*

Our audit was conducted for the purpose of forming an opinion on the 2017 basic financial statements that collectively comprise the Plan's financial statements. The supplementary information listed in the table of contents are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The 2017 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.

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

September 22, 2017  
Wichita, Kansas

# POLICE RETIREMENT SYSTEM OF KANSAS CITY, MISSOURI

## MANAGEMENT'S DISCUSSION AND ANALYSIS

---

This discussion and analysis of the Police Retirement System of Kansas City, Missouri (Police Retirement System or the Plan) financial statements provides an overview of its financial activities during the year ended April 30, 2017. Please read it in conjunction with the more detailed financial statements, notes and required supplementary information which follow this section.

The Police Retirement System is the defined benefit retirement plan for law enforcement members of the Kansas City, Missouri Police Department. The Plan was established by the Missouri General Assembly in 1946 and is administered by the Retirement Board to provide retirement, disability and survivor benefits to its members.

### ***Overview of Financial Statements and Accompanying Information***

- The financial statements presented in this report are the Statement of Fiduciary Net Position as of April 30, 2017, and the Statement of Changes in Fiduciary Net Position for the year ended April 30, 2017. These statements reflect resources available for the payment of benefits as of the year-end, and the sources and use of those funds during the year.
- The notes to the financial statements are an integral part of the financial statements and provide facts and detailed information to assist the reader in understanding the statements. Information in the notes are intended to provide financial statement users with a description of the Plan, a summary of significant accounting policies, the method used to value investments and a summary of Plan investments, and the methods and assumptions used to develop the actuarial valuation.
- Required Supplementary Information consists of schedules and related notes concerning significant actuarial information and assumptions. Beginning on page 44, these schedules and notes emphasize the long-term nature of pension plans and show the progress of the Plan in accumulating sufficient assets to pay future benefits.
- The Schedule of Changes in Net Pension Liability and Related Ratios presents detailed information about the pension liabilities for which the Plans' assets are held and managed. The schedule is 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 the Plan.
- The Schedule of City Contributions shows the amount of actuarially determined required contributions relative to the actual contributions made during the year. This schedule also presents covered payroll and contributions as a percentage of covered payroll to provide an economic context for the amount of contributions reported for the 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 Plan investments that adjusts for the changing amounts actually invested.



**POLICE RETIREMENT SYSTEM OF KANSAS CITY, MISSOURI**  
**MANAGEMENT’S DISCUSSION AND ANALYSIS**

- The Supplementary Information includes the Schedule of Expenses and the Schedule of Additions by Source and Deductions by Type. The Schedule of Expenses includes the detail of the administrative and investment costs to operate the Plan. The Schedule of Additions by Source and Deductions by Type is a historical summary which shows how contributions and investments impact the additions to the Plan and how benefit payments and administrative expenses impact the deductions from the Plan.

**Fiduciary Net Position**

The following is a summary comparative statement of Fiduciary Net Position:

	April 30, 2017	April 30, 2016	Amount Change
Cash	\$32,585	\$20,727	\$11,858
Receivables	3,653,121	6,968,634	(3,315,513)
Investments	826,033,290	770,246,435	55,786,855
Securities lending collateral	41,396,928	53,048,306	(11,651,378)
Other assets	1,176	2,342	(1,166)
<b>Total Assets</b>	<b>871,117,100</b>	<b>830,286,444</b>	<b>40,830,656</b>
Accounts and refunds payable	691,389	364,969	326,420
Due to broker for purchases of investments	413,881	2,069,778	(1,655,897)
Pending foreign exchange sales	1,267,861	2,012,355	(744,494)
Securities lending collateral	41,396,928	53,048,306	(11,651,378)
<b>Total Liabilities</b>	<b>43,770,059</b>	<b>57,495,408</b>	<b>(13,725,349)</b>
<b>Net Position Restricted for Pensions</b>	<b>\$827,347,041</b>	<b>\$772,791,036</b>	<b>\$54,556,005</b>

**Financial Analysis of Fiduciary Net Position**

The Statement of Fiduciary Net Position presents information on the Plan’s assets and liabilities with the difference between the two reported as Net Position Restricted for Pensions. This statement reflects, at fair value, the contributions and investments which are available to pay benefits.

The Police Retirement System’s benefits are funded through member and City of Kansas City, Missouri contributions, and investment income. Net position of the Plan increased to \$827,347,041 as of April 30, 2017 from \$772,791,036 as of April 30, 2016. Plan income is generated through the investment of contributions in stocks, bonds and alternative assets.

**Assets** – Total assets of the Police Retirement System were \$871.1 million as of April 30, 2017 and included cash, receivables, investments and securities lending collateral. Total assets increased by \$40.8 million or 4.9% from FY 2016. Investable assets increased during the year by \$55.8 million while securities lending collateral decreased by \$11.7 million. The increase in investable assets is due to positive investment performance in the stock, bond, and alternative assets portfolios. The Plan’s global stock portfolio returned 17.7% for the fiscal year and had the greatest impact on the increase in investable assets. The decline in securities lending collateral was due to the lack of volatility in the markets which decreased the demand for securities lending.

## POLICE RETIREMENT SYSTEM OF KANSAS CITY, MISSOURI

### MANAGEMENT'S DISCUSSION AND ANALYSIS

**Liabilities** – Total liabilities of the Police Retirement System were \$43.8 million as of April 30, 2017 and included payables for money manager fees and refunds, amounts due to brokers for purchases of investments, and securities lending collateral. Total liabilities decreased by \$13.7 million during the year mainly due to the \$11.7 million decrease in the offsetting liability for securities lending activity.

**Net Position** – Police Retirement System assets exceeded liabilities at April 30, 2017 by \$827.3 million. This increase of \$54.6 million or 7.0% from the prior year is due to the growth in total assets as a result of positive market performance, but also includes the reduction in total liabilities.

### Changes in Fiduciary Net Position

The following is a summary comparative statement of Changes in Fiduciary Net Position:

	April 30, 2017	April 30, 2016	Amount Change
Member Contributions	\$11,751,066	\$10,748,236	\$1,002,830
City Contributions	30,979,978	30,272,063	707,915
Total Net Investment Income (Loss)	72,631,413	(2,959,229)	75,590,642
<b>Total Additions</b>	<b>115,362,457</b>	<b>38,061,070</b>	<b>77,301,387</b>
Benefits Paid to Members	59,554,625	57,970,768	1,583,857
Refunds of Contributions	609,139	617,993	(8,854)
Administrative Expenses	642,688	561,591	81,097
<b>Total Deductions</b>	<b>60,806,452</b>	<b>59,150,352</b>	<b>1,656,100</b>
<b>Net Increase/(Decrease) in net position</b>	<b>54,556,005</b>	<b>(21,089,282)</b>	<b>75,645,287</b>
<b>Net Position Restricted for Pensions, Beginning of Year</b>	<b>772,791,036</b>	<b>793,880,318</b>	<b>(21,089,282)</b>
<b>Net Position Restricted for Pensions, End of Year</b>	<b>\$827,347,041</b>	<b>\$772,791,036</b>	<b>\$54,556,005</b>

### Financial Analysis of Changes in Fiduciary Net Position

The Statement of Changes in Fiduciary Net Position presents information showing how the Plan's Net Position Restricted for Pensions changed during the year ended April 30, 2017. This statement reflects contributions made by members and the City of Kansas City. Investment activities during the fiscal year are also presented which include interest and dividends and the net appreciation or depreciation in fair value of the investments. Benefits paid to members, refunds of contributions and administrative expenses are also reported in the statement.

## POLICE RETIREMENT SYSTEM OF KANSAS CITY, MISSOURI

### MANAGEMENT'S DISCUSSION AND ANALYSIS

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**Revenues** – Additions to Fiduciary Net Position – Member contributions, City contributions and investment income are the sources of revenue for the Police Retirement System. Members contributed 11.55% of covered salary to the Plan while City contributions totaled \$30.9 million or 27.7% of projected covered salary. Member contributions increased during the year, even though total covered payroll decreased. Member contributions include \$1.3 million from members who elected to purchase creditable service in the Plan. City contributions increased to pay the required contributions as determined by the Plan's actuary. The City also paid \$200 per month for each member eligible to receive the supplemental benefit which totaled \$3.1 million. Total net investment income increased due to positive investment market performance. The portfolio's investment rate of return, net of investment expenses, was 9.62% with total net investment income of \$72.6 million.

Investment expenses, including custodial bank fees, manager fees, and investment consultation totaled \$4.7 million. Investments in global stocks, bonds, real estate, absolute return, real return, and private equity all posted gains for the year.

**Expenses** – Deductions from Fiduciary Net Position – Benefits paid to members, refunds of member contributions and administrative expenses are the sources of expenses for the Police Retirement System. Benefit payments and refunds represent 99% of the total deductions. Benefits paid to members increased over the prior year because of new retirements and a cost of living adjustment for retirees. The amount of refunds decreased slightly due to fewer members leaving the Police Department than in the prior year. Administrative expenses increased due to additional staff expenses, audit fees, and medical evaluations.

City contributions continued to equal the amount recommended by the Plan's actuary. For the year beginning May 1, 2017, City contributions are budgeted to total the actuarial required contribution amount of \$28.9 million. The contribution amount is calculated at 29.08% of projected covered salary.

The Retirement Board has approved an asset allocation which over time is expected to realize a long-term investment rate of return of 7.5%. The Retirement Board continues to review investment allocations on a monthly basis and to rebalance the portfolio, as needed, with guidance from an independent financial consulting firm.

#### ***Requests for Information***

This financial report is designed to provide members of the Police Retirement System, citizens, investors and creditors of the City of Kansas City, Missouri with a general overview of the Plan finances and to demonstrate its accountability for the money it receives. If you have questions about this report or need additional financial information, contact the Kansas City Police Employees' Retirement Systems, 9701 Marion Park Drive B, Kansas City, Missouri 64137.

There are no other currently known facts, conditions or decisions that are expected to have a significant effect on the financial position or results of operations of the Police Retirement System.

# POLICE RETIREMENT SYSTEM OF KANSAS CITY, MISSOURI

## STATEMENT OF FIDUCIARY NET POSITION

April 30, 2017

### Assets

<b>Investments</b>	
U.S. government securities	\$47,168,819
Corporate bonds and notes	85,392,334
Common and preferred stock	81,154,079
All country world index fund	121,182,383
Government mortgage-backed securities	7,585,965
Government agency fund	63,412,162
Partnerships - equity	18,401,287
Partnerships - fixed income	27,157,993
Real estate funds	110,924,864
Short-term investment funds	5,764,087
Hedge fund of funds	87,738,098
Equity funds	78,611,738
International small cap equity funds	11,700,542
Emerging market equity funds	25,086,567
Foreign equities	54,752,372
<b>Total investments</b>	<b>826,033,290</b>
<b>Securities Lending Collateral</b>	<b>41,396,928</b>
<b>Receivables</b>	
City contributions	258,400
Member contributions	399,608
Accrued interest and dividends	1,720,088
Due from broker for sales of investments	25,984
Pending foreign exchange purchases	1,249,041
<b>Total receivables</b>	<b>3,653,121</b>
<b>Other assets</b>	<b>1,176</b>
<b>Cash</b>	<b>32,585</b>
<b>Total assets</b>	<b>871,117,100</b>

### Liabilities

Accounts and refunds payable	691,389
Due to broker for purchases of investments	413,881
Pending foreign exchange sales	1,267,861
Securities lending collateral	41,396,928
<b>Total liabilities</b>	<b>43,770,059</b>
<b>Net Position Restricted for Pensions</b>	<b>\$827,347,041</b>

See Notes to the Financial Statements.

# POLICE RETIREMENT SYSTEM OF KANSAS CITY, MISSOURI

## STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

Year Ended April 30, 2017

### Additions

#### Investment Income

Net appreciation in fair value of investments	\$62,159,145
Interest and dividends	14,968,292
Investment expense	(4,678,822)
Net investment income	72,448,615

#### Securities Lending Income

Securities lending gross income	418,536
Securities lending expenses	
Borrower rebates	(157,446)
Management fees	(78,292)
Total securities lending expenses	(235,738)
Net securities lending income	182,798
Total net investment income	72,631,413

#### Contributions

City	30,979,978
Members	11,751,066
Total contributions	42,731,044
Total additions	115,362,457

### Deductions

#### Benefits Paid

Retired members	42,513,617
Spouses	7,395,320
Children	131,003
Disabled	8,242,415
Partial lump sum option	1,240,270
Death benefits	32,000
Total benefits paid	59,554,625

#### Other Deductions

Refunds of contributions	609,139
Administrative expenses	642,688
Total other deductions	1,251,827
Total deductions	60,806,452

**Net Increase in Net Position** **54,556,005**

**Net Position Restricted for Pensions, Beginning of Year** **772,791,036**

**Net Position Restricted for Pensions, End of Year** **\$827,347,041**

See Notes to Financial Statements.

**Note 1: Summary of Significant Accounting Policies**

**Reporting Entity**

The Police Retirement System of Kansas City, Missouri (the Plan) is considered a component unit of the City of Kansas City, Missouri financial reporting entity and included in the City's financial reports as a pension trust fund due to the nature of the Plan's reliance on funding from the City of Kansas City, Missouri. Accounting principles generally accepted in the United States of America require that the financial reporting entity include the primary government, organizations for which the primary government is financially accountable and other organizations for which the nature and significance of their relationship with the primary government are such that exclusion would cause the reporting entity's financial statements to be misleading or incomplete. Based on these criteria, there are no other organizations or agencies whose financial statements should be combined and presented with these basic financial statements.

**Measurement Focus and Basis of Accounting**

The Plan uses a fund to report on its financial position and the results of its operations. Fund accounting is designed to demonstrate legal compliance and to aid financial management by segregating transactions related to certain government functions or activities. The Plan's fund is classified as a pension trust fund of fiduciary fund type. Pension trust funds account for assets held by the Plan in a trustee capacity or as an agent on behalf of others and are accounted for on the flow of economic resources measurement focus and the accrual basis of accounting. Plan member contributions are recognized in the period in which the contributions are due. City contributions to the Plan are recognized when due and the City has made a formal commitment to provide the contributions. Interest and dividend income are recorded when earned. Expenses are recorded when the corresponding liabilities are incurred. Realized gains and losses on security transactions are based on the difference between sales proceeds and carrying value of the securities, and are recognized on the transaction date. Benefits and refunds are recognized when due and payable in accordance with the terms of the Plan.

**Valuation of Investments and Income Recognition**

Marketable securities, including mutual funds, are stated at fair value. Securities traded on a national securities exchange are valued at the last reported sales price on the last business day of the Plan year; investments traded in the over-the-counter market and listed securities for which no sale was reported on that date are valued at the average of the last reported bid and ask prices.

For certain investments consisting of corporate bonds and notes, U.S. Treasury obligations, U.S. agency obligations and government mortgage-backed securities that do not have an established fair value, the Plan has established a fair value based on yields currently available on comparable securities of issuers with similar credit ratings and quotations are obtained from brokerage firms or national pricing services.

**Note 1: Summary of Significant Accounting Policies (Continued)**

The private equity partnerships, equity funds, hedge fund of funds and real estate funds consist primarily of non-marketable investments in various venture capital, corporate finance funds and private partnerships (collectively referred to as “Portfolio Funds”). These funds are primarily invested in the technology, communications, energy, real estate markets, as well as U.S. fixed income instruments and alternative or non-traditional investments. A portion of these funds is also invested in foreign operations under certain partnership agreements. These investments are recorded at fair value based on financial data, which is generally at an amount equal to the net asset value per share on the Fund’s proportionate interest in the net position or net equity of the Portfolio Funds as determined by each Portfolio Fund’s general partner or investment manager.

The Plan is obligated to pay certain capital commitments to the partnerships. These outstanding commitments totaled \$1,915,387 at April 30, 2017.

Securities, which are not traded on a national security exchange, are valued by the respective investment manager or other third parties based on similar sales.

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date.

**Administrative Expenses**

Actuarial, investment management and bank trustee fees and expenses are included in the Plan’s expenses when incurred. These expenses are financed through investment income. The Kansas City, Missouri Police Department provides office space without any direct cost to the Plan. Some investment related expenses may be included in the net appreciation in fair value of investments.

**Use of Estimates**

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and changes therein and, disclosure of contingent assets and liabilities at the date of the financial statements. Actual results could differ from those estimates.

**Plan Tax Status**

The Plan obtained its most recent determination letter on December 17, 2014, in which the Internal Revenue Service stated that the Plan, as designed, was in compliance with the applicable requirements of the Internal Revenue Code and, therefore, not subject to tax.



# POLICE RETIREMENT SYSTEM OF KANSAS CITY, MISSOURI

## NOTES TO THE FINANCIAL STATEMENTS

### Note 2: Plan Description

The following summary description of the Police Retirement System of Kansas City, Missouri provides only general information. Participants should refer to the Plan Statutes (Sections 86.900 to 86.1280 RSMo) for a more complete description of the Plan's provisions.

The Plan is a single-employer, contributory, defined benefit plan established by the State of Missouri's General Assembly and administered by the Retirement Board of the Police Retirement System of Kansas City, Missouri (the "Board"). The Board is composed of nine members, two are appointed by the Board of Police Commissioners, two are appointed by the City Council and five are elected by the membership of the Retirement System. The elected members must include one member of the Civilian Employees' Retirement System, one member retired from active service in the Police Retirement System and one active member of the Police Retirement System who has not attained the rank of Sergeant or higher. Elections are held annually and Board members are elected to serve for three-year terms.

**Eligibility** – All police officers who serve as law enforcement officers for compensation become members as a condition of employment.

**Tier I member** – A person who became a member prior to August 28, 2013 and remained a member on August 28, 2013.

**Tier II member** – A person who became a member on or after August 28, 2013.

At April 30, 2017, the Plan's membership consisted of the following:

	Tier I Members	Tier II Members	Total
Retirees and beneficiaries currently receiving benefits	1,307	1	1,308
Terminated members entitled to but not yet receiving benefits	23	–	23
Active members			
Vested	629	–	629
Non-vested	533	132	665
<b>Total</b>	<b>2,492</b>	<b>133</b>	<b>2,625</b>

**Contributions** – State Statutes set out the funding requirements for the Plan which can only be amended by the Missouri General Assembly. The Retirement Board establishes a rate based on an actuarially determined rate recommended by an independent actuary. The actuarially determined rate is the estimated amount necessary to finance the costs of benefits earned by Plan members during the year, with an additional amount to finance any unfunded accrued liability. The City is required to contribute the employer actuarially determined contribution rate. For the year ended April 30, 2017, active members contributed at a rate of 11.55% of base pay, and the City contributed at a rate of 27.71% of annual projected payroll. In addition, the City was obligated to make contributions of \$200 per month of supplemental benefit for eligible members.



**Note 2: Plan Description (Continued)**

**Benefits Provided** – Benefit terms for the Plan are established in Missouri Revised Statutes 86.900 to 86.1280 and can only be amended by the Missouri General Assembly. The Plan provides retirement benefits, as well as pre-retirement death benefits, duty and non-duty related disability benefits and termination benefits to sworn law enforcement employees of the Kansas City, Missouri Police Department.

**Service Retirement**

**Eligibility** –

**Tier I member** – 25 years of service, without regard to age, or at age 60 with at least 10 years of service.

**Tier II member** – 27 years of service, without regard to age, or at age 60 with at least 15 years of service.

All members must retire at the completion of 35 years of service, or at age 65, whichever occurs first.

**Amount of Pension** – For a member retiring prior to August 28, 2000, benefit equal to 2% of Final Compensation multiplied by years of creditable service, subject to a maximum benefit of 60% of Final Compensation.

For a member retiring on or after August 28, 2000 and before August 28, 2013, benefit equal to 2.5% of Final Compensation multiplied by years of creditable service, subject to a maximum benefit of 75% of Final Compensation.

For a member retiring on or after August 28, 2013, benefit equal to 2.5% of Final Compensation multiplied by years of creditable service, subject to a maximum benefit of 80% of Final Compensation.

**Final Compensation** –

**Tier I member** – Average annual compensation during the two years of service with the highest salary, whether consecutive or otherwise, or during the entire period of service if less than two years.

**Tier II member** – Average annual compensation during the three years of service with the highest salary, whether consecutive or otherwise, or during the entire period of service if less than three years.

**Deferred Retirement (Vested Termination)**

**Eligibility** – 15 years of creditable service.

**Tier I member** – Benefit begins at age 55.

**Tier II member** – Benefit begins at age 60.

**Note 2: Plan Description (Continued)**

**Amount of Pension** – Computed as service retirement but based on service, Final Compensation and benefit formula in effect at termination of employment. Benefits are unreduced.

**Disability**

**Duty Disability Eligibility** – A member in active service who has become permanently unable to perform the full and unrestricted duties of a police officer, as determined by the Board of Police Commissioners, as the exclusive result of an accident or disease occurring in the line of duty.

**Amount of Pension** – For a member retiring on or after August 28, 2001 and before August 28, 2013, benefit equal to 75% of Final Compensation payable for life or as long as the permanent disability continues.

For a member retiring on or after August 28, 2013, benefit equal to 80% of Final Compensation payable for life or as long as the permanent disability continues.

**Non-Duty Disability Eligibility** – A member in active service, with a minimum of 10 years of service, who has become permanently unable to perform the full and unrestricted duties of a police officer as determined by the Board of Police Commissioners. Disability is not exclusively caused by the actual performance of official duties.

**Amount of Pension** – 2.5% of Final Compensation multiplied by years of creditable service payable for life or as long as the permanent disability continues.

Disability benefits may be subject to offset or reduction by amounts paid or payable under any Workers' Compensation law. A disability retiree who is not age 60 may be required by the Retirement Board to undergo continuing eligibility reviews once every three years which may include a medical re-examination.

**Death in Service – Duty or Non-Duty**

**Eligibility** – Benefit payable to a surviving spouse, if any, upon the death of an active member. Benefit payable for the life of the surviving spouse. If there is no surviving spouse, benefit payable to an eligible child or children in equal shares until age 18. No service requirement.

**Amount of Pension** – 40% of Final Compensation payable to surviving spouse for life.

**Child Benefit** – \$600 annually for each child under the age of 18, if any, until the child reaches age 18 or age 21, if a full time student. A child who is mentally or physically incapacitated from wage earning at the time of a member's death shall qualify, without regard to age, for life or so long as the incapacity existing at time of member's death continues.

**Funeral Benefit** – \$1,000 payable upon the death of an active member.

## Note 2: Plan Description (Continued)

### Line of Duty Death

**Eligibility** – Benefit payable to a surviving spouse. If no surviving spouse, benefit payable to children under age 21 or children over age 21 if mentally or physically incapacitated from wage earning, in equal shares. Death resulting from performance of official duties; no service requirement.

**Amount of Benefit** – In addition to benefits payable under Death in Service shown above, a lump sum of \$50,000.

### Death After Retirement

**Eligibility** – Benefit payable to an eligible surviving spouse, if any, upon the death of a retired member. Benefit payable for the life of the surviving spouse. If there is no surviving spouse, benefit payable to an eligible child or children in equal shares until age 18.

#### **Amount of Pension –**

**Tier I member** – Benefit equal to 80% of the straight life pension the deceased member was receiving at time of death.

**Tier II member** – Benefit equal to 50% of the straight life pension the deceased member was receiving at time of death. In lieu of the 50% surviving spouse benefit, a Tier II member may elect, at the time of retirement, a reduced actuarially equivalent annuity of either a 75% or 100% surviving spouse benefit.

**Funeral Benefit** – \$1,000 payable upon the death of a retired member.

### Non-Vested Termination

**Eligibility** – Termination of employment and no pension is or will become payable.

**Amount of Benefit** – Refund of member's contributions without interest.

### Minimum Pension Benefit

**Eligibility** – Any retired member who is entitled to a pension benefit and who either has at least 25 years of creditable service or is retired as a result of an injury or illness. A surviving spouse qualifies for the minimum monthly benefit if the member had at least 25 years of creditable service, died in service or was retired as a result of an injury or illness.

**Amount of Benefit** – Minimum monthly benefit of not less than \$600 in combined pension benefit and cost-of-living adjustments. The minimum monthly pension benefit is in addition to the Supplemental Retirement Benefit.

**Note 2: Plan Description (Continued)**

**Post-Retirement Benefit Increases**

**Eligibility –**

**Tier I members and surviving spouses –** Member’s pension must have commenced by December 31 of prior calendar year.

**Tier II members and surviving spouses –** Service retirements generally eligible in the year following the year in which member would have attained thirty-two years of service. Duty Disability retirements eligible in year following retirement. Non-duty Disability retirements eligible earlier of year following fifth year after retirement or year following the year in which they would have attained thirty-two years of service. Surviving spouses of retired members eligible at same time member would have been if living.

**Amount of Benefit –** May receive an annual cost-of-living adjustment (COLA) in an amount not to exceed 3% of their respective base pension. Base pension is the pension computed under the provisions of the law at the date of retirement, without regard to COLAs. The COLA is normally effective with the May 31st benefit payment.

Statutes require that the Retirement Board must act upon the advice of a qualified actuary when granting cost of living adjustments.

**Supplemental Retirement Benefit**

**Tier I member –** Current and future retired and disabled members and their surviving spouses are eligible to receive \$420 per month in addition to pension benefits.

**Tier II member –** Current and future retired and disabled members and their surviving spouses are eligible to receive \$200 per month in addition to pension benefits.

**Optional Form of Benefit Payment**

**Tier I member –** Member retiring with at least 26 or more years of service may elect to take a portion of their lifetime benefit as a lump-sum distribution (PLOP).

**Tier II member –** Member retiring with at least 28 or more years of service may elect to take a portion of their lifetime benefit as a lump-sum distribution (PLOP).

Members electing PLOP will receive an actuarially reduced monthly benefit for their lifetime.

**Social Security and Medicare**

**Tier I member –** Members do not participate in Social Security although members hired after 1986 do contribute to Medicare.

**Tier II member –** Members do not participate in Social Security but do contribute to Medicare.

**Note 3: Deposits, Investments and Investment Income**

**Deposits**

Custodial credit risk is the risk that, in the event of a bank failure, a government’s deposits may not be returned to it. The Plan’s deposit policy for custodial credit risk requires compliance with the provisions of state law.

State law requires collateralization of all deposits with federal depository insurance; bonds and other obligations of the U.S. Treasury, U.S. agencies or instrumentalities of the State of Missouri; bonds of any city, county, school district or special road district of the State of Missouri; bonds of any state; or a surety bond having an aggregate value at least equal to the amount of the deposits.

The Plan had no bank balances exposed to custodial credit risk at April 30, 2017.

**Investments**

For the year ended April 30, 2017, The Northern Trust Company (Northern Trust) was the master custodian for substantially all of the securities of the Plan. The investments held by the Plan are managed by 14 Board-appointed money managers. Each of the money managers has a different asset allocation based on Board-approved policy. The Plan may legally invest in direct obligations of and other obligations guaranteed as to principal by the U.S. Treasury and U.S. agencies and instrumentalities, real estate, partnerships, corporate bonds, commodities and equity securities.

The asset type and classes, target asset allocation and ranges to be used in the Plan are shown below. All percentages are based on fair values. The Board has authorized Plan staff, with guidance from the Investment Consultant, to rebalance the portfolio in accordance with the strategy guidelines below:

<b>Asset Type and Class</b>	<b>Range</b>	<b>Target</b>
<b>Equities</b>		
Global Equity	30% – 40%	35%
Private Equity	0% – 10%	5%
<b>Fixed Income</b>	<b>25% – 35%</b>	<b>30%</b>
<b>Alternatives</b>		
Real Return	0% - 10%	5%
Real Estate	5% – 15%	10%
Absolute Return	10% – 20%	15%
<b>Cash</b>	<b>0% – 5%</b>	<b>0%</b>

**Note 3: Deposits, Investments and Investment Income (Continued)****Securities Lending Transactions**

State statutes and the Plan's Board policies permit the Plan to use investments of the Plan to enter into securities lending transactions – loans of securities to broker-dealers and other entities for collateral with a simultaneous agreement to return the collateral for the same securities in the future.

The Plan has contracted with Northern Trust as its third-party lending agent to lend domestic equity and debt securities for cash collateral of not less than 102% of the fair value and international debt and equity securities of not less than 105% of the fair value. Contracts with the lending agent require it to indemnify the Plan if borrowers fail to return the securities, if the collateral is inadequate to replace the securities lent or if the borrowers fail to pay the Plan for income distributions by the securities' issuers while the securities are on loan; therefore, non-cash collateral is not recorded as an asset or liability on the financial statements.

Fair value of securities loaned	<u>\$40,319,559</u>
Fair value of cash collateral received from borrowers	\$41,396,928
Fair value of non-cash collateral received from borrowers	–
Total fair value of collateral	<u>\$41,396,928</u>

All securities lent can be terminated on demand by either the Plan or the borrower. The cash collateral received on each security loan was invested, in accordance with the Plan investment guidelines, in short-term funds. The maturities of the resulting investments generally match the maturities of the securities lending arrangements themselves. The Plan is not permitted to pledge or sell collateral received unless the borrower defaults.

**POLICE RETIREMENT SYSTEM OF KANSAS CITY, MISSOURI**  
**NOTES TO THE FINANCIAL STATEMENTS**

**Note 3: Deposits, Investments and Investment Income (Continued)**

At April 30, 2017, the Plan had the following investments and maturities:

Type	Fair Value	Maturities in Years				Loaned Under Securities Lending Agreements
		Less than 1	1 – 5	6 – 10	More than 10	
U.S. Treasury obligations	\$38,309,884	\$–	\$12,526,442	\$6,377,425	\$19,406,017	\$11,560,088
U.S. agencies obligations	8,858,935	–	3,938,310	4,920,625	–	–
Corporate bonds and notes	85,392,334	9,936,074	31,322,256	32,380,474	11,753,530	9,569,930
Government mortgage-backed securities	7,585,965	–	204,972	–	7,380,993	–
Government agency fund	63,412,162	–	63,412,162	–	–	–
Money market mutual funds	5,764,087	5,764,087	–	–	–	–
		<u>\$15,700,161</u>	<u>\$111,404,142</u>	<u>\$43,678,524</u>	<u>\$38,540,540</u>	
Common and preferred stock	81,154,079					18,844,759
All country world index fund	121,182,383					–
Real estate funds	110,924,864					–
Hedge fund of funds	87,738,098					–
Partnerships - equity	18,401,287					–
Partnerships - fixed income	27,157,993					–
Foreign equities	54,752,372					344,782
Equity funds	78,611,738					–
International small cap equity funds	11,700,542					–
Emerging market equity funds	25,086,567					–
	<u>\$826,033,290</u>					<u>\$40,319,559</u>

**Interest Rate Risk** – Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The money market mutual funds are presented as an investment with a maturity of less than one year because they are redeemable in full immediately. The debt securities are presented in their respective category based on final maturity date. The government agency fund is presented based on the weighted average maturity of the fund. The Plan’s investment policy does not specifically address exposure to fair value losses arising from rising interest rates.



# POLICE RETIREMENT SYSTEM OF KANSAS CITY, MISSOURI

## NOTES TO THE FINANCIAL STATEMENTS

### Note 3: Deposits, Investments and Investment Income (Continued)

**Credit Risk** – Credit risk is the risk that the issuer or other counterparty to an investment will not fulfill its obligations. It is the Plan’s policy to invest in corporate bonds that are rated BBB or better by credit rating agencies. Core fixed income managers may hold bonds with a rating equal to or above BB. At April 30, 2017, the Plan’s investments in corporate bonds were rated BBB or better by *Standard & Poor’s*. U.S. Treasury obligations were explicitly guaranteed by the U.S. Government. At the same date, the Plan’s investments in U.S. agencies obligations not directly guaranteed by the U.S. Government (including Federal National Mortgage Association, Federal Home Loan Banks and Federal Home Loan Mortgage Corporation) and in government mortgage-backed securities were rated AA+ or better by *Standard & Poor’s*. The Plan’s investments in money market mutual funds and government agency funds were not rated by *Standard & Poor’s*.

These bond rating requirements do not apply to the high yield portion of the fixed income portfolio. The following table summarizes the Plan’s fixed income portfolio exposure level and credit qualities at April 30, 2017:

Fixed Income Security Type	Fair Value April 30, 2017	S&P Weighted Average Credit Quality
U.S. agencies obligations	\$8,858,935	AA+
Corporate bonds and notes	85,392,334	A
Government mortgage-backed securities	7,585,965	AA+
Government agency fund	63,412,162	Not rated
Money market mutual funds	5,764,087	Not rated

**Custodial Credit Risk** – For an investment, custodial credit risk is the risk that, in the event of the failure of the counterparty, the Plan will not be able to recover the value of its investment or collateral securities that are in the possession of an outside party. Consistent with the Plan’s securities lending policy, \$40,319,559 was held by the counterparty that was acting as the Plan’s agent in securities lending transactions.

**Investment Concentrations** – The following presents investments that represent 5% or more of the Plan’s net position:

Investment	Fair Value
FCI Core Fixed Income	\$140,147,119
Northern Trust Collective All Country World Investable Market Index Fund – Non Lending	121,182,383
Grosvenor FOB Fund, L.P.	87,738,098
LSV Global Value	68,412,326
Artisan Global	67,494,125
Brandywine Global Opportunity Fixed Income	63,412,162
Prudential PRISA II	61,421,805
Morgan Stanley – Prime Property Fund, LLC	49,503,059



# POLICE RETIREMENT SYSTEM OF KANSAS CITY, MISSOURI

## NOTES TO THE FINANCIAL STATEMENTS

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### Note 3: Deposits, Investments and Investment Income (Continued)

**Foreign Currency Risk** – This risk relates to adverse effects on the fair value of an investment from changes in exchange rates. The Plan’s investment policy permits investments in international equities, American Depository Receipts (ADRs), warrants, rights, 144A securities, convertible bonds and U.S. registered securities whose principal markets are outside of the United States. All foreign equities and emerging market equities held are denominated in U.S. dollars.

#### Investment Income

Investment income (loss) for the year ended April 30, 2017, consisted of:

Interest and dividend income	\$14,968,292
Net appreciation in fair value of investments	62,159,145
	<u>77,127,437</u>
Less investment expense	4,678,822
	<u>\$72,448,615</u>

**Annual Money-Weighted Rate of Return** – For the year ended April 30, 2017, the annual money- weighted rate of return on the pension plan investments, net of pension plan investment expense, was 9.62%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

### Note 4: Net Pension Liability

The components of the net pension liability of the City for this Plan at April 30, 2017, were as follows:

Total pension liability	\$1,163,351,475
Plan fiduciary net position	(827,347,041)
City’s net pension liability	<u>\$336,004,434</u>
Fiduciary net position as a % of total pension liability	71.12%

**Note 5: Actuarial Methods and Assumptions**

An actuary from Cavanaugh Macdonald Consulting, LLC determines the total pension liability. The total pension liability as of April 30, 2017 was determined based on an actuarial valuation prepared as of April 30, 2016, rolled forward one year to April 30, 2017, using the following actuarial assumptions:

Inflation	3.00%
Salary increases, including inflation	3.75% to 8.75%
Long-term investment rate of return, net of plan investment expense, including inflation	7.50%

Mortality rates were based on the RP-2000 Healthy Annuitant Mortality Table for Males or Females as appropriate, with adjustments for mortality improvements based on Scale AA.

The actuarial assumptions used in the valuation are based on the results of the most recent actuarial experience study, which covered the 5-year period ending April 30, 2012. The actuarial experience study is dated October 3, 2013.

For purposes of calculating the total pension liability, future ad hoc COLAs of 2.5% (simple COLA) were assumed to be granted in all future years.

**Long-Term Expected Rate of Return** – The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best-estimates arithmetic real rates of return for each major asset class included in the Plan’s target asset allocation as of April 30, 2017 are summarized in the following table:

<b>Asset Class</b>	<b>Target Allocation</b>	<b>Long-Term Expected Real Rate of Return</b>
Global Equity	35%	5.40%
Fixed Income	30%	1.00%
Real Return	5%	2.75%
Real Estate	10%	3.75%
Absolute Return	15%	3.75%
Private Equity	5%	7.50%

# POLICE RETIREMENT SYSTEM OF KANSAS CITY, MISSOURI

## NOTES TO THE FINANCIAL STATEMENTS

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### Note 5: Actuarial Methods and Assumptions (Continued)

**Discount Rate** – The discount rate used to measure the total pension liability was 7.50%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and the City contributions will be made at rates equal to the employer actuarially determined contribution rate.

There was a change in the Municipal Bond Index Rate from the prior measurement date from 3.30% to the current rate of 3.78%.

**Sensitivity of the Net Pension Liability to Changes in the Discount Rate** – The following presents the net pension liability of the City, calculated using the discount rate of 7.50% as well as what the City’s net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6.50%) or one percentage point higher (8.50%) than the current rate:

	1% Decrease (6.50 %)	Current Discount Rate (7.50%)	1% Increase (8.50%)
Net pension liability	\$ 487,855,246	\$336,004,434	\$210,577,789

### Note 6: Risks and Uncertainties

The Plan invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and such changes could materially affect the amounts reported in the statement of fiduciary net position.

Plan contributions are made and the actuarial present value of accumulated plan benefits are reported based on certain assumptions pertaining to interest rates, inflation rates and employee demographics, all of which are subject to change. Due to uncertainties inherent in the estimation and assumption process, it is at least reasonably possible that changes in these estimates and assumptions in the near term would be material to the financial statements.

### Note 7: Litigation

The Plan is subject to claims and lawsuits that arise primarily in the ordinary course of operating a retirement system. It is the opinion of management that the disposition or ultimate resolution of such claims and lawsuits will not have a material adverse effect on the net position of the Plan.

**Note 8: Fair Value Measurements**

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value measurements must maximize the use of observable inputs and minimize the use of unobservable inputs. There is a hierarchy of three levels of inputs that may be used to measure fair value:

- Level 1** Quoted prices in active markets for identical assets or liabilities
- 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 the 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

**POLICE RETIREMENT SYSTEM OF KANSAS CITY, MISSOURI**

**NOTES TO THE FINANCIAL STATEMENTS**

**Note 8: Fair Value Measurements (Continued)**

**Recurring Measurements**

The following table presents the fair value measurements of assets and liabilities recognized in the accompanying financial statements measured at fair value on a recurring basis and the level within the fair value hierarchy in which the fair value measurements fall at April 30, 2017:

Investments by fair value level	Total Fair Value	Level 1	Level 2	Level 3
U.S. government securities	\$47,168,819	\$—	\$47,168,819	\$—
Corporate bonds and notes	85,392,334	—	85,392,334	—
Common and preferred stock	81,154,079	81,154,079	—	—
Government mortgage-backed securities	7,585,965	—	7,585,965	—
Short-term investment funds	5,764,087	5,764,087	—	—
All country world index fund	121,182,383	—	121,182,383	—
Foreign equities	54,752,372	54,745,646	—	6,726
Total investments by fair value level	<u>403,000,039</u>	<u>\$141,663,812</u>	<u>\$261,329,501</u>	<u>\$6,726</u>

**Investments measured at the net asset value (NAV) (A)**

Government agency fund	63,412,162
Real estate funds	110,924,864
Partnerships – equity	18,401,287
Partnerships – fixed income	27,157,993
Hedge fund of funds	87,738,098
Emerging markets equity funds	25,086,567
International small cap equity funds	11,700,542
Equity funds	78,611,738
Total investments measured at the NAV	<u>423,033,251</u>
Total investments measured at fair value	<u>\$826,033,290</u>

(A) Certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. The fair value amounts included above are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the statement of fiduciary net position.

Equity and short-term investment funds classified as Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Corporate and Governmental debt securities classified as Level 2 of the fair value hierarchy are valued using third-party pricing services based on market observable information such as market quotes for similar assets, as well as normal market pricing considerations such as duration, interest rates and prepayment assumptions.

**POLICE RETIREMENT SYSTEM OF KANSAS CITY, MISSOURI**

**NOTES TO THE FINANCIAL STATEMENTS**

**Note 8: Fair Value Measurements (Continued)**

The fair value estimates presented herein are based on pertinent information available to management as of April 30, 2017. Although management is not aware of any factors that would significantly affect the estimated fair value amounts, such amounts have not been comprehensively revalued for purposes of these financial statements since that date, and current estimates of fair value may differ significantly from the amounts presented herein.

Where quoted market prices are available in an active market, securities are classified within Level 1 of the valuation hierarchy. If quoted market prices are not available, then fair values are estimated by using quoted prices of securities with similar characteristics or independent asset pricing services and pricing models, the inputs of which are market-based or independently sourced market parameters, including, but not limited to, yield curves, interest rates, volatilities, prepayments, defaults, cumulative loss projections and cash flows. Such securities are classified in Level 2 of the valuation hierarchy. In certain cases where Level 1 or Level 2 inputs are not available, securities are classified within Level 3 of the hierarchy.

The valuation method for investments measured at the net asset value (NAV) per share (or its equivalent) is presented below.

	Fair Value	Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Government agency fund (A)	\$63,412,162	\$—	Daily	1 Day
Real estate funds (B)	110,924,864	—	Quarterly	90 Days
Partnerships - equity (C)	18,401,287	1,915,387		
Partnerships - fixed income (D)	27,157,993	—	Monthly	10 Days
Hedge fund of funds (E)	87,738,098	—	Quarterly	70 Days
Emerging markets equity funds (F)	25,086,567	—	Monthly	10 Days
International small cap equity funds (G)	11,700,542	—	Monthly	8 Days
Equity funds (H)	78,611,738	—	Daily	1 Day
<b>Total investments measured at the NAV</b>	<b>\$423,033,251</b>			

- (A) This category includes government agency funds which trade daily on public markets.
- (B) This category includes two open-ended real estate funds that invest in U.S. commercial real estate. Periodic distributions from each fund are made as the underlying investments of the funds are liquidated. Redemptions can be made quarterly.
- (C) This category includes two private equity fund of funds that invest primarily in U.S. and International Corporate Finance and Venture Capital. Distributions from each fund are made as the underlying investments of the funds are liquidated. It is estimated the underlying assets of the funds will be liquidated over the next three to five years.

**Note 8: Fair Value Measurements (Continued)**

- (D) This category includes a commingled high yield bond fund which trades monthly. The underlying high yield bonds trade daily on public markets.
- (E) This category includes a hedge fund of funds which invests in 29 hedge funds that pursue multiple strategies to diversify risks and reduce volatility. The hedge funds' composite portfolio for this type includes investments in approximately 27% equities, 25% credit, 15% relative value, 13% event driven, 12% Macro and Commodities and 7% Multi- Strategy. Investments representing approximately 71% of the value of the investments in this type can be redeemed quarterly and 17% annually or less. The remaining 12% can be redeemed between 18 and 36 months.
- (F) This category includes a commingled emerging markets equity fund which trades monthly. The underlying emerging market stocks trade daily on public markets.
- (G) This category includes a commingled international small cap equity fund which trades monthly on public markets.
- (H) This category includes commingled equity funds which trade daily on public markets.

**Note 9: Retirement Plan**

The Retirement System has a 408(k) SEP retirement plan covering its employees that meet certain eligibility requirements. The Retirement System's contributions to its employees' SEP are determined by the Retirement Board. Contributions to the SEP were \$59,530 for fiscal year 2017.

**POLICE RETIREMENT SYSTEM OF KANSAS CITY, MISSOURI**  
**REQUIRED SUPPLEMENTARY INFORMATION**

**Schedule of Changes in Net Pension Liability and Related Ratios**

April 30, 2017

	2017	2016	2015
<b>Total pension liability</b>			
Service cost	\$28,978,200	\$27,423,797	\$26,900,131
Interest on total pension liability	81,761,243	79,502,922	76,210,579
Difference between expected and actual experience	(13,081,322)	(11,656,885)	–
Effect of assumption changes or inputs	(76,763,170)	40,565,354	14,987,963
Benefit payments, including member refunds	<u>(60,163,764)</u>	<u>(58,588,761)</u>	<u>(55,405,669)</u>
<b>Net change in total pension liability</b>	<b>(39,268,813)</b>	<b>77,246,427</b>	<b>62,693,004</b>
<b>Total pension liability – beginning</b>	<u>1,202,620,288</u>	<u>1,125,373,861</u>	<u>1,062,680,857</u>
<b>Total pension liability – ending</b>	<u>1,163,351,475</u>	<u>1,202,620,288</u>	<u>1,125,373,861</u>
<b>Plan Fiduciary Net Position</b>			
Net investment income	72,448,615	(3,094,475)	46,824,719
Net securities lending income	182,798	135,246	126,375
City contributions	30,979,978	30,272,063	28,933,261
Member contributions	11,751,066	10,748,236	10,874,921
Benefits paid	(59,554,625)	(57,970,768)	(55,006,617)
Refunds of contributions	(609,139)	(617,993)	(399,052)
Administrative expenses	<u>(642,688)</u>	<u>(561,591)</u>	<u>(549,742)</u>
<b>Net change in fiduciary net position</b>	<b>54,556,005</b>	<b>(21,089,282)</b>	<b>30,803,865</b>
<b>Plan fiduciary net position – beginning</b>	<u>772,791,036</u>	<u>793,880,318</u>	<u>763,076,453</u>
<b>Plan fiduciary net position – ending</b>	<u>827,347,041</u>	<u>772,791,036</u>	<u>793,880,318</u>
<b>Net pension liability, ending</b>	<u>\$336,004,434</u>	<u>\$429,829,252</u>	<u>\$331,493,543</u>
<b>Fiduciary net position as a percentage of total pension liability</b>	71.12%	64.26%	70.54%
<b>Covered payroll</b>	\$90,571,000	\$91,952,000	\$91,750,000
<b>Net pension liability as a percentage of covered payroll</b>	370.99%	467.45%	361.30%

Note to Schedule: This schedule is intended to show a ten-year trend. Additional years will be reported as they become available.



**POLICE RETIREMENT SYSTEM OF KANSAS CITY, MISSOURI**  
**REQUIRED SUPPLEMENTARY INFORMATION**

**Schedule of City Contributions**

Last Ten Fiscal Years

	2017	2016	2015	2014	2013
Actuarially determined employer contribution	\$30,980,000	\$30,272,000	\$28,933,000	\$35,062,000	\$31,653,000
Actual city contributions	30,980,000	30,272,000	28,933,000	22,242,000	16,934,000
Annual contribution deficiency	\$-	\$-	\$-	\$12,820,000	\$14,719,000
Covered payroll	\$90,571,000	\$91,952,000	\$91,750,000	\$89,320,000	\$86,036,000
Actual contributions as a percentage of covered payroll	34.21%	32.92%	31.53%	24.90%	19.68%

	2012	2011	2010	2009	2008
Actuarially determined employer contribution	\$28,277,000	\$32,020,000	\$22,154,000	\$24,619,000	\$23,181,000
Actual city contributions	16,477,000	16,532,000	16,645,000	16,701,000	15,747,000
Annual contribution deficiency	\$11,800,000	\$15,488,000	\$5,509,000	\$7,918,000	\$7,434,000
Covered payroll	\$83,784,000	\$87,105,000	\$84,494,000	\$84,775,000	\$79,935,000
Actual contributions as a percentage of covered payroll	19.67%	18.98%	19.70%	19.70%	19.70%

**Schedule of Investment Returns**

Fiscal Year Ending April 30	2017	2016	2015
Annual money-weighted rate of return, net of investment expense	9.62%	-0.41%	6.08%

Note to Schedule: This schedule is intended to show a ten-year trend. Additional years will be reported as they become available.

## POLICE RETIREMENT SYSTEM OF KANSAS CITY, MISSOURI

### NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

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**Changes of benefit and funding terms** – The following changes to the plan provisions were reflected in the valuation performed as of April 30 listed below:

**2013** – The 2013 Missouri General Assembly passed Senate Bill 215/House Bill 418 which provided for the following changes to the System:

- Increased the number of years of creditable service from 30 to 32 (which results in the maximum benefit increasing from 75% to 80% of final average pay).
- Created a new benefit tier for new hires with the same benefit structure except final compensation is based on the average of the highest three years, eligibility for service retirement is the earlier of 27 years of service or age 60 with 15 years of service, and the form of payment is a joint and 50% survivor benefit, if married.
- Required the City to contribute the full employer actuarial contribution plus an additional \$200 per month for every member entitled to receive a supplemental benefit.

The Retirement Board increased the employee contribution rate by 1.00% from 10.55% to 11.55%.

**2011** – A new employer policy allowed police officers to continue working until they reach 32 years of service, although benefit accruals and member contributions ended at 30 years.

**2008** – Plan provisions were changed, effective August 28, 2008, to require that a member must be in active service to be eligible for either a duty related or non-duty related disability retirement benefit.

## POLICE RETIREMENT SYSTEM OF KANSAS CITY, MISSOURI

### NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

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**Changes in actuarial assumptions and methods** – The following changes to the plan provisions were reflected in the valuations as listed below:

#### **4/30/2017 Valuation:**

- The amortization of the unfunded actuarial accrued liability at April 30, 2017 is amortized over a closed 30-year period. Subsequent changes in the unfunded actuarial liability due to experience are amortized in a separate base with payments over a closed 20-year period.

#### **4/30/2013 Valuation:**

- Reduction of the investment return assumption from 7.75% to 7.50%.
- Reduction of the assumed cost of living adjustment from 3.00% to 2.50%.
- Reduction of the general wage increase assumption from 4.00% to 3.75%.
- Modification of retirement rates to reflect the change in the benefit structure (years of creditable service increasing from 30 to 32), the change in the mandatory retirement policy of the Police Department (from 32 to 35 years of service), and to better reflect the actual, observed experience.
- Lowered termination rates.
- Adjusted the merit scale component of the salary scale to reflect the current pay scale.
- The amortization of the UAAL was changed to be a single base, recalculated each year and amortized as a level percentage of payroll over an open 30-year period.

#### **4/30/2011 Valuation:**

- The Board of Trustees adopted a change in the asset smoothing method and implemented it by resetting the actuarial value of assets equal to the fair value of assets as of April 30, 2011. The new smoothing method recognizes the difference between the actual and expected return on the fair value of assets evenly over a five-year period.

#### **4/30/2008 Valuation:**

- Changed the mortality table to the RP-2000 Table. Scale AA is used to project mortality improvements in future years.
- Adjusted the retirement rates to better fit observed experience.
- Increased the probability of disability for active members.
- Decreased the termination of employment rates.
- Changed from an age-based to a service-based salary increase assumption.
- Assume that all vested terminating members will elect a deferred benefit.

## POLICE RETIREMENT SYSTEM OF KANSAS CITY, MISSOURI

### NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

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The Actuarially Determined Contribution rates, as a percentage of pensionable payroll, used to determine the Actuarially Determined Contribution amounts in the Schedule of City Contributions are calculated as of April 30, two years prior to the end of the year in which Actuarially Determined Contribution amounts are reported. In the 12 years prior to FY 2014, the City contributed a fixed contribution rate (19.70%) of covered payroll, regardless of the amount of the actuarial determined contribution rate. Beginning September 1, 2013, the City began to contribute the full dollar amount of the Actuarially Determined Contribution.

The following actuarial methods and assumptions were used to determine the Actuarially Determined City Contribution reported in the most recent fiscal year, which was based on the April 30, 2015 actuarial valuation:

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Actuarial cost method	Entry age normal
Amortization method	Level percentage of payroll, closed
Remaining amortization period	30 years
Asset valuation method	5 years smoothing of actual vs expected return on fair value
Price inflation	3%
Salary increases	3.75% to 8.75%, including inflation
Investment rate of return	7.50%, net of investment expenses and including inflation
Future cost-of-living adjustments	2.50% (simple)

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**POLICE RETIREMENT SYSTEM OF KANSAS CITY, MISSOURI**

**SCHEDULE OF EXPENSES**

Year Ended April 30, 2017

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**Investment Expenses**

Bank custodial fees and expenses	\$97,109
Financial management expenses	4,460,132
Financial consultation	121,581
<b>Total</b>	<b>\$4,678,822</b>

**Administrative Expenses**

Salaries and payroll taxes	\$379,413
Legal	7,290
Audit	25,724
Medical fees	27,328
Actuarial fees	43,778
Fringe benefits	73,153
Printing and office expense	6,368
Postage	5,342
Board meetings	705
Travel and education expense	18,611
Insurance	3,793
Legislative consultation	25,878
Other	25,305
<b>Total</b>	<b>\$642,688</b>

**POLICE RETIREMENT SYSTEM OF KANSAS CITY, MISSOURI**

**SCHEDULE OF ADDITIONS BY SOURCE AND DEDUCTIONS BY TYPE**

Years Ended April 30, 2011 through 2017

**ADDITIONS BY SOURCE**

<b>Fiscal Year Ended</b>	<b>Employee Contributions</b>	<b>City Contributions</b>	<b>Investment Income (Loss)</b>	<b>Total</b>
2011	\$9,223,994	\$16,532,015	\$82,002,086	\$107,758,095
2012	8,894,208	16,476,608	(3,584,270)	21,786,546
2013	9,343,416	16,933,694	55,542,099	81,819,209
2014	10,198,831	22,241,769	66,842,964	99,283,564
2015	10,874,921	28,933,261	46,951,094	86,759,276
2016	10,748,236	30,272,063	(2,959,229)	38,061,070
2017	11,751,066	30,979,978	72,631,413	115,362,457

**DEDUCTIONS BY TYPE**

<b>Fiscal Year Ended</b>	<b>Benefits</b>	<b>Administrative Expenses</b>		<b>Total</b>
		<b>General</b>	<b>Refunds</b>	
2011	\$46,377,135	\$631,281	\$557,214	\$47,565,630
2012	48,578,196	552,751	549,026	49,679,973
2013	50,979,009	576,470	816,459	52,371,938
2014	52,627,501	535,628	361,910	53,525,039
2015	55,006,617	549,742	399,052	55,955,411
2016	57,970,768	561,591	617,993	59,150,352
2017	59,554,625	642,688	609,139	60,806,452

# Investment Section

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October 11, 2017

Board of Trustees  
Police Retirement System of Kansas City, Missouri  
9701 Marion Park Drive  
Kansas City, MO 64137

Dear Board Members,

This letter serves to provide an overview of capital markets and the Systems' portfolio positioning for the fiscal year ending April 30, 2017.

The 2017 fiscal year (May 1, 2016 to April 30, 2017) was significantly influenced by unexpected political outcomes, including the surprise vote by the citizens of the United Kingdom to exit the European Union in June 2016, and the U.S. election results in November 2016. While risk-oriented markets initially fell following each outcome, global equity markets experienced gains during the fiscal year amid supporting comments from global central banks, investors' expectations that the new administration would enact fiscal stimulus, deregulation, and tax reform, and overall improving global market fundamentals. The U.S. equity markets, as measured by the S&P 500 Index, returned 17.9% as U.S. economic conditions continued to improve. Developed non-U.S. equity markets, as measured by the MSCI EAFE Index, rebounded from the prior fiscal year, returning 11.3%, while emerging markets, as measured by the MSCI EM Index, gained 19.1%. The weakening of the dollar during the second half of the fiscal year and election results in France and the Netherlands reduced political uncertainty and further supported favorable international equity performance.

The continued improvement in U.S. economic fundamentals prompted the Federal Reserve Open Market Committee ("FOMC") to raise policy rates by 25 basis points, from 0.25%-0.50% to 0.50%-0.75%, at its December 2016 meeting, one year following its prior rate increase. The FOMC cited strengthened labor market conditions and progress toward its inflation objectives as factors driving their decision, and further guided the markets toward possibly one or two additional rate hikes in 2017. The potential for a more hawkish Federal Reserve did lead to interest rate volatility.

Similarly in Europe, the European Central Bank ("ECB") turned more positive on Euro-zone economic fundamentals, citing a long list of recent positive data points including strong euro-zone business surveys, unemployment rates at a 7-year low, and inflation measures consistent with the ECB's 2% target. Though monetary policy remained unchanged, the ECB President, Mario Draghi, acknowledged the ECB would not likely authorize new supplements to the Quantitative Easing ("QE") program. The Bank of Japan similarly held monetary policy steady, but did not provide indication of a tightening on the horizon as the country's core CPI was marginally positive.

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Fixed income markets produced mixed results during the fiscal year. U.S. bond markets generated positive returns, overcoming negative returns experienced during the fourth quarter of 2016 due to the December 2016 and subsequent anticipated interest rate hikes. However, international fixed income declined largely as a result of the strengthening of the U.S. dollar during the last quarter of 2016. The Barclays U.S. Aggregate Bond Index returned 0.8%, while the Barclays Global Aggregate Bond Index lost 2.1%. Performance for inflation-sensitive assets varied as the Wilshire U.S. REIT Index returned 4.8% and the Bloomberg Commodity Index declined 1.3%. While commodity markets rebounded in 2016, losses were experienced in 2017 as oil prices declined.

The market value of the Police Retirement System investments increased from \$765.3 million to \$827.2 million in the year ending April 30, 2017. The System's current actuarial assumed rate of return is 7.5%, which represents the System's long-term return goal. The System's overall investment return over the past year was 10.1% and the System's three-year annualized return was 5.5%. The seven-year annualized return for the System was 6.9% and the System's ten-year annualized return was 4.7%.<sup>1</sup>

During the fiscal year, Staff, the Investment Committee, and RVK, Inc. ("RVK") reviewed the System's asset allocation targets given a reduction to allocation to private equity and declines in asset class return expectations since the System's prior asset allocation review. In the coming year, the Investment Committee and RVK will propose modest changes to the System's asset allocation and will review each asset class' structure, recommending any enhancements that can improve potential return and/or diversification.

The System's investment policies, goals, and objectives, as well as the performance of its assets continue to be regularly monitored and evaluated by Staff, the Board, the Investment Committee, and RVK. These evaluations include analysis of the investment management firms and the custodial bank that serve the System. The System's current managers continued to meet with the Investment Committee throughout the year as part of Staff and the Investment Committee's due diligence and monitoring process.

The System's publicly traded assets managed through separate accounts are held in custody at Northern Trust Bank. Market values and returns referenced above are based upon statements prepared by Northern Trust Bank. Their statements are, to the best of our knowledge, reliable and accurate. Investment performance is calculated using a time-weighted rate of return methodology (gross of fees) based upon market values and cash flows.

We look forward to continuing to work with Staff, the Investment Committee, and the Board to monitor, review, and best position the System's portfolio to meet its long-term goals and objective.

Sincerely,



Rebecca Gratsinger, CFA  
Chief Executive Officer

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<sup>1</sup> Returns are gross of fees.

# Police Employees'

## Summary of Investment Policies and Objectives

Investment performance objectives were established to give the Retirement System a method to evaluate the investment return of the system's portfolio and individual managers. The system's overall annualized total net of fees return, as measured over the course of a typical market cycle and/or a minimum period of five years, should exceed the return that would have been achieved if the system had been fully invested according to the approved asset allocation policy benchmark. The policy benchmark consists of 35% MSCI All Country World Investable Markets Index (Net), 30% Bloomberg US Aggregate Bond Index, 15% Absolute Return Custom Benchmark, 10% NCREIF ODCE Index (Net), 5% Real Return Custom Benchmark, and 5% Cambridge US Private Equity Index (one quarter lag).

The portfolio outperformed the policy benchmark by 1.57% with a 9.55% return (net of fees) for the fiscal year.

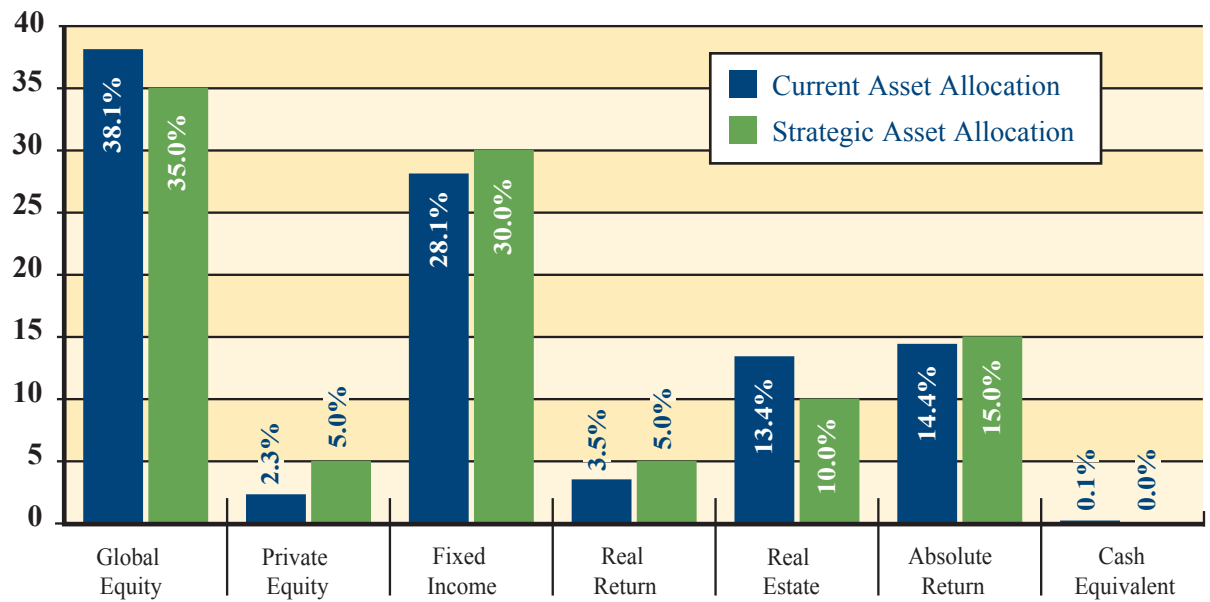
During the fiscal year, the Retirement Board monitored its strategic asset allocation policy using seven broad and distinct asset classes in the portfolio. Return, risk, and diversification assumptions have been established for each asset class. Based on its determination of the appropriate risk tolerance and its long-term return expectations, the Retirement Board has implemented the following strategic asset allocation: Global Equity 35%, Fixed Income 30%, Absolute Return 15%, Real Estate 10%, Real Return/Diversified Inflation Hedge 5%, Private Equity 5%, and Cash 0%. Based on the current RVK, Inc. capital market assumptions, the expected long term return for the strategic asset allocation is 6.1% and expected standard deviation (risk) is 9.8%.

The current strategic asset allocation is 35% equities, 30% bonds and cash, and 35% alternatives. The equity allocation is made up entirely of global stocks. The bond and fixed income allocation is divided into core fixed income, high yield bonds, global bonds and cash. The alternative allocation is divided into real return/diversified inflation hedge strategies, core and value added real estate, private equity, and absolute return strategies. The small differences between the year-end allocation and the target allocation are due to market performance of the asset classes.

The Retirement Board met with staff from RVK, Inc. periodically to review the performance of each of the investment managers hired by the Retirement Systems. Performance is reviewed both on an absolute basis (did the manager make or lose money) and on a relative basis (how did the manager perform compared to their designated benchmark). RVK also provides comparative statistical information about the source of the manager's performance against the benchmark and how their performance stacked up against other managers in their asset class.

# Asset Allocation

Year Ending April 30, 2017



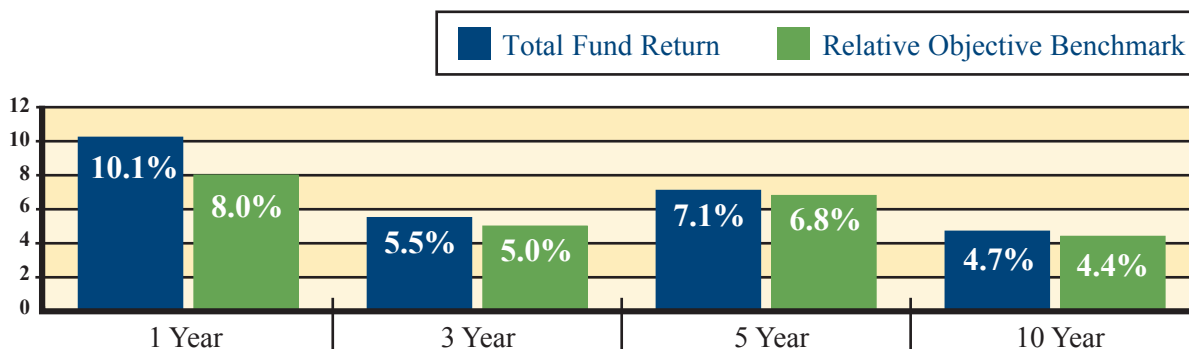
## Schedule of Investment Results

Comparative investment results are for the fiscal year ending April 30, 2017. Results for Real Estate and Private Equity managers are available for the quarter ending March 31, 2017 rather than for the fiscal year ending April 30, 2017.

### Annualized Manager Returns as of April 30, 2017

Investment Manager	Investment Class	One Year	Three Years	Five Years	Ten Years
FCI Advisors	Bonds & Fixed Income	0.6%	2.9%	2.4%	4.6%
<i>Bloomberg US Govt/Credit</i>		0.9%	2.7%	2.4%	4.4%
Shenkman Capital Mgmt	High Yield Bonds	10.6%	4.2%	5.8%	
<i>BOA ML US Hi Yld Master II</i>		13.7%	4.8%	6.9%	
Brandywine Global Group	Bonds & Fixed Income	1.5%			
<i>Citi Wrld Gov't Bond Index</i>		-3.6%			
Fidelity	Real Return	4.5%			
<i>Fidelity Strat RR Comp Index</i>		3.1%			
Artisan Partners	Global Equities	20.5%	11.3%		
LSV Global LC Value	Global Equities	15.8%	5.8%		
<i>MSCI World</i>		14.7%	5.7%		
Wellington US SC 2000	Global Equities	29.3%			
<i>Russell 2000</i>		25.6%			
Wellington Int'l SC Rsrch	Global Equities	14.2%			
<i>MSCI World Ex US SC</i>		12.0%			
Northern Trust Index	Global Equities	16.0%	6.0%		
<i>MSCI ACW IMI</i>		15.4%	5.4%		
LSV Emerging Mkts	Global Equities	27.0%	3.2%	3.4%	
<i>MSCI Emerging Mkts</i>		19.1%	1.8%	1.5%	
LSV EM Small Cap	Global Equities	24.6%	5.5%		
<i>MSCI EM Small Cap</i>		14.1%	1.9%		
Morgan Stanley	Real Estate	9.3%			
Prudential PRISA II	Real Estate	8.2%			
<i>NCREIF ODCE</i>		7.4%			
GMO	Absolute Return	8.1%			
<i>MSCI ACW 60% / B Gbl Agg 40%</i>		8.0%			
Grosvenor	Absolute Return	8.6%			
<i>HFN FOF Multi-Strat Index</i>		5.5%			
Abbott Capital	Private Equity	6.0%	9.1%	10.2%	5.5%
JP Morgan	Private Equity	5.5%	13.5%	13.2%	8.3%
<i>Cambridge US Prvt Equ Index</i>		8.7%	10.8%	13.1%	10.7%
<b>Total Fund</b>		<b>10.1%</b>	<b>5.5%</b>	<b>7.1%</b>	<b>4.7%</b>
<b>Relative Objective</b>		<b>8.0%</b>	<b>5.0%</b>	<b>6.8%</b>	<b>4.4%</b>

## Schedule of Investment Results, (Continued)



Returns provided by R V Kuhns & Associates, Inc. to the Kansas City Police Employees' Retirement System.

Note: Performance returns were calculated using a time weighted rate of return based on market values.

## Schedule of Largest Assets Held

### Ten Largest Equity Holdings April 30, 2017

	Fair Value
1) IHS Inc. Class A	\$6,526,709
2) Visa Inc. Class A	3,668,047
3) Alphabet, Inc. Class A	2,902,993
4) Boston Scientific Corp	2,666,411
5) Facebook Inc. Class A	2,363,733
6) S&P Global, Inc.	2,276,131
7) Genmab	2,210,245
8) Bank of America Corp.	2,194,964
9) Anthem, Inc.	2,075,443
10) Regeneron Pharmaceuticals, Inc.	2,037,242

### Ten Largest Bond Holdings April 30, 2017

	Fair Value
1) US Treasury Bonds 4.25% Due 2039	\$11,440,372
2) US Treasury Bonds 1.00% Due 2018	5,231,541
3) US Treasury Bonds 1.5% Due 2019	4,770,781
4) US Treasury Bonds 1.625% Due 2026	3,884,750
5) General Electric Cap Corp. 6.75% Due 2032	3,422,483
6) JP Morgan Chase 3.25% Due 2022	3,329,836
7) US Treasury Bonds 3.625% Due 2044	3,273,262
8) Amazon.com, Inc. 2.5% Due 2022	3,252,763
9) AT&T Inc 5.8% Due 2019	3,195,258
10) FNMA Bond 1.5% Due 2021	2,947,650

A complete list of portfolio holdings is available upon request.

# Schedule of Brokerage Commissions

Year Ending April 30, 2017

Brokerage Firms	Shares Traded	Dollar Volume of Trades	Commission	
			Dollar Amount	Value Per Share
ITG Inc.	141,707	12,222,193	1,924	0.014
Citigroup Global Markets Inc.	184,821	2,200,102	1,674	0.009
Morgan Stanley and Co., LLC	226,096	3,009,079	1,554	0.007
Goldman Sachs and Co.	78,586	2,149,098	1,538	0.020
Credit Suisse Securities (USA) LLC	378,275	2,335,985	1,524	0.004
Merrill Lynch Piece Fenner & Smith	114,981	597,500	1,303	0.011
Societe Generale London Branch	166,623	2,652,820	1,287	0.008
Smbc Nikko Securities America, Inc	34,300	1,552,450	1,242	0.036
UBS Limited	97,846	1,626,370	1,153	0.012
William Blair and Company	23,025	595,746	1,151	0.050
UBS Securities Asia Limited	222,828	1,231,002	1,016	0.005
Merrill Lynch International Limited	121,164	1,470,249	973	0.008
RBC Capital Markets, LLC	18,230	475,898	912	0.050
JPMorgan Securities (Asia Pacific)	55,300	626,133	891	0.016
Bradesco S.A. CTVM	69,700	890,374	891	0.013
Jefferies LLC	33,843	712,941	850	0.025
Others (Including 100 Brokerage Firms)	62,687,951	89,987,476	15,226	0.000
<b>Totals</b>	<b>64,655,276</b>	<b>\$124,335,417</b>	<b>\$35,108</b>	<b>\$0.287</b>
Zero Commission Trades excluded from above	11,252,629	\$21,769,313		

# Investment Summary

Year Ending April 30, 2017

Investment Manager	Date Hired	Investment Class	Portfolio Fair Value As of 4/30/16	% of Total Fair Value
FCI Advisors	Oct 1974	Fixed Income	\$140,147,119	17.0%
Cash			5,764,087	0.7%
Prudential	Sep 2004	Real Estate	61,421,805	7.4%
Abbott Capital	Aug 2005	Private Equity	13,221,381	1.6%
JPMorgan	Jan 2006	Private Equity	5,179,906	0.6%
LSV	Aug 2007	Equity Emerging Markets	16,790,719	2.0%
Shenkman Capital	May 2009	Fixed Income	27,157,993	3.3%
LSV	Jan 2014	Equity Emerging Markets Small Cap	8,295,848	1.0%
Northern Trust	Feb 2014	Global Equity Index	121,182,383	14.7%
Artisan Partners	Apr 2014	Global Equity	67,494,125	8.2%
LSV	Apr 2014	Global Equity	68,412,326	8.3%
Wellington	May 2014	Equity International Small Cap	11,700,542	1.4%
Wellington	May 2014	Equity US Small Cap	17,899,686	2.2%
Grosvenor	Jul 2014	Absolute Return - Hedge Fund	87,738,098	10.6%
GMO	Aug 2014	Absolute Return - GTAA	31,496,218	3.8%
Brandywine	Sep 2014	Fixed Income	63,412,162	7.7%
Morgan Stanley	Sep 2014	Real Estate	49,503,059	6.0%
Fidelity	Oct 2014	Real Return	29,215,833	3.5%
<b>Total</b>			<b>\$826,033,290</b>	<b>100%</b>

# Fees and Commissions

Year Ending April 30, 2017

Investment Manager	Management Fee	Commission Expense	Commission per Share
FCI Advisors	\$219,096	\$-	\$-
Prudential	469,225	-	-
Abbott Capital	189,720	-	-
JPMorgan	68,400	-	-
Northern Trust	97,102	-	-
LSV	594,600	6,298	-
Shenkman Capital	130,191	-	-
Artisan Partners	468,110	28,810	0.020
Wellington	180,000	-	-
Grosvenor	785,724	-	-
GMO	253,460	-	-
Brandywine	273,600	-	-
Morgan Stanley	508,486	-	-
Fidelity	222,417	-	-
<b>Total</b>	<b>\$4,460,132</b>	<b>\$35,108</b>	<b>\$0.001</b>



# Actuarial Section

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October 2, 2017

The Retirement Board  
Police Retirement System of  
Kansas City, Missouri  
9701 Marion Park Drive, B  
Kansas City, MO 64137

Dear Members of the Board:

The basic financial objective of the Police Retirement System of Kansas City, Missouri is to establish and receive contributions which:

- when expressed in terms of percentages of active member payroll will remain approximately level from generation to generation, and
- when combined with present assets and future investment return will be sufficient to meet the financial obligations of the Police Retirement System of Kansas City, Missouri to present and future retirees and beneficiaries.

The financial objective is addressed within the annual actuarial funding valuation. The valuation process develops contribution rates that are sufficient to fund the plan's current cost (i.e. the costs assigned by the valuation method to the year of service about to be rendered), as well as to fund the unfunded actuarial accrued liability as a level percent of active member payroll over a closed 30-year period, beginning with the April 30, 2017 valuation. The most recent valuation was completed based upon population data, asset data, and plan provisions as of April 30, 2017.

The plan administrative staff provides the actuary with data for the actuarial valuation. The actuary relies on the data after reviewing it for internal and year to year consistency. The actuary summarizes and tabulates population data in order to analyze longer term trends. The plan's external auditor also audits the actuarial membership data annually.

For funding valuation purposes, an asset smoothing method is used to develop the actuarial value of assets. The smoothing method recognizes the difference between the actual and expected return on the market value of assets over a five-year period.

Actuarial valuations for funding the System are based upon assumptions regarding future activity in specific risk areas including the rates of investment return and payroll growth, eligibility for the various classes of benefits, and longevity among retired lives. These assumptions are adopted by the Board after considering the advice of the actuary and other professionals. In our opinion, the assumptions and the methods comply with the requirements of Actuarial Standards of Practice. Each actuarial valuation takes into account all prior differences between actual and assumed experience in each risk area and adjusts the actuarial contribution rates as needed. The April 30, 2017 actuarial valuation reflects the actuarial assumptions and methods included in the experience study covering the five year period from May 1, 2007 to April 30, 2012, as adopted by the Board based on advice of the actuary, with one exception. The Board adopted a new Funding Policy at their November 8, 2016 meeting. As a result, the amortization policy for the unfunded actuarial accrued liability was changed from an open 30-year period (reset to 30 each valuation) to a



closed 30-year period (declining by one each valuation), beginning with the April 30, 2017 valuation. Any new unfunded actuarial accrued liability generated as a result of actuarial experience in subsequent years will be layered and amortized over a closed 20-year period.

The unfunded actuarial accrued liability (UAAL) increased from the last valuation by \$10.8 million due to the actual experience. There was an actuarial loss of \$11.5 million on assets and an actuarial gain of \$4.1 million on demographic experience. The liability gain was largely due to salary increases that were lower than expected, based on the actuarial assumptions.

The 2013 session of the Missouri General Assembly passed legislation that modified the benefit provisions for members hired on or after August 28, 2013 (called Tier II). As a result, the normal cost for this group of members is lower than the normal cost rate for members hired before that date. As of April 30, 2017, there were 132 members in Tier II out of a total of 1,286 active members (about 10% of total actives) so the Tier II members had little impact on the results of the April 30, 2017 valuation. Over time, the normal cost rate is expected to decline as the pre-August 28, 2013 members retire or leave covered employment and are replaced by members covered by Tier II. However, it will likely take 10 to 15 years before a noticeable difference is observed in the valuation results.

The System is 76% funded as of April 30, 2017 based on the actuarial value of assets. However, reflecting the impact of the Tier II benefit structure for future hires and the City's commitment to contribute the full actuarial contribution rate, the funded ratio of the System is expected to increase over the next thirty years if all actuarial assumptions are met.

Cavanaugh Macdonald also prepared actuarial computations as of April 30, 2017 for purposes of fulfilling financial accounting requirements for the System under Governmental Accounting Standards Board (GASB) Statement No. 67, the results are presented in a separate report dated August 31, 2017. The assumptions used in the funding valuation report were also used in the GASB 67 report. In addition, the entry age normal actuarial cost method, which is required to be used under GASB 67, is also used in the funding valuation report. The actuarial assumptions and methods used in both the funding and the GASB 67 valuation meet the parameters set by the Actuarial Standards of Practice (ASOPs), as 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.

The actuary prepared, or assisted in preparing, the following supporting information for the Comprehensive Annual Financial Report:

### **Financial Section**

- Total Pension Liability
- Net Pension Liability
- Sensitivity Analysis
- Schedule of Changes in the Net Pension Liability
- Schedule of City Contributions



## Actuarial Section

- Summary of Assumptions
  - Funding Method, Asset Valuation Method, Interest Rate
  - Payroll Growth
  - Probabilities of Age & Service Retirement
  - Probabilities of Separation from Active Employment Before Age & Service Retirement
- Short-Term Solvency Test
- Membership Data
- Analysis of Financial Experience
- Schedule of Funding Progress
- Computed and Actual City Contributions

Respectfully submitted,

CAVANAUGH MACDONALD CONSULTING, LLC

*Patrice Beckham*

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



This work product was prepared solely for the Police Retirement System of Kansas City for the purposes described herein and may not be appropriate to use for other purposes. CMC does not intend to benefit and assumes no duty or liability to other parties who receive this work.

## Summary of Actuarial Assumptions and Methods

Actuarial assumptions are suggested by the retirement system actuary and approved by the Retirement Board.

The investment rate of return is 7.50% per year (adopted 7/9/13) based on an underlying rate of inflation of 3.0% per year. (Adopted 2/12/08)

The System uses a 5-year smoothing of actual vs. expected return on market value approach to value plan assets for actuarial purposes. (Adopted 9/20/11)

For healthy and disabled retirees and surviving beneficiaries, and all active employees, the System uses the RP-2000 Tables for both males and females (adopted 2/12/08).

The rates to measure the probabilities of age and service retirements are included in the Rates of Retirement table on the following pages.

Tables for Rates of Separation from Active Membership and Rates of Disability are shown on the following pages.

The projected average salary increase attributable to inflation is 3.75% (adopted 7/9/13); merit and longevity increases range from 0.0% to 5.0% (adopted 7/9/13) depending upon the sample years of service. These increases include an underlying assumption of 3.0% for inflation (adopted 2/12/08). The table for Pay Increase Assumptions is shown on the following pages.

Normal cost and the allocation of actuarial present values between service rendered before and after the valuation date were determined using the entry age normal actuarial cost method. Unfunded actuarial accrued liabilities were amortized by level percent of payroll contributions (principal and interest combined) over a closed 30 year period. (Adopted 11/8/16)

The System assumes the Retirement Board will grant a 2.5% cost of living adjustment, as allowed by state statute, in each year that statutory provisions are met. (Adopted 7/9/13)

The System periodically prepares a study using actual experience in order to develop assumptions to be used in its actuarial valuations. The latest study was completed in July 2013 for the period May 1, 2007 through April 30, 2012. The Retirement Board adopted the recommendations and assumptions from the July 2013 experience study for the valuation dated April 30, 2013 at the July 9, 2013 board meeting.

The most recent valuation was completed by Cavanaugh Macdonald Consulting, LLC and was based on members of the System as of April 30, 2017. All census data was supplied by the System and was subject to reasonable consistency checks. Cavanaugh Macdonald Consulting, LLC completed the 2011 through 2017 valuations. Milliman, Inc. completed the 2007 through 2010 valuations. Gabriel, Roeder, Smith & Company completed the valuations from 2002 through 2006. William M. Mercer, Inc. completed all previous valuations.

# Summary of Actuarial Assumptions and Methods (Continued)

**Mortality Tables.** For active members, the RP-2000 Employee Table using Scale AA to model future mortality improvement was used. (Adopted 2/12/08)

For healthy retirees, the RP-2000 Healthy Annuitant Table using Scale AA to model future mortality improvement was used. (Adopted 2/12/08)

For disabled retirees, the RP-2000 Healthy Annuitant Table set forward 5 years using Scale AA to model future mortality improvement was used. (Adopted 2/12/08)

**Rates of separation from active membership.** The rates do not apply to members eligible to retire and do not include separation on account of death or disability. All vested members are assumed to leave their contributions with the Retirement System and receive a deferred benefit. This assumption measures the probabilities of members remaining in employment. (Adopted 7/9/13)

Sample Ages	% of Active Members Separating within Next Year
	All Members
25	5.51%
30	3.61%
35	2.21%
40	1.25%
45	0.25%
50	0.00%

**Rates of Disability.** These assumptions represent the probabilities of active members becoming disabled. It was assumed that 55% of disabilities would be duty related. (Adopted 2/12/08)

Sample Ages	% of Active Members Becoming Disabled within Next Year	
	Male	Female
30	0.062%	0.134%
35	0.312%	0.672%
40	0.416%	0.896%
45	0.437%	0.941%
50	0.759%	1.635%
55	1.456%	3.136%
60	2.579%	5.555%

## Summary of Actuarial Assumptions and Methods (Continued)

**Rates of Retirement.** These rates are used to measure the probabilities of an eligible member retiring during the next year. Deferred members are assumed to retire at age 55 for Tier 1 and age 60 for Tier 2. (Adopted 7/9/13)

Active Members Retiring Within Next Year	
Years of Service	Percent Retiring
25	25%
26	25%
27	20%
28	20%
29	20%
30	15%
31	15%
32	35%
33	30%
34	30%
35	100%

**Pay increase assumptions** for individual active members are shown below. (Adopted 7/9/13)

Years of Service	Annual Rate of Pay Increase for Sample Years of Service		
	General Wage Growth	Merit and Longevity	Total
0	3.75%	5.00%	8.75%
1	3.75%	5.00%	8.75%
2	3.75%	5.00%	8.75%
3	3.75%	5.00%	8.75%
4	3.75%	5.00%	8.75%
5	3.75%	5.00%	8.75%
10	3.75%	2.00%	5.75%
15	3.75%	0.00%	3.75%
20	3.75%	0.00%	3.75%

## Schedule of Active Member Valuation Data

Ten Years Ended April 30, 2017

Valuation April 30	Active Members	Annual Payroll	Annual Average Pay	% Increase in Average Pay
2008	1,433	\$81,825,577	\$57,101	5.4%
2009	1,410	84,741,206	60,100	5.3%
2010	1,418	85,500,737	60,297	0.3%
2011	1,391	86,762,488	62,374	3.4%
2012	1,366	83,143,924	60,867	(2.4%)
2013	1,359	85,903,657	63,211	3.9%
2014	1,408	91,050,890	64,667	2.3%
2015	1,397	91,864,876	65,759	1.7%
2016	1,334	90,909,410	68,148	3.6%
2017	1,286	88,683,426	68,961	1.2%

## Schedule of Retirants and Beneficiaries Added to and Removed from Rolls

Ten Years Ended April 30, 2017

Year Ended April 30	Added to Rolls		Removed from Rolls		Rolls End of Year		% Increase in Annual Benefits	Average Annual Benefits
	Number	Annual Benefits	Number	Annual Benefits	Number	Annual Benefits		
2008	45	\$1,259,038	46	\$803,604	1188	\$37,132,056	3.5	\$31,256
2009	26	926,993	28	523,897	1186	38,357,598	3.3	32,342
2010	38	1,426,523	23	533,519	1201	39,272,337	2.4	32,700
2011	33	1,175,093	32	699,395	1202	40,616,220	3.4	33,791
2012	43	1,782,017	36	974,256	1209	42,319,944	4.2	35,004
2013	57	2,427,998	26	638,909	1240	45,035,688	6.4	36,319
2014	45	1,921,853	42	1,120,677	1243	46,645,440	3.6	37,527
2015	48	1,976,226	39	914,248	1252	48,530,088	4.0	38,762
2016	63	2,863,595	41	1,160,134	1274	50,918,292	4.9	39,967
2017	76	3,689,966	42	1,423,134	1308	54,078,840	6.2	41,345

Benefit amounts do not include \$420 supplemental benefit.



## Short-Term Solvency Test

Valuation Date April 30	ENTRY AGE ACTUARIAL ACCRUED LIABILITIES				Portion of Actuarial Accrued Liabilities Covered by Reported Assets		
	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Members (Financed Portion)	Valuation Assets	(1)	(2)	(3)
	2008	\$70,012,081	\$511,571,757	\$269,179,907	\$742,060,223	100%	100%
2009	76,321,890	521,607,916	295,629,284	641,176,940	100	100	15
2010	81,310,956	526,521,860	307,630,221	722,464,003	100	100	37
2011	86,306,128	537,670,377	316,632,587	715,764,084	100	100	29
2012	91,427,576	551,677,775	329,022,523	734,375,923	100	100	28
2013	93,709,417	554,078,691	316,514,107	749,617,334	100	100	32
2014	100,221,012	568,199,815	337,822,316	773,338,034	100	100	31
2015	106,540,143	585,754,594	344,962,180	803,672,621	100	100	32
2016	109,073,053	613,092,387	354,658,781	821,895,127	100	100	28
2017	111,119,569	652,700,808	355,127,688	853,286,442	100	100	25

Note: For years prior to 2011, information is shown from a prior actuary's report.

## Analysis of Financial Experience

### Year Ended April 30, 2017

The actuarial gains or losses realized in the operation of the Retirement System provide an experience test. Actual experience will never (except by coincidence) coincide exactly with assumed experience. It is expected that gains and losses will cancel each other over a period of years, but sizable year-to-year fluctuations are common. Detail on the derivation of the actuarial gain (loss) is shown below.

	\$ Millions
Unfunded Actuarial Accrued Liability, April 30, 2016	\$254.9
- effect of contributions less than actuarial rate	0.0
- expected change due to amortization method	6.1
- loss from investment return on actuarial assets	11.5
- demographic experience <sup>1</sup>	(4.1)
- all other experience	(2.7)
Unfunded Actuarial Accrued Liability, April 30, 2017	\$265.7

<sup>1</sup> Liability gain is about 0.37% of total actuarial liability

## Schedule of Funding Progress

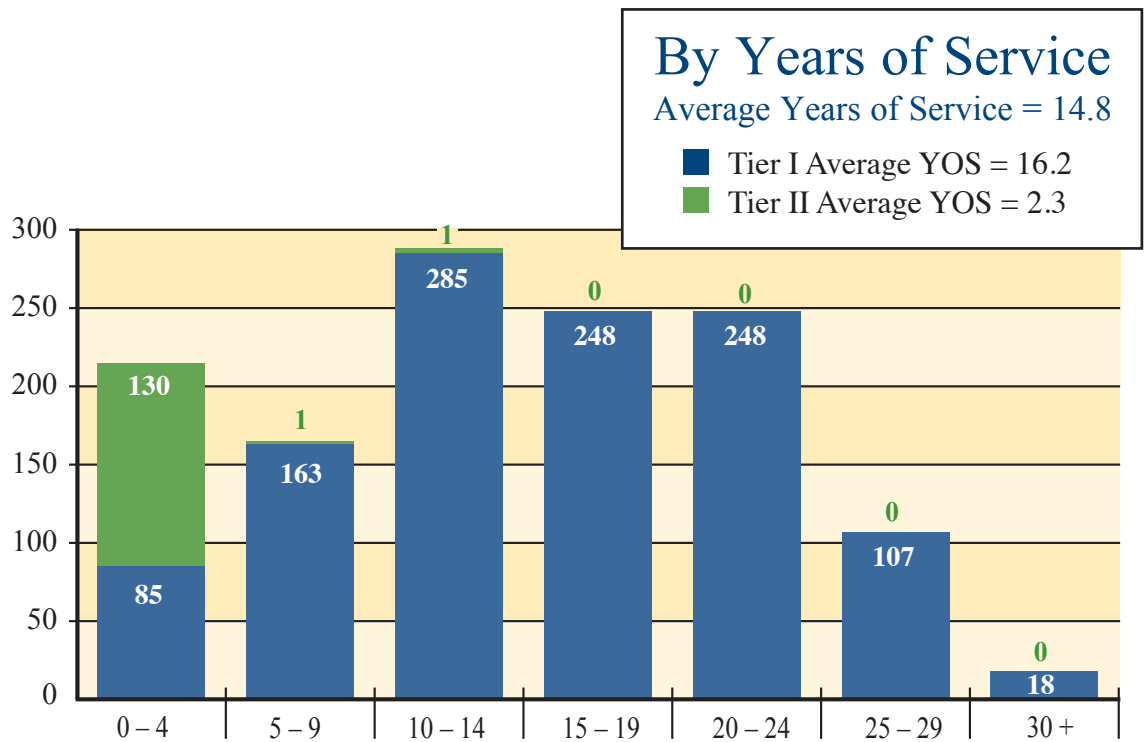
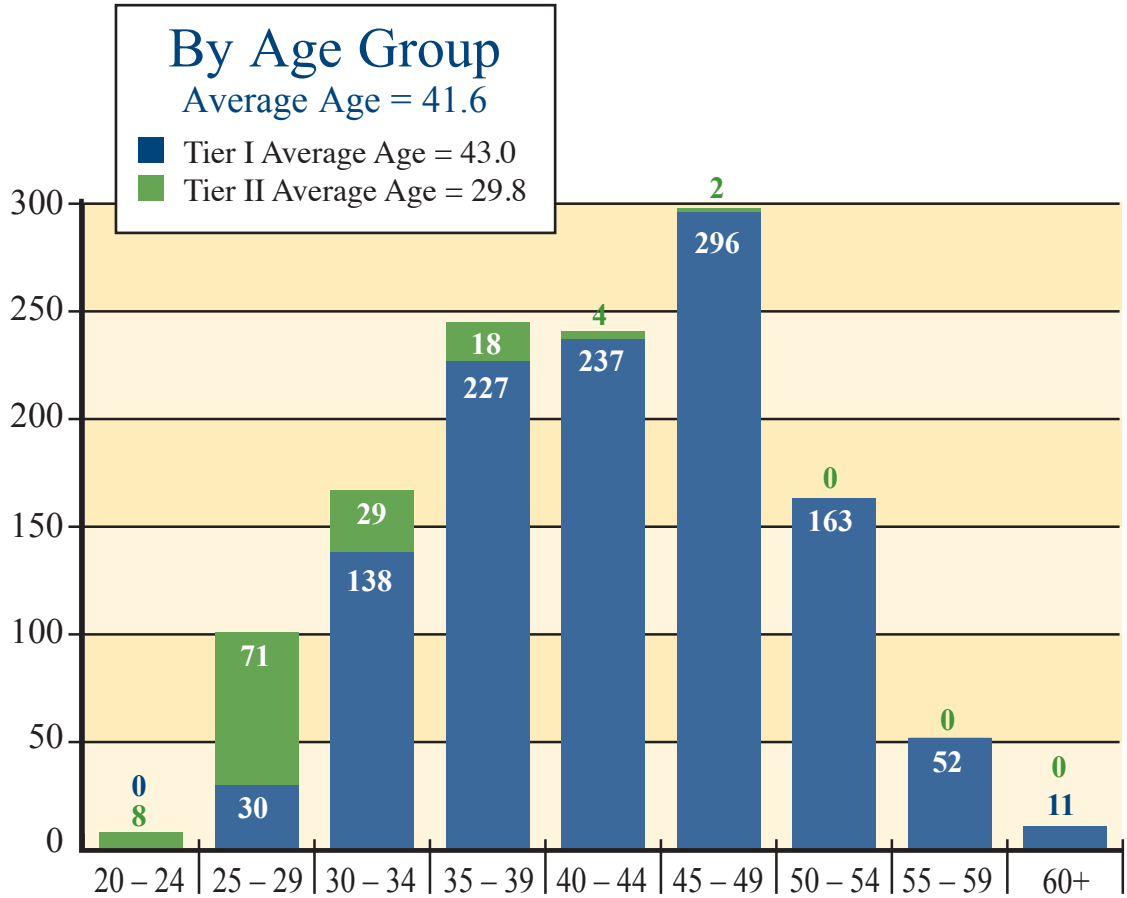
Actuarial Valuation Date	(a) Actuarial Value of Assets	(b) Actuarial Accrued Liability (AAL) Entry Age	(b-a) Unfunded AAL (UAAL)	(a/b) Funded Ratio	(c) Active Member Covered Payroll	[(b-a)/c] UAAL as a Percentage of Covered Payroll
4/30/08	\$742,060,223	\$850,763,745	\$108,703,522	87%	\$86,700,836	125%
4/30/09	641,176,940	893,559,090	252,382,150	72%	89,884,411	281%
4/30/10	722,464,003	915,463,037	192,999,034	79%	90,475,241	213%
4/30/11	715,764,084	940,609,092	224,845,008	76%	88,444,971	254%
4/30/12	734,375,923	972,127,874	237,751,951	76%	87,880,774	271%
4/30/13	749,617,334	964,302,215	214,684,881	78%	90,708,350	237%
4/30/14	773,338,034	1,006,243,143	232,905,109	77%	96,150,178	242%
4/30/15	803,672,621	1,037,256,917	233,584,296	77%	97,103,400	241%
4/30/16	821,895,127	1,076,824,221	254,929,094	76%	96,005,062	266%
4/30/17	853,286,442	1,118,948,065	265,661,623	76%	93,410,606	284%

## Schedule of Computed and Actual City Contributions\*

Year Ended April 30	Actuarial Determined Contributions	Actual Contributions
2008	\$22,749,385	\$15,747,111
2009	24,311,281	16,700,688
2010	23,642,278	16,645,229
2011	34,363,170	16,532,015
2012	31,756,810	16,476,608
2013	33,840,461	16,933,694
2014	35,507,348	20,528,569
2015	25,739,061	25,739,061
2016	27,263,263	27,263,263
2017	27,916,378	27,916,378

\* Does not include \$200 per eligible member supplemental contributions.

# Active Membership



# Summary Plan Description at April 30, 2017

## Membership

All police officers who serve as law enforcement officers for compensation shall become members of the Police Retirement System of Kansas City, Missouri as a condition of their employment. Members do not include police commissioners, reserve officers, or civilian employees.

Tier I members include employees hired before August 28, 2013.

Tier II members include employees hired on or after August 28, 2013.

Any Tier I member who terminates their membership and later returns to membership on or after August 28, 2013 will become a Tier II member.

## Creditable Service

Membership service includes all service rendered as a police officer for compensation. Creditable service includes current membership service and may also include purchases of prior service, military service, and other qualifying public service.

### Service Interruptions

With certain exceptions, any time a member is on leave without compensation, the member will not receive creditable service in the Retirement System for such period of time. However, upon returning from unpaid leave to active service, the member may purchase creditable service for such time by paying the actuarial cost calculated at the time of the purchase. Under certain conditions, members who have been on a period of unpaid leave for military purposes may receive creditable

service without being required to pay the actuarial cost. Creditable service does not include any time a member is suspended from service without pay.

### Prior Service

A member who terminates membership with five years or more of creditable service and later returns to membership may purchase credit toward retirement for that prior service. The cost shall be determined using the member's portion of actuarial rates.

### Prior Military Service

Members may elect to purchase creditable service in the Retirement System based upon any active duty time they served in the U.S. military prior to employment with the Kansas City, Missouri Police Department. A member may purchase up to two years of qualifying military service. The cost shall be determined at the time of purchase using current actuarial rates, and must be paid in full prior to retirement.

### Other Public Employment

Under Section 105.691 RSMo. a member who has been employed in nonfederal public employment in the State of Missouri prior to becoming a member of the Police Retirement System may purchase service up to the actual number of years of public service in an eligible position. A member becomes eligible under this section after they have been a member of the Police Retirement System for five years. The cost shall be determined using actuarial rates.

## Contributions

All members contribute a percentage of their base pay until they retire or have completed 32 years of creditable service. The member contribution rate is 11.55% of base pay. Member contributions are made through payroll deduction on a pre-tax basis and paid into the Retirement System by the Board of Police Commissioners each pay period.

As of May 1, 2016, the City of Kansas City, Missouri will contribute the actuarial required amount of \$27.9 million based on a projected payroll of \$100.7 million using a contribution rate of 27.71% of members' base pay. Future contribution rates will be based on actuarial requirements. The City of Kansas City, Missouri also contributes \$200 per month for each person receiving the Supplemental Retirement Benefit.

## Retirement Benefits

A Tier I member is eligible to retire after completing 25 or more years of creditable service.

A Tier II member is eligible to retire after completing 27 or more years of creditable service.

Members can continue to accrue creditable service until they reach 32 years. Members with 32 years of creditable service in the Retirement System may remain in active service with the Police Department until they reach a total of 35 years of service. Members must retire at age 65.

Pension benefits begin in the month following the member's effective retirement date.

## Age and Service Retirement

Upon retirement, a Tier I member with at least 25 years of creditable service or who is age 60 with at least 10 years of creditable service, or a Tier II member with at least 27 years of creditable service or who is age 60 with at least 15 years of creditable service shall receive an annual pension calculated as follows:

For a member retiring on or after August 28, 2013, the annual benefit is calculated by multiplying 2.5% of the member's Final Compensation by the number of years of total creditable service. The pension benefit may not exceed 80% of the member's Final Compensation.

For a member retiring on or after August 28, 2000 and before August 28, 2013, the annual benefit is calculated by multiplying 2.5% of the member's Final Compensation by the number of years of total creditable service. The pension benefit may not exceed 75% of the member's Final Compensation.

For a member retiring before August 28, 2000, the annual benefit was calculated by multiplying 2.0% of the member's Final Compensation by the number of years of total creditable service. The pension benefit may not exceed 60% of the member's Final Compensation.

Final Compensation of a Tier I member is generally the member's average annual compensation over the 24 months of service for which the member received the highest base salary.

Final Compensation of a Tier II member is generally the member's average annual compensation over the 36 months of service for which the member received the highest base salary.

A Tier II member who is married at the time of retirement may, with their spouse's consent, select an optional annuity in lieu of a normal pension. The optional annuity provides a monthly pension to the member for life and, upon the death of the member, provides an amount to the surviving spouse that is either equal to the amount the member was receiving or 75% of the amount the member was receiving at the time of death. The value of the optional annuity will be the actuarial equivalent of the member's normal pension amount at the date of retirement, including the value of survivorship rights for the surviving spouse. The optional annuity will be paid to the member's surviving spouse for life without regard to remarriage.

### **Minimum Pension Benefit**

Any member who retired entitled to a pension benefit and who either has at least 25 years of creditable service or is retired as a result of an injury or illness, shall receive a minimum monthly benefit of not less than \$600 in combined pension benefit and cost-of-living adjustments. A surviving spouse qualifies for the minimum monthly benefit if the officer had at least 25 years of creditable service, died in service, or was retired as a result of an injury or illness. The minimum monthly pension benefit is in addition to the Supplemental Retirement Benefit.

### **Disability Benefits**

A member eligible for disability benefits must be in active service and have a permanent disability that prevents the member from performing the full and unrestricted duties of a police officer. A duty disability is the exclusive result of an accident occurring within the actual performance of duty or through an occupational disease arising out of and in the course of employment. A non-duty disability is the result of an injury or illness not exclusively caused by the actual performance of official duties or the member's own negligence.

A member eligible for a duty disability pension, as certified by the Medical Board of the Retirement System to the Board of Police Commissioners shall have no age or service requirement. Duty disability pensions are calculated as follows and shall be paid for as long as the permanent disability shall continue:

A member retiring on or after August 28, 2013 will receive a pension equal to 80% of the member's Final Compensation.

A member retiring on or after August 28, 2001 and before August 28, 2013 will receive a pension equal to 75% of the member's Final Compensation.

A member retiring before August 28, 2001 will receive a pension equal to 60% of the member's Final Compensation.

The pension may be subject to offset or reduction by amounts paid or payable under any Workers' Compensation law.

A member eligible for a non-duty disability pension, as certified by the Medical Board of the Retirement System to the Board of Police Commissioners, must have 10 or more years of creditable service and will receive a pension equal to 2.5% of the member's Final Compensation multiplied by the number of years of the member's creditable service for so long as the permanent disability shall continue.

Any disability retiree who is not age 60 may be required by the Retirement Board to undergo periodic medical examinations.

### **Partial Lump-sum Option Payment (PLOP)**

A Partial Lump-sum Option Payment (PLOP) is available to members who have one or more years of creditable service beyond their eligible retirement date. A member with one or more years of creditable service beyond their eligible retirement date may elect a lump-sum equal to 12 times the initial monthly base pension they would have received without making the PLOP election.



A member with two or more years of creditable service beyond their eligible retirement date may elect a lump-sum equal to 24 times the initial monthly base pension they would have received without making the PLOP election.

A member with three or more years of creditable service beyond their eligible retirement date may elect a lump-sum equal to 36 times the initial monthly base pension they would have received without making the PLOP election.

When a member makes an election to receive a PLOP, the member's base pension calculated at the time of retirement will be actuarially reduced to reflect the PLOP payment. The reduction in a member's retirement benefit with a PLOP is dependent upon the member's age, marital status and the amount of the PLOP.

#### **Survivor Benefits**

Upon the death of a member in service or of a member after retirement, there shall be paid the following:

If a member dies while in service, the surviving spouse shall be paid a base annual pension equal to 40% of the Final Compensation of the member.

If a Tier I member dies after commencement of pension benefits, and after August 28, 1999, the member's surviving spouse shall be paid a pension and/or special consultant supplement in an amount equal to 80% of the pension being received by the member, including cost of living adjustments, at the time of the member's death.

If a Tier II member retired and did not elect an optional spousal annuity in lieu of a normal pension, the surviving spouse shall receive a pension payable for life equaling 50% of the member's benefit as of the member's retirement date, plus cost of living adjustments.

If a Tier II member retired and elected an optional spousal annuity, the surviving spouse shall receive (depending on the member's election) either the same amount as the member was receiving at the time of death or 75% of the amount the member was receiving at the time of death and will be paid such amount for the lifetime of such surviving spouse.

The benefit amounts calculated above are in addition to the Supplemental Retirement Benefit.

A member's child or children under the age of 18, at the time of the member's death, shall be paid \$50.00 per month each. Each child who is a full-time student may continue to receive payments until they reach the age of 21. Any child who is physically or mentally incapacitated from earning wages shall be entitled to the same benefits as a child under the age of 18.

A funeral benefit of \$1,000.00.

If there is no qualified surviving spouse, or if the surviving spouse dies, the pension to which the surviving spouse would be entitled shall be payable to the qualified child or children of the deceased member in equal shares.

If there is no surviving spouse or children qualified to receive a pension, the remainder of the accumulated contributions of the deceased member, and any prorated benefit for the month of the member's death shall be paid to a named beneficiary.

For entitlement to benefits, the surviving spouse of a member who retired on or after August 28, 1997 must have been married to the member at the time of the member's retirement. The surviving spouse of a member who retired prior to August 28, 1997 must have been married to the member for at least two years prior to the member's retirement.

A surviving spouse applying for a pension must furnish a copy of their marriage certificate and the death certificate of the deceased member. Children applying for a pension must furnish a copy of the death certificate and a copy of their birth certificate.

Any prorated benefit for the month of a surviving spouse's death shall be paid to a named beneficiary.

When the surviving spouse or children receive Workers' Compensation benefits on account of the death of a member in service, the amounts of any payments under this section may be subject to offset or reduction by amounts paid or payable under any Workers' Compensation law.

### **Cost of Living Adjustments**

Members, including surviving spouses, may receive an annual cost of living adjustment in an amount not to exceed 3% of their respective base pension. Statutes require that the Retirement System remain actuarially sound and that the Retirement Board must act upon the advice of a qualified actuary when granting cost of living adjustments. A Tier I member is eligible for the cost of living increase if they were retired by December 31 of the prior year. With certain exceptions, a Tier II member becomes eligible for the cost of living increase in the year following the year in which they would have attained 32 years of creditable service. The annual cost of living increase is normally granted on the May 31 retirement check.

### **Supplemental Retirement Benefit**

All retired Tier I members and eligible surviving spouses receive a supplemental retirement benefit, currently in the amount of \$420.00 monthly, in addition to pension benefits. All retired Tier II members and eligible surviving spouses are eligible to receive a supplemental retirement benefit, currently in the amount of \$200.00 monthly, in addition to pension benefits. No supplemental benefit will be paid in any

month when only a partial monthly pension payment is made due to the death of a member or survivor.

### **Resignation or Termination**

Upon resignation or termination of a member, with less than 15 years of creditable service, the member will be paid the amount of the member's contributions and this return of contributions shall be in lieu of any and all benefits to which the member might be entitled. The member will receive their accumulated contributions in one lump sum payment without interest.

With 15 or more years of creditable service, a member may elect to leave their contributions in the Retirement System and will become entitled to future lifetime benefits upon meeting the eligibility requirements. A Tier I member becomes entitled to a pension beginning at age 55. A Tier II member becomes entitled to a pension beginning at age 60.

Any member who receives a refund of their member contributions, thereby terminating their membership in the Retirement System, and who later returns to membership on or after August 28, 2013 due to re-employment will become a Tier II member.

## **Service Connected Death Benefit**

Upon receipt of the proper proofs that the death of a member in service was the natural result of an event occurring within the performance of duty or of an occupational disease arising out of and in the course of the member's employment, there shall be paid to the member's eligible surviving spouse, or eligible child or children, the sum of \$50,000. Eligible children are children under the age of 21 or over the age of 21 if mentally or physically incapacitated from wage earning. Amounts payable under this section shall not be subject to offset or reduction by amounts paid or payable under Workers' Compensation.



## Retirement Board

The Retirement Board is composed of nine members, two are appointed by the Board of Police Commissioners, two are appointed by the City Council and five are elected by the membership of the Retirement Systems. The elected members must include one member of the Civilian Employees' Retirement System, one member retired from active service in the Police Retirement System, and one active member of the Police Retirement System who has not attained the rank of Sergeant or higher. Elections are held annually and board members are elected to serve for three-year terms.

The above summary is not intended to serve as a legal document or substitute for the law. In all circumstances the language of the actual text of the law and the policies adopted by the Retirement System Board will take precedence. Copies of sections 86.900 to 86.1280 of the Revised Statutes of Missouri, which govern the Police Retirement System of Kansas City, Missouri, are available on our web site at [www.kcpers.org](http://www.kcpers.org) or upon request at the KCPERS Office.



# Statistical Section

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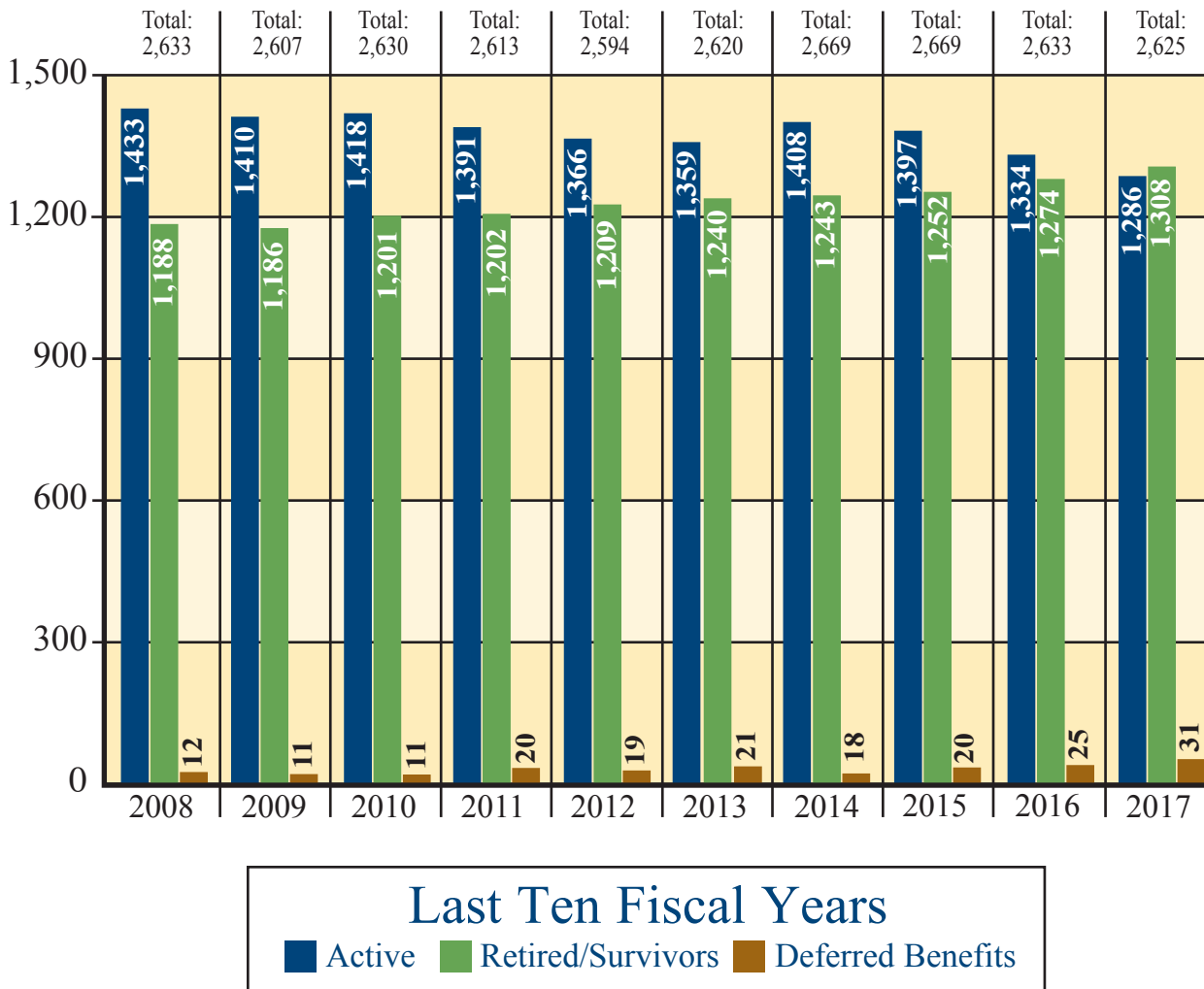
# Statistical Summary

The Police Retirement System of Kansas City, Missouri has implemented the provisions of GASB Statement No. 44, Economic Condition Reporting: The Statistical Section. GASB Statement No. 44 established reporting requirements related to the supplementary information presented in this section.

Each of the schedules in the statistical section contain ten years of historical data to provide more comprehensive comparisons and track the progress of changes to member demographics and plan benefits.

All of the member demographic and benefit data used in the statistical section was obtained from internal sources. Participant data is separated into active, retired/survivor, and deferred categories where appropriate. Retirement benefit data is separated into service retirement, duty disability retirement, and non-duty disability retirement categories where appropriate.

## Membership in Retirement Plan



# Schedule of Changes in Plan Net Position

Last Ten Fiscal Years

Fiscal Year	2008	2009	2010	2011	2012
<b>Additions:</b>					
Member Contributions	\$8,459,762	\$8,982,366	\$8,934,700	\$9,223,994	\$8,894,208
City Contributions	15,747,111	16,700,688	16,645,229	16,532,015	16,476,608
Net Investment Income	(911,856)	(180,354,444)	142,765,846	82,002,086	(3,584,270)
<b>Total Additions to Plan Net Position</b>	<b>23,295,017</b>	<b>(154,671,390)</b>	<b>168,345,775</b>	<b>107,758,095</b>	<b>21,786,546</b>
<b>Deductions:</b>					
Benefits	42,802,584	44,097,817	46,290,964	46,377,135	48,578,196
Refunds	621,174	746,454	231,947	557,214	549,026
Administrative	598,548	550,069	565,362	631,281	552,751
<b>Total Deductions from Plan Net Position</b>	<b>44,022,306</b>	<b>45,394,340</b>	<b>47,088,273</b>	<b>47,565,630</b>	<b>49,679,973</b>
<b>Change in Net Position</b>	<b>(\$20,727,289)</b>	<b>(\$200,065,730)</b>	<b>\$121,257,502</b>	<b>\$60,192,465</b>	<b>(\$27,893,427)</b>

Fiscal Year	2013	2014	2015	2016	2017
<b>Additions:</b>					
Member Contributions	\$9,343,416	\$10,198,831	\$10,874,921	\$10,748,236	\$11,751,066
City Contributions	16,933,694	22,241,769	28,933,261	30,272,063	30,979,978
Net Investment Income	55,542,099	66,842,964	46,951,094	(2,959,229)	72,631,413
<b>Total Additions to Plan Net Position</b>	<b>81,819,209</b>	<b>99,283,564</b>	<b>86,759,276</b>	<b>38,061,070</b>	<b>115,362,457</b>
<b>Deductions:</b>					
Benefits	50,979,009	52,627,501	55,006,617	57,970,768	59,554,625
Refunds	816,459	361,910	399,052	617,993	609,139
Administrative	576,470	535,628	549,742	561,591	642,688
<b>Total Deductions from Plan Net Position</b>	<b>52,371,938</b>	<b>53,525,039</b>	<b>55,955,411</b>	<b>59,150,352</b>	<b>60,806,452</b>
<b>Change in Net Position</b>	<b>\$29,447,271</b>	<b>\$45,758,525</b>	<b>\$30,803,865</b>	<b>\$(21,089,282)</b>	<b>\$54,556,005</b>

# Schedule of Deductions from Plan Net Position for Benefits and Refunds by Type\*

Last Ten Fiscal Years

Fiscal Year	2008	2009	2010	2011	2012
<b>Type of Benefit:</b>					
Retired	\$31,212,247	\$31,911,809	\$33,368,992	\$33,964,741	\$34,794,455
Survivors	4,943,672	5,233,830	5,384,022	5,513,933	5,936,074
Disabilities	5,827,078	5,978,251	6,065,418	5,983,509	6,124,737
PLOP	790,587	957,927	1,455,532	889,952	1,697,930
Death Benefits	29,000	16,000	17,000	25,000	25,000
<b>Total Benefits</b>	<b>\$42,802,584</b>	<b>\$44,097,817</b>	<b>\$46,290,964</b>	<b>\$46,377,135</b>	<b>\$48,578,196</b>
<b>Type of Refund:</b>					
Separation	\$621,174	\$746,454	\$231,947	\$557,214	\$441,701
Death	—	—	—	—	107,325
<b>Total Refunds</b>	<b>\$621,174</b>	<b>\$746,454</b>	<b>\$231,947</b>	<b>\$557,214</b>	<b>\$549,026</b>

Fiscal Year	2013	2014	2015	2016	2017
<b>Type of Benefit:</b>					
Retired	\$36,539,274	\$38,206,133	\$39,215,578	\$41,173,594	\$42,513,617
Survivors	6,106,116	6,513,492	6,802,463	7,049,068	7,526,323
Disabilities	6,345,482	6,829,946	7,272,582	7,658,207	8,242,415
PLOP	1,967,137	1,052,930	1,690,994	2,064,899	1,240,270
Death Benefits	21,000	25,000	25,000	25,000	32,000
<b>Total Benefits</b>	<b>\$50,979,009</b>	<b>\$52,627,501</b>	<b>\$55,006,617</b>	<b>\$57,970,768</b>	<b>\$59,554,625</b>
<b>Type of Refund:</b>					
Separation	\$682,890	\$361,910	\$399,052	\$617,993	\$609,139
Death	133,569	—	—	—	—
<b>Total Refunds</b>	<b>\$816,459</b>	<b>\$361,910</b>	<b>\$399,052</b>	<b>\$617,993</b>	<b>\$609,139</b>

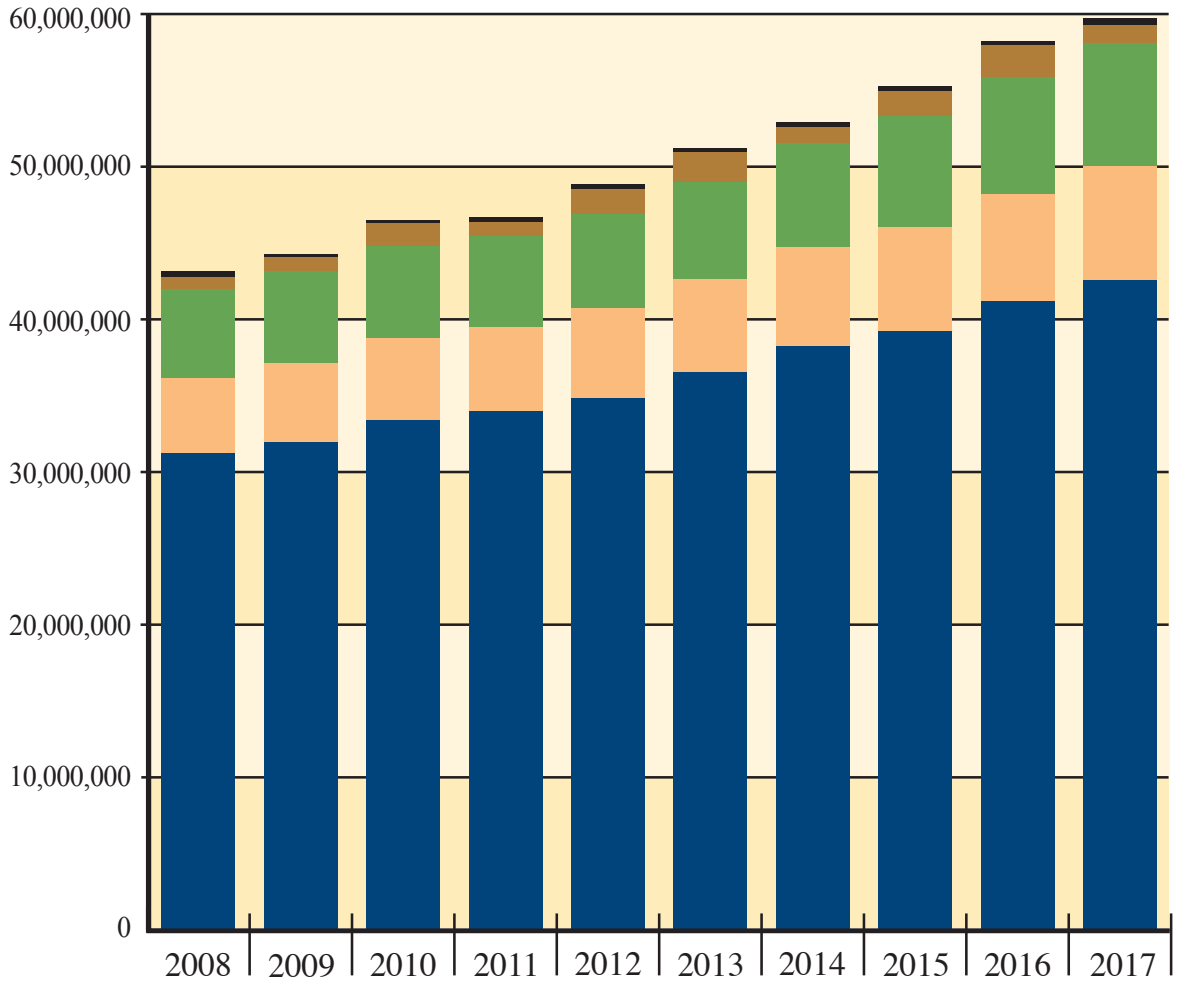
\*Benefit amounts include \$420 supplemental benefit for eligible members

\*Benefit amounts include cost of living adjustments

# Schedule of Deductions from Plan Net Assets for Benefits and Refunds by Type\* (Continued)

Last Ten Fiscal Years

■ Retired   
 ■ Survivors   
 ■ Disabilities   
 ■ PLOP   
 ■ Death Benefits



\*Benefit amounts include \$420 supplemental benefit for eligible members

\*Benefit amounts include cost of living adjustments

# Schedule of Retired Members by Type of Benefit

April 30, 2017

Amount of Monthly Benefit*	Total Monthly Benefits*	Total Number of Recipients	Type of Benefit				
			Retired	Surviving Spouses	Surviving Children	Duty Disability	Non-Duty Disability
\$1 to 500	\$300	6			6		
501 to 1,000	3,921	5	1	3	1		
1,001 to 1,500	38,656	32	6	22	1	1	2
1,501 to 2,000	97,509	55	9	32	2	8	4
2,001 to 2,500	190,927	84	16	56		6	6
2,501 to 3,000	384,369	139	53	58	2	14	12
3,001 to 3,500	522,279	159	104	35		12	8
3,501 to 4,000	805,522	217	156	26		24	11
4,001 to 4,500	984,001	232	204	6		16	6
4,501 to 5,000	843,369	177	159	4		13	1
5,001 to 5,500	473,419	91	55	1		33	2
5,501 to 6,000	263,173	46	38	1		7	
6,001 to 6,500	192,876	31	26	1		4	
6,501 to 7,000	113,676	17	17				
Over 7,000	136,902	17	17				
<b>Totals</b>	<b>\$5,050,899</b>	<b>1,308</b>	<b>861</b>	<b>245</b>	<b>12</b>	<b>138</b>	<b>52</b>

\*Benefit amounts include \$420 supplemental benefit for eligible members

\*Benefit amounts include cost of living adjustments



# Schedule of Average Monthly Base Benefit Amounts\*

Ten Years Ended April 30, 2017

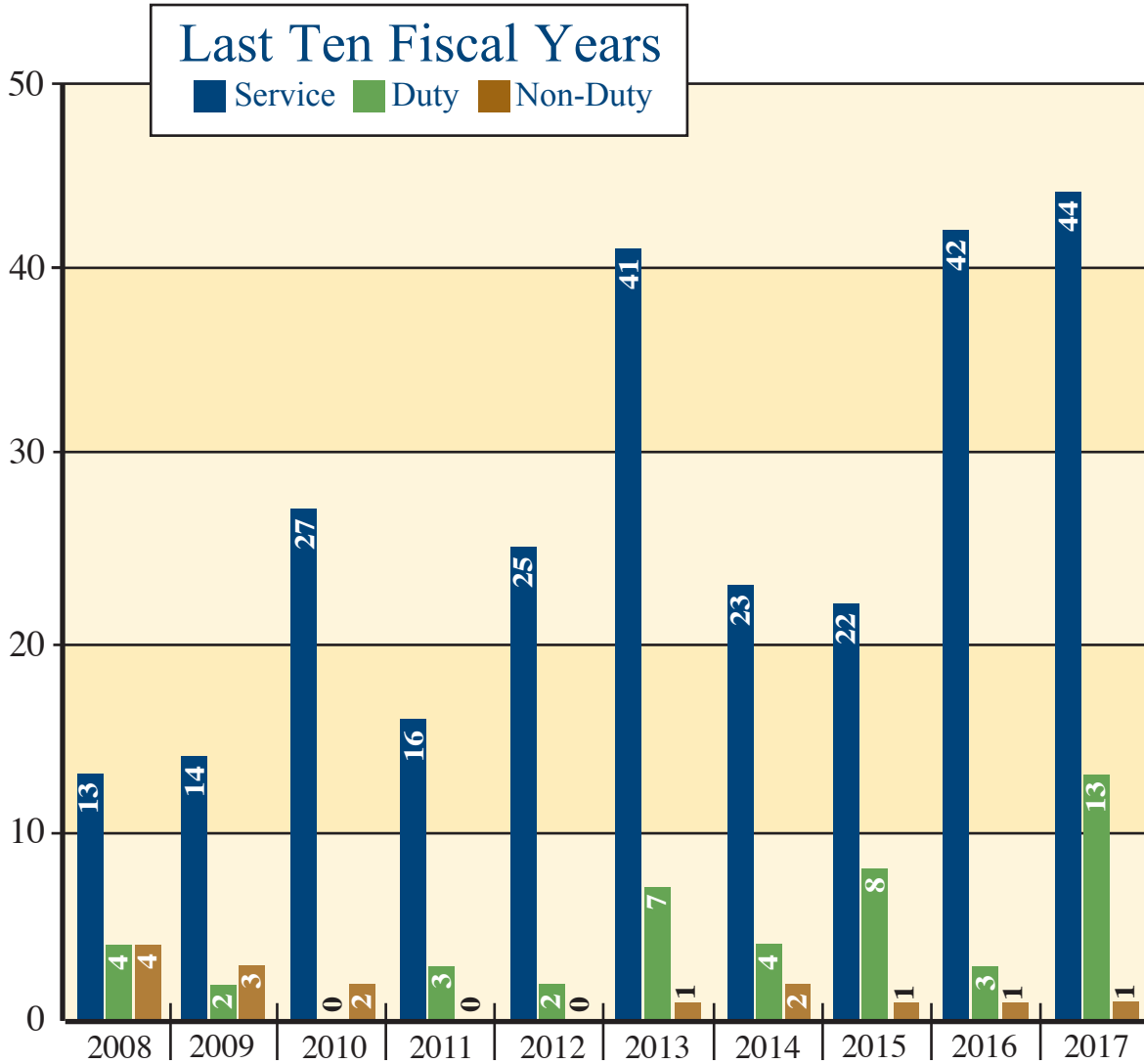
## Years Credited Service

Members Retiring During	<25	25-26	26-27	27-28	28-29	29-30	30+	All Members
<b>Fiscal Year Ending 04/30/08</b>								
Average monthly benefit	\$2,553	3,405		3,876	2,778	3,814		3,206
Average final compensation	\$4,584	5,360		6,084	4,922	5,778		5,243
Number of retirees	7	5		3	2	4		21
<b>Fiscal Year Ending 04/30/09</b>								
Average monthly benefit	\$2,646	3,537		5,550	2,965	3,827		3,345
Average final compensation	\$5,163	5,644		8,048	5,152	5,932		5,648
Number of retirees	8	2		1	1	7		19
<b>Fiscal Year Ending 04/30/10</b>								
Average monthly benefit	\$2,474	3,580	3,705	4,230	3,006	4,297		3,616
Average final compensation	\$5,394	5,691	5,885	6,546	5,276	6,605		6,022
Number of retirees	7	6	2	3	1	10		29
<b>Fiscal Year Ending 04/30/11</b>								
Average monthly benefit	\$3,553	3,469	4,271	3,996	4,340	4,190		3,912
Average final compensation	\$4,978	5,428	6,829	5,950	6,847	6,502		5,985
Number of retirees	4	4	3	2	2	4		19
<b>Fiscal Year Ending 04/30/12</b>								
Average monthly benefit	\$4,087	3,711	3,668	3,341	4,114	4,796		4,021
Average final compensation	\$5,449	5,893	5,697	5,601	6,735	7,437		6,308
Number of retirees	2	8	4	2	5	6		27
<b>Fiscal Year Ending 04/30/13</b>								
Average monthly benefit	\$3,076	3,659	4,004	3,977	3,536	4,463		3,693
Average final compensation	\$5,242	5,809	6,038	6,266	5,801	7,101		5,929
Number of retirees	12	14	6	5	5	7		49
<b>Fiscal Year Ending 04/30/14</b>								
Average monthly benefit	\$3,746	4,084	3,845		4,032	3,449	4,609	4,079
Average final compensation	\$5,747	6,469	5,931		5,692	5,656	7,037	6,298
Number of retirees	8	7	4		1	1	8	29
<b>Fiscal Year Ending 04/30/15</b>								
Average monthly benefit	\$4,477	3,709	4,079	3,938	3,412	4,378	4,647	4,096
Average final compensation	\$5,760	5,892	6,316	6,626	6,063	5,901	7,222	6,120
Number of retirees	9	6	5	4	3	2	2	31
<b>Fiscal Year Ending 04/30/16</b>								
Average monthly benefit	\$3,315	4,481	3,815	4,209	4,109	4,776	4,780	4,288
Average final compensation	\$5,545	7,026	6,211	6,856	6,301	6,679	7,016	6,650
Number of retirees	6	12	3	7	5	3	10	46
<b>Fiscal Year Ending 04/30/17</b>								
Average monthly benefit	\$3,975	4,105	4,418	4,050	3,987	5,852	5,424	4,435
Average final compensation	\$5,557	6,349	6,717	5,900	6,272	7,980	7,274	6,414
Number of retirees	16	14	6	1	6	3	11	57

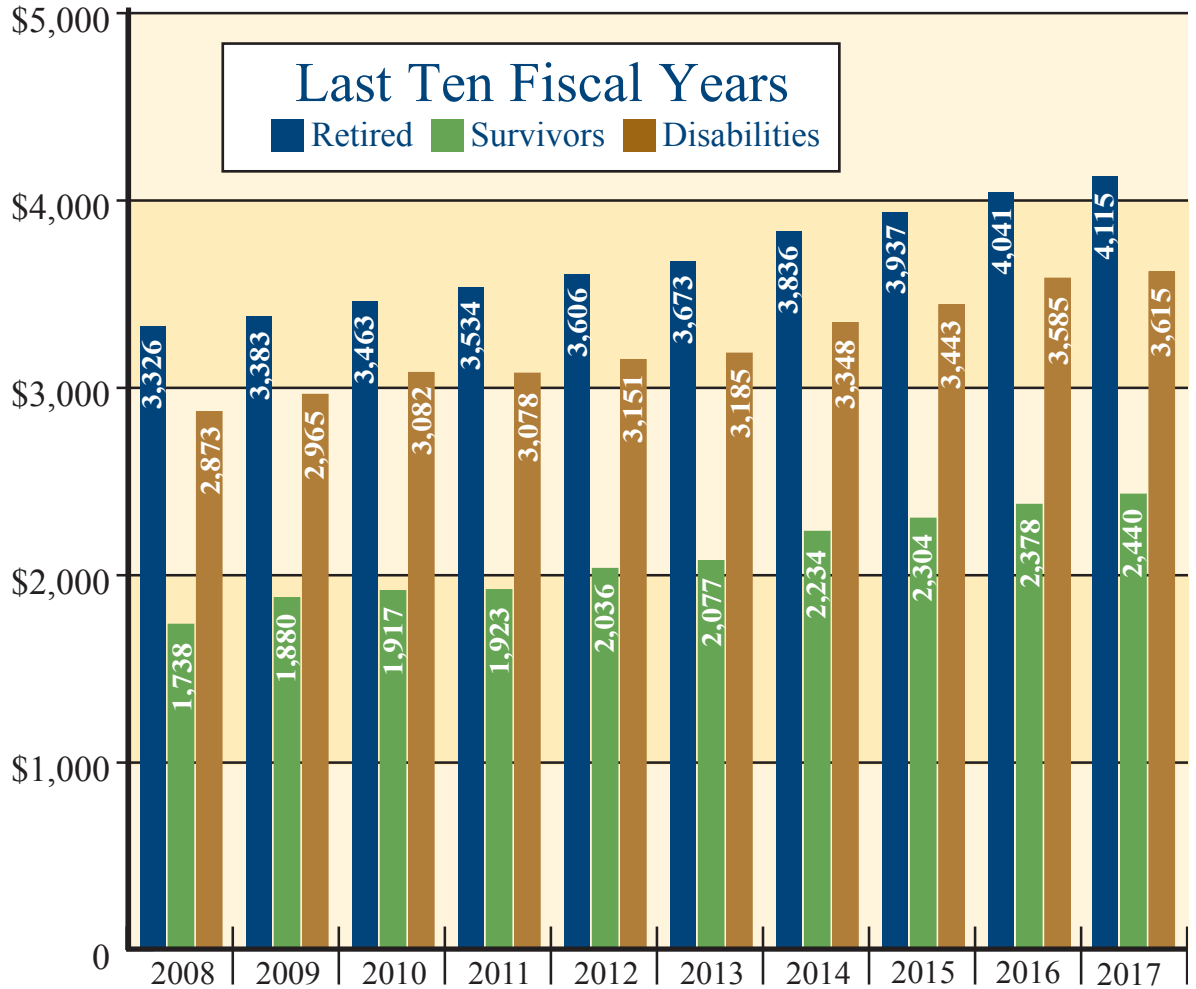
\*Benefit amounts do not include supplemental benefits or cost of living adjustments.

\*Benefit amounts are after reductions for optional benefits.

# New Pensions Started



# Average Monthly Benefit\*



\* Benefit amounts include \$420 supplemental benefit for eligible members

\* Benefit amounts include cost of living adjustments

## Cost of Living Increases

Ten Year History

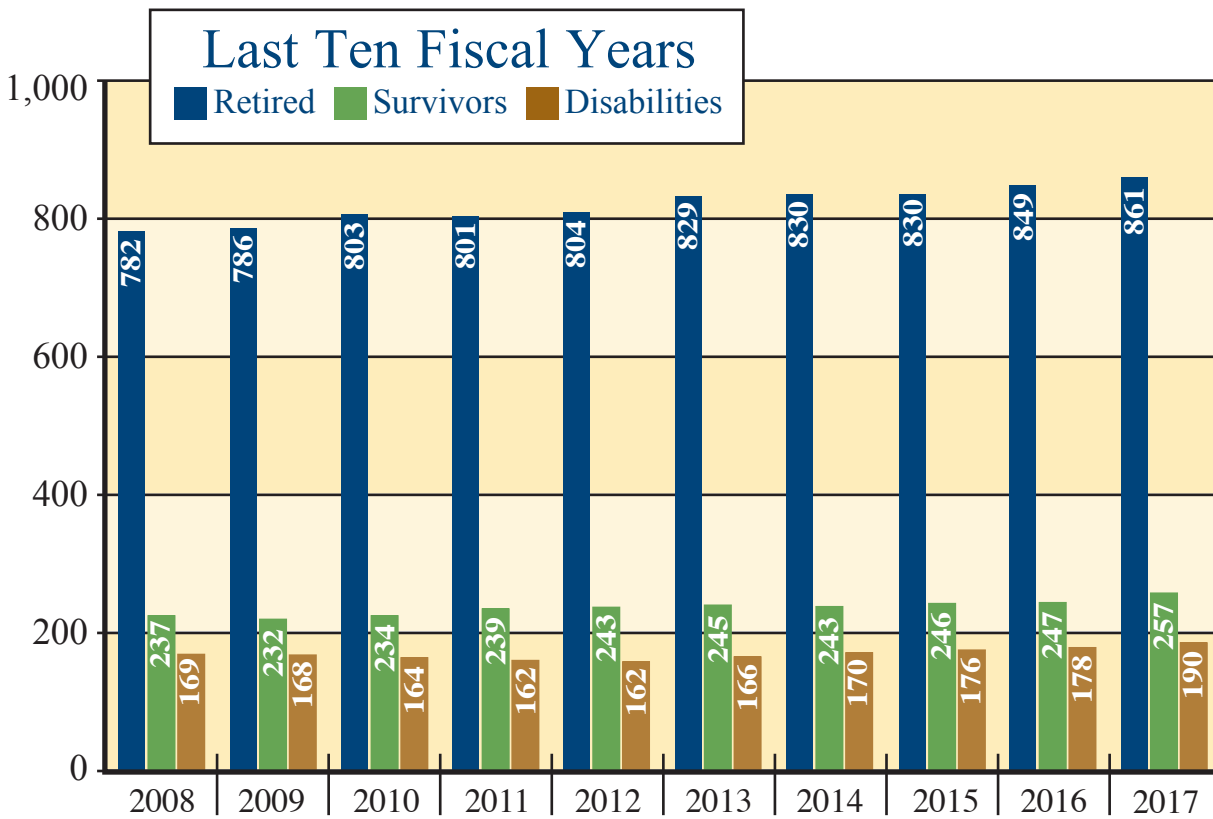
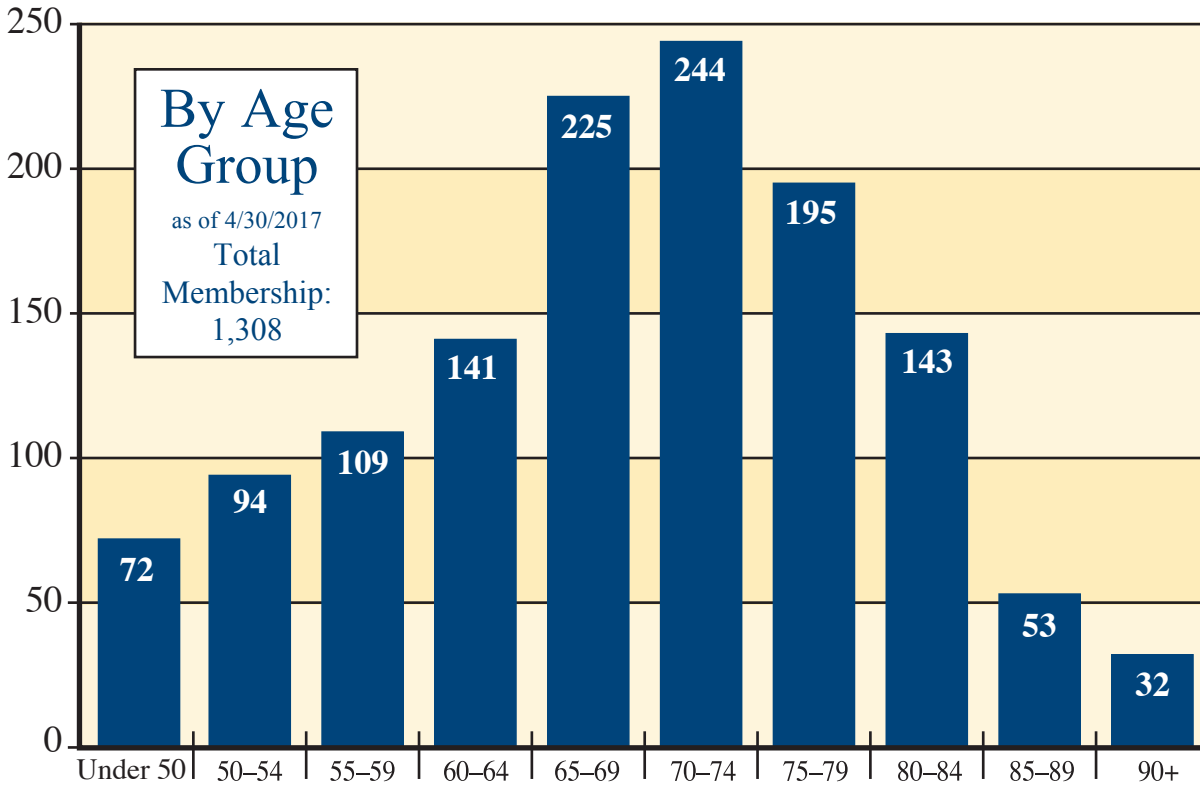
Fiscal Year	% Increase to Monthly Base Pension
2008	3.00%
2009	3.00%
2010	3.00%
2011	0.00%
2012	3.00%
2013	3.00%
2014	3.00%
2015	2.50%
2016	2.50%
2017	2.00%

## Supplemental Retirement Benefit

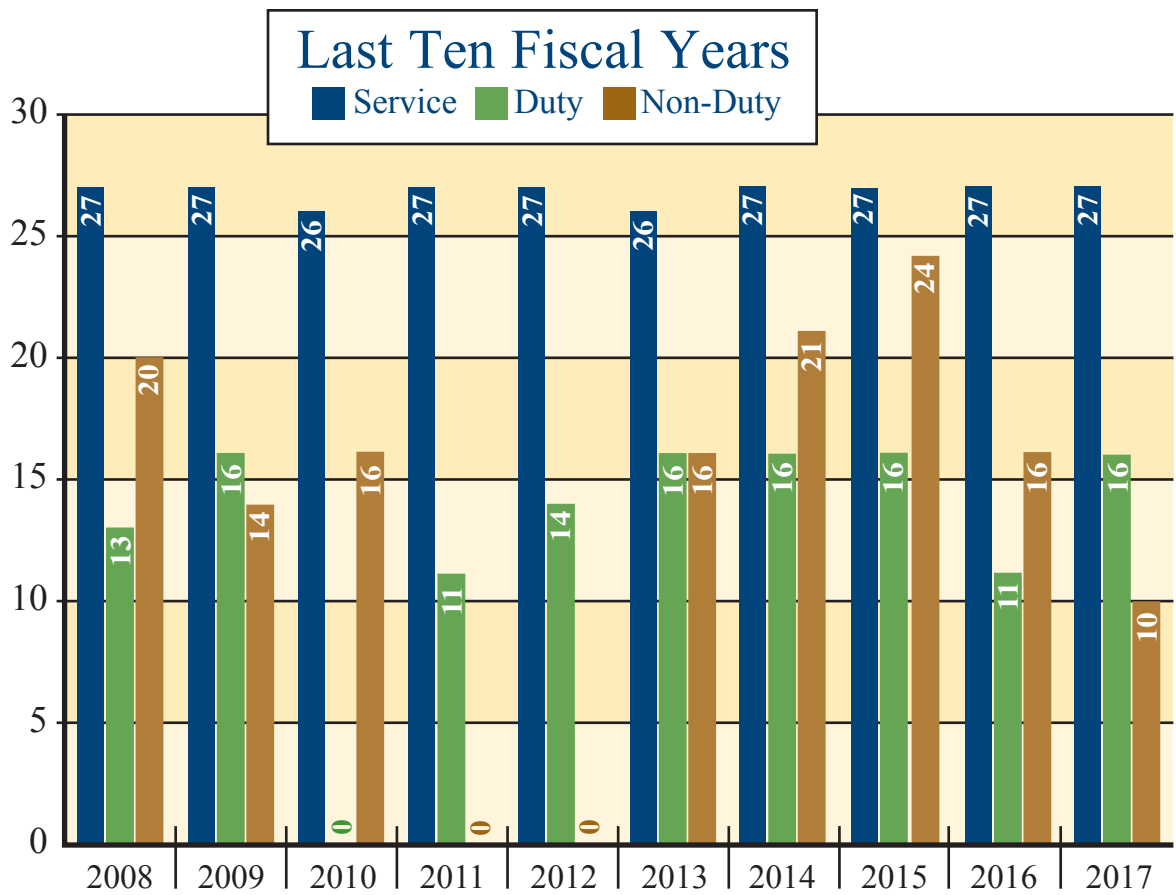
History of Increases

Fiscal Year	Monthly Benefit Amount	Annual Benefit Amount
1992	\$50.00	\$600.00
1993	70.00	840.00
1994	80.00	960.00
1995	90.00	1,080.00
1996	140.00	1,680.00
1997	180.00	2,160.00
1998	230.00	2,760.00
1999	270.00	3,240.00
2000	380.00	4,560.00
2001	420.00	5,040.00

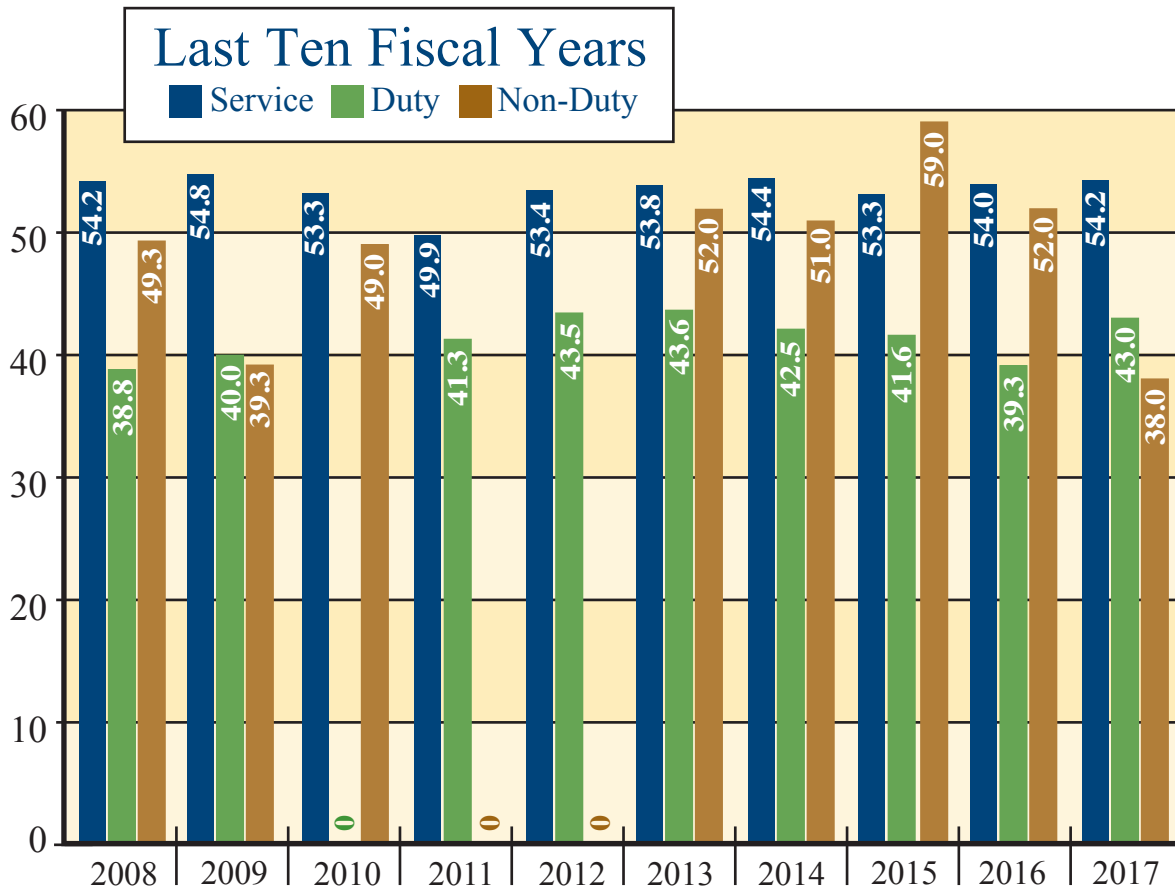
# Membership Receiving Benefits



# Average Years of Service at Retirement



# Average Age at Retirement



## Average Age of Retirees as of April 30, 2017

**Service** **68.9**  
 (861 retired members ranging in age from 47 to 98)

**Duty Disability** **56.7**  
 (138 retired members ranging in age from 32 to 94)

**Non-Duty Disability** **63.3**  
 (52 retired members ranging in age from 38 to 87)





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# KCPERS

Kansas City Police Employees' Retirement Systems

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