

## THE POLICE RETIREMENT SYSTEM OF ST. LOUIS

ANNUAL FINANCIAL REPORT (Audited)

Fiscal Year Ended September 30, 2018

## **BOARD OF TRUSTEES**

## Active Police Officers

Det. Wallace K. (Kent) Leopold, Chairman - Term Expires September 30, 2020
Sgt. Mickey A. Owens - Term Expires September 30, 2020
P.O. Stephen J. (Jay) Schroeder - Term Expires September 30, 2019

## **Retired Police Officers**

Sgt. James H. Long, Secretary - Term Expires September 30, 2019 Michael A. Frederick - Term Expires September 30, 2020 Sgt. James R. Wurm - Term Expires September 30, 2020

## **Mayoral Appointees**

Kelly Camilleri - Term Expires September 30, 2020 Richard L. Kismer - Term Expires September 30, 2020

## Ex-Officio

Darlene Green, Comptroller or Beverly Fitzsimmons, Deputy Comptroller - designee

## **KEY STAFF MEMBERS**

Mr. Stephen G. Olish, Executive Director Cheryl A. Donofrio, Assistant Executive Director

## Founded in 1957 -- The mission of THE POLICE RETIREMENT SYSTEM OF ST. LOUIS

is to provide retirement benefits for all commissioned Members of the St. Louis Metropolitan Police Department and their legal survivors and dependents. The Board of Trustees and its staff shall act as fiduciaries to the trust fund, utilizing all the powers granted under Missouri state statutes to protect the fund from fraud or any other adverse action.

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Hochschild, Bloom & Company LLP Certified Public Accountants Consultants and Advisors

#### **INDEPENDENT AUDITOR'S REPORT**

February 6, 2019

#### The Board of Trustees THE POLICE RETIREMENT SYSTEM OF ST. LOUIS

#### **REPORT ON THE FINANCIAL STATEMENTS**

We have audited the accompanying financial statements of **THE POLICE RETIREMENT SYSTEM OF ST. LOUIS** (the System), a Pension Trust Fund of the City of St. Louis, Missouri, as of and for the years ended September 30, 2018 and 2017, and the related notes to the financial statements, which collectively comprise the System's 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 opinions on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of 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.

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 1000 Washington Square, P. O. Box 1457, Washington, Missouri 63090-8457, 636-239-4785, Fax 636-239-5448

In making those risk assessments, the auditor considers internal control relevant to the System'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 System'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 opinions.

#### Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the System as of September 30, 2018 and 2017, and the respective changes in fiduciary net position thereof for the years then ended, in accordance with accounting principles generally accepted in the United States of America.

#### **Other Matters**

#### Required Supplemental Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and required supplemental information, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplemental 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 audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### Other Information

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

#### OTHER REPORTING REQUIRED BY GOVERNMENT AUDITING STANDARDS

In accordance with *Government Auditing Standards*, we have also issued our report dated February 6, 2019 on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control over financial reporting and compliance.

Hochschild, Bloom & Company LLP

**CERTIFIED PUBLIC ACCOUNTANTS** *Chesterfield, Missouri* 

The following Management's Discussion and Analysis (MD&A) of The Police Retirement System of St. Louis (the System) provides an overview of the System's financial activities for the fiscal year ended September 30, 2018. The MD&A should be read in conjunction with the System's financial statements and supplemental information.

### FINANCIAL HIGHLIGHTS

During the System's fiscal years ended September 30, 2018 and 2017, global economies have shown signs of strengthening. The global low rate environment has resulted in limited returns from fixed income investments and has caused investors to focus on finding income returns in equity markets and alternative investments. With this in mind the System is well diversified and the portfolio is continually managed and monitored to an investment policy established to minimize market risks. Economic indicators in the U.S. remain strong with falling unemployment, active consumers, growth in manufacturing, and a strong U.S. dollar. The System's overall investment returns were above expectations for the fiscal years ended September 30, 2018, 2017, and 2016. This followed the September 30, 2015 fiscal year where the System's investments had a significant decrease. The current U.S. equity bull market began nine years ago and the returns from this portion of the System's portfolio have investment returns exceeding the actuarial assumption for the five years of that nine year period, including 2018 and 2017. The System is a long-range proposition and is responsible for administering benefits to police officers of the City of St. Louis (the City) who have dedicated their careers as public servants to the residents and businesses of the St. Louis metropolitan area. The System has and will continue to provide benefits in a prudent and professional manner to its active and retired Members and their beneficiaries.

The System's net position was \$796 million at September 30, 2018, which represents an increase of \$20 million or 2.5% from September 30, 2017. This increase was primarily due to appreciation in the fair value of investments of \$45 million resulting from a rebounding economy and investment markets.

Additions to net position for the fiscal year 2018 were \$89 million as compared to additions of \$132 million for fiscal year 2017. This figure is comprised of \$51 million in net investment gain, \$5 million in Members' contributions, and \$33 million in employer's contributions. Additions to net position decreased \$43 million from 2017, a 32% decrease principally due to the higher return on the System's investments in fiscal year 2017. The employer's contributions were \$33 and \$34 million for the 2018 and 2017 fiscal years, respectively.

Deductions from net position were \$70 and \$65 million for fiscal years 2018 and 2017, respectively. Benefit payments and refunds of Member's contributions combined represents more than 98% of the total deductions from net position for both the 2018 and 2017 fiscal years.

The overall investment return for the System was 7.56% and 13.09% for fiscal years ended September 30, 2018 and 2017, respectively. The investment return for both of the years ended 2018 and 2017 were above the actuarial assumption investment rate of return of 7.5% (7.65% less 0.15% for administrative expenses) due to an improvement in the investment markets. Active oversight by the Board of Trustees continues to ensure the System retains top performing investment managers while maintaining a balanced investment portfolio.

Changes in active Members' benefits resulted from:

	For The Ended Sep	
	2018	2017
New entrants	107	83
Service retirements:		
Regular	(46)	(29)
Disability	(7)	(3)
Death	-	(1)
Members requesting a refund withdrawal	(54)	(58)
Net Change In Active Members		<u>(8)</u>

As of October 1, 2018, the date of the most recent actuarial valuation (aggregate actuarial cost method), the System's actuarial value of assets, including present value of future Members' contributions, were 74.04% of the actuarial present value of all future benefits which is a decrease from the October 1, 2017 ratio of 75.39%. This ratio decreased as a result of lower investment returns than the actuarial expected returns during four of the last five years (all except 2017). For actuarial valuation computations, actuarial expected investment returns on the actuarial value of assets are recognized over a 5-year period starting with the year originated. The ratio also decreased due to an increase in liability due to Plan experience including a one-time pay increase given to all officers.

#### FINANCIAL STATEMENTS

The financial statements, notes to financial statements, and required supplemental information (RSI) were prepared in conformity with Governmental Accounting Standards Board Statement No. 67 (GASB 67), *Financial Reporting for Pension Plans*. GASB 67 replaces GASB 25 and GASB 50 as reporting standards for governmental employer pension systems.

Highlights of the changes to these financial statements as a result of implementing GASB 67 are as follows:

- GASB 67 only affects reporting requirements and does not prescribe funding methods which could be different. The System will continue to use a funding policy that computes contribution amounts (normal cost) over the future working lifetime of current participants (the aggregate actuarial cost method). For financial reporting purposes, the System is required to use the entry age actuarial cost valuation method in determining the normal cost of the System's benefits, expressed as a percent of active covered payroll for service retirement benefits, disability benefits, survivor benefits, and administrative expenses (excluding expenses related to the investment of the System's assets, all of which are covered by investment return). The contribution amount required to amortize any unfunded actuarial liability is determined annually and as a percentage of participants covered payroll. The required contribution amounts are to be determined by regular annual actuarial valuations, conducted by the System's actuary.
- Statements of net assets and statements of changes in net assets have now been retitled as statements of fiduciary net position and statements of changes in fiduciary net position, respectively.
- GASB 67 classifies the System as a single-employer public pension plan for reporting purposes.

- The discount rate used to calculate the present value of future benefit payments for reporting purposes is based upon the projected plan net position (PNP) using actuarial assumptions about contributions, benefit payments, and the long-term rate of return. If the projected PNP is not sufficient to cover projected benefit payments, a blended discount rate is required using both the weighted average of the long-term rate of return and the muni-bond rate for periods after the PNP is exhausted. The System currently uses the long-term discount rate of 7.5% investment return (7.65% less 0.15% administrative expenses) and expects assets will be sufficient to cover PNP until 2066. Since the PNP was projected to be insufficient to make all projected benefit payments of current plan Members and their beneficiaries, a blended discount rate of 7.24% was used to calculate the System's present value of future benefit payments.
- Footnote requirements include the target asset allocation including long-term expected real rate of return, investments representing 5% or more of the System's fiduciary net position, employer's net pension liability, summary of actuarial assumptions, and sensitivity of net pension liability to changes in the discount rate.
- RSI includes a schedule of changes in employer's net pension liability, schedule of employer's net pension liability, schedule of employer's contributions, and schedule of annual money-weighted rate of return on investments. Notes to the RSI include significant methods and assumptions used in calculating the actuarially determined contributions.

The financial statements section of the annual financial report consist of:

- The statements of fiduciary net position includes the System's assets, deferred outflows, liabilities, deferred inflows, and resulting net position. The net position is restricted for pensions. It is a snapshot of the financial position of the System at that specific point in time.
- The statements of changes in fiduciary net position summarizes the System's financial transactions that have occurred during the current and previous fiscal years.
- The notes to financial statements are an integral part of the above financial statements and include additional information not readily evident in the statements themselves.

Other items included in the annual financial report are the MD&A, RSI, and other supplemental information which provide other information considered useful in evaluating the condition of the System.

#### FINANCIAL ANALYSIS

Total assets at September 30, 2018 were \$800,085,456 and were mainly comprised of cash and investments. Total assets increased \$21,737,542 or 3% from the prior year, mainly due to the appreciation in the fair value of investments of \$45,168,322.

Total liabilities at September 30, 2018 were \$3,938,062 and consisted of unsettled investment purchase transactions, net pension liability - System's staff pension related, Members' contributions refundable, and accrued expenses. Total liabilities increased \$2,077,139 or 112% from the prior year, mainly due to the increase in unsettled investment purchase transactions.

The System implemented GASB 68, *Accounting and Financial Reporting by State and Local Governments* at September 30, 2015. The System's staff participate in the Employees Retirement System of the City of St.

Louis (ERS), a cost-sharing, multi-employer defined benefit plan. The System elected to report pension elements based on ERS' September 30, 2015 actuarial valuation beginning of the year as allowed by GASB 68. The pension elements required to be reported in the statements of fiduciary net position include: 1) net pension liability and 2) deferred outflows/inflows of resources.

Net position - restricted for pensions was \$796,160,410 at September 30, 2018, an increase from the prior year of \$19,580,932 or 2.5%. This increase mainly resulted from the increase in the fair value of investments. Bene-fits paid by the System have exceeded investment earnings in six of the last ten fiscal years, including 2018; however, in 2017, the System's investment earnings exceed benefits paid.

Following is a condensed version of the statements of fiduciary net position (dollars in thousands):

					Total Ch	ange	
		September 30		Amou	unt	Percenta	ige
	2018	2017	2016	2018	2017	2018	2017
ASSETS							
Investments	\$ 790,218	769,331	701,567	20,887	67,764	2.7 %	9.7
Cash and cash							
equivalents	8,343	7,739	6,940	604	799	7.8	11.5
Receivables	1,333	1,034	2,390	299	(1,356)	28.9	(56.7)
Capital assets, net	191	244	296	(53)	(52)	(21.7)	(17.6)
Total Assets	800,085	778,348	711,193	21,737	67,155	2.8	9.4
DEFERRED OUTFLOWS							
System's staff pension							
related	38	105	125	(67)	(20)	(63.8)	(16.0)
LIABILITIES	3,938	1,861	2,064	2,077	(203)	111.6	(9.8)
DEFERRED INFLOWS							
System's staff pension							
related	25	13	17	12	(4)	92.3	(23.5)
NET POSITION	\$ 796,160	776,579	709,237	19,581	67,342	2.5 %	9.5

#### **Revenues - Additions to Net Position**

Net investment income totaled \$51,089,258 in fiscal year 2018 which represents a decrease of \$42,430,821 from the previous fiscal year of \$93,520,079. The decrease resulted mainly from appreciation in the fair value of investments being \$42,617,545 less for fiscal year 2018 as compared to fiscal year 2017. Investment income above is net of investment expenses (management and custodial fees) totaling \$2,865,515 which increased by \$80,315 or 3% from fiscal year 2017.

The reserves needed to finance retirement benefits as well as death and disability benefits are accumulated through the collection of employer's and Members' contributions and through earnings on investments. Members, excluding Members participating in the DROP, contribute 7% of their salary to fund future retirement benefits. This percentage is set by State Statute and was unchanged from the prior fiscal year. Contributions

income totaled \$38,233,715 (\$33,104,561 from the employer and \$5,129,154 from Members) for the year ended September 30, 2018, a decrease of \$246,781 or 0.6% from the prior year.

#### **Expenses - Deductions from Net Position**

The primary expenses of the System include the payment of pension benefits to retirees and beneficiaries, refunds of Members' contributions, and administrative expenses to operate the System. Total expenses for fiscal year 2018 were \$69,742,041, an increase of \$5,083,300 or 7.9% from fiscal year 2017. This increase is mainly due to an increase in benefits paid to retirees and beneficiaries, which is a function of the number of Members who retired during the year and their respective years of service, average final compensation, and DROP account when elected as a lump-sum distribution, and an increase in refunds of members' contributions.

Following is a condensed version of the statements of changes in fiduciary net position (dollars in thousands):

	I	For The Years			Total Cl	hange	
	End	led September 3	30	Amou	ınt	Percent	age
	2018	2017	2016	2018	2017	2018	2017
ADDITIONS			· · · · ·				
Net investment income	\$ 51,089	93,520	52,928	(42,431)	40,592	(45.4) %	76.7
Employer's contributions	33,105	33,826	30,778	(721)	3,048	(2.1)	9.9
Members' contributions	5,129	4,654	4,377	475	277	10.2	6.3
Total Additions	89,323	132,000	88,083	(42,677)	43,917	(32.3)	49.9
DEDUCTIONS							
Benefits paid	63,604	59,959	59,674	3,645	285	6.1	0.5
Refunds of Members'	,	,	,	,			
contributions	4,972	3,493	2,964	1,479	529	42.3	17.8
Administrative expenses	1,166	1,206	1,103	(40)	103	(3.3)	9.3
Total Deductions	69,742	64,658	63,741	5,084	917	7.9	1.4
CHANGE IN NET POSITION	19,581	67,342	24,342	(47,761)	43,000	(70.9)	176.6
NET POSITION, BEGINNING							
OF YEAR	776,579	709,237	684,895	67,342	24,342	9.5	3.6
NET POSITION, END							
OF YEAR	\$ 796,160	776,579	709,237	19,581	67,342	2.5 %	9.5

#### SUMMARY

The System's net position - restricted for pensions has increased in seven out of the past ten years. The decreases (which occurred in fiscal years 2015, 2011, and 2009) were the result of investment losses due to economic slowdowns that detrimentally affected most pension systems in those years. The Board of Trustees believe, and the actuarial calculations confirm, that the System is in a financial position to meet its current and projected obligations in the immediate future. However, current actuarial projections using the GASB method indicate that the System may have an insufficient net position to make all projected future benefit payments of current Members of the System and their beneficiaries if there are no contributions for future members. With a

continued focus on a prudent investment program, cost controls, and strategic planning, the System should over time improve its current financial position.

#### **REQUESTS FOR INFORMATION**

This financial report is designed to provide the Board of Trustees, our Members, and other users of our financial report with a general overview of the System's finances and to demonstrate the System's accountability for the money it receives. If you have any questions about this report or need additional financial information, contact:

Stephen G. Olish, Executive Director The Police Retirement System of St. Louis 2020 Market Street St. Louis, MO 63103-2210 or steve.olish@stlouisprs.org

## 

ASSETS         2018         2017           Investments at fair value: Equitives: Collective investment funds Corporate stocks         \$ 199,555,217         194,136,187           Collective investment funds         \$ 196,300,271         198,015,229           Real estate securities funds         \$ 66,698,035         59,907,314           Fixed income:         \$ 66,698,035         59,907,314           Collective investment funds         \$ 15,203,010         15,338,624           Government securities         \$ 24,247,039         20,157,533           Collective investment funds         \$ 15,203,010         15,338,624           Moorgage backed securities         \$ 12,666,688,687         12,174,051           Partnership interests         \$ 160,422,634         146,544,244           Money market funds         \$ 44,119,192         \$ 43,466,941           Hedge funds         \$ 22,887,884         37,015,903           Investment property         \$ 881,629         \$ 89,624         \$ 881,629           Total Investments         \$ 790,218,206         769,331,231           Cash and cash equivalents         \$ 952,027         \$ 918,189           Unsettled investment sale transactions         \$ 924,303         \$ 116,056           Benefits recovarable         \$ 1,233,568         \$ 1,033,258		September 30	
Investments at fair value:         Equities:         S         199,555,217         194,136,187           Collective investment funds         5         199,555,217         194,136,187           Corporate stocks         66,698,035         59,907,314           Fixed income:         66,698,035         59,907,314           Corporate bonds         47,508,443         51,693,576           Mortgage backed securities         24,247,039         20,157,53           Collective investment funds         15,203,010         15,338,624           Government securities         16,042,637         12,174,051           Partnership interests         160,422,634         446,6941           Molege funds         22,857,884         37,015,903           Investment property         88,0624         881,629           Total Investments         790,218,206         709,31,231           Cash and cash equivalents         8,342,877         7,738,903           Receivables:         11,333,568         1,034,245           Capital assets, net of accumulated depreciation         190,805         243,535           Total Receivables         1,333,568         1,034,245           Capital assets, net of accumulated depreciation         190,805         243,535           Total Rec		2018	2017
Equities:         S         199,555,217         194,136,187           Corporate stocks         196,300,25,229         Real estate securities funds         66,698,035         59,907,314           Fixed income:         Corporate brocks         24,247,039         20,157,533         Collective investment funds         15,203,010         15,338,624           Government securities         24,247,039         20,157,533         Collective investment funds         15,203,010         15,338,624           Government securities         12,066,857         12,174,051         12,466,857         12,174,051           Partnership interests         160,422,634         146,544,244         Money market funds         24,247,039         20,157,533           Interest funds         24,247,039         20,157,533         150,050         11,3466,987         12,174,051           Partnership interests         160,422,634         146,544,244         Money market funds         24,247,039         20,157,593           Interest funds         24,247,039         20,157,050         19,3466,941         146,954,244         Money market funds         24,247,039         20,157,593           Investment property         889,624         881,629         769,31,231         Cash and cash equivalents         77,738,903         16,955         243,303	ASSETS		
Collective investment funds         \$ 199,555,217         194,136,187           Corporate stocks         196,000,271         188,015,229           Real estate securities funds         66,698,035         59,907,314           Fixed income:         47,508,443         51,693,576           Corporate bonds         47,508,443         51,693,576           Mortgage backed securities         24,247,039         20,157,533           Collective investment funds         15,203,010         15,338,624           Government securities         12,686,857         12,174,051           Partnership interests         160,422,634         146,544,244           Money market funds         22,587,884         37,015,903           Investment property         889,624         881,629           Total Investments         790,218,206         769,331,231           Cash and cash equivalents         8,342,877         7,738,903           Receivables:         11         11         1160,656           Interest and dividends         952,027         918,189           Unsettled investment sale transactions         294,303         116,056           Benefits recoverable         87,238         77,738,903           Total Acceivables         1,333,568         1,034,245	Investments at fair value:		
Corporate stocks         196,300,271         188,015,229           Real estate securities funds         66,698,035         59,907,314           Fixed income:         20,157,533         Collective investment funds         116,338,624           Government securities         12,686,857         12,174,051           Partnership interests         160,422,634         146,544,244           Money market funds         41,19,192         43,466,941           Hedge funds         22,587,884         37,015,903           Investment property         889,624         881,629           Total Investments         790,218,206         769,331,231           Cash and eash equivalents         8,342,877         7,738,903           Receivables:         11,333,568         1.034,245           Insettled investment sele transactions         294,303         116,056           Benefits recoverable         87,238         -           Total Receivables         1,333,568         1.034,245           Capital assets, net of accumulated depreciation         190,805         243,535           Total Assets         800,085,456         778,347,914           DEFERRED OUTFLOWS OF RESOURCES         2322,850         340,365           System's staff pension related         248,006	Equities:		
Real estate securities funds       66,698,035       59,907,314         Fixed income:       Corporate bonds       47,508,443       51,693,576         Mortgage backed securities       24,247,039       20,157,533         Collective investment funds       12,266,857       12,174,051         Government securities       12,666,857       12,174,051         Partnership interests       160,422,634       146,544,244         Money market funds       44,119,192       43,466,941         Hedge funds       22,587,884       37,015,903         Investment property       889,624       881,629         Total Investments       790,218,206       769,331,231         Cash and cash equivalents       8,342,877       7,738,903         Receivables:       11,333,568       11,034,245         Orapital assets, net of accumulated depreciation       190,805       243,535         Total Assets       800,085,456       778,347,914         DEFERRED OUTFLOWS OF RESOURCES       397,808       581,534         System's staff pension related       248,006       333,568         Accrued investment management fees       597,808       581,534         Met pension liability - System's staff pension related       248,006       333,568         Accr	Collective investment funds	\$ 199,555,217	194,136,187
Fixed income:       47,508,443       51,693,576         Corporate bonds       47,508,443       51,693,576         Mortgage backed securities       24,247,7039       20,157,533         Collective investment funds       15,203,010       15,338,624         Government securities       12,086,857       12,174,051         Partnership interests       16,0422,634       146,544,244         Money market funds       44,119,192       43,46,594         Hedge funds       22,587,884       37,015,903         Investment property       889,624       881,629         Total Investments       790,218,206       769,331,231         Cash and cash equivalents       8,342,877       7,738,903         Receivables:       Interest and dividends       952,027       918,189         Unsettled investment sale transactions       294,303       116,056         Benefits recoverable       87,238       -         Total Receivables:       110,805       243,535         Outpetched investment sale transactions       2943,535       -         Total Receivables       1,333,568       1,034,245         Capital assets       800,085,456       778,347,914         DEFERRED OUTFLOWS OF RESOURCES       597,808       597,808	Corporate stocks	196,300,271	188,015,229
Corporate bonds         47,508,443         51,693,576           Mortgage backed securities         24,247,039         20,157,533           Collective investment funds         15,203,010         15,338,624           Government securities         12,086,857         12,174,051           Partnership interests         160,422,634         146,544,244           Money market funds         44,119,192         43,466,941           Hedge funds         22,587,884         37,015,903           Investment property         889,624         881,629           Total Investments         790,218,206         769,331,231           Cash and cash equivalents         8,342,877         7,738,903           Receivables:         Interest and dividends         952,027         918,189           Unsettled investment sale transactions         294,303         116,056           Benefits recoverable         87,238         -           Total Receivables:         1,333,568         1,034,245           Capital assets, net of accumulated depreciation         190,805         243,535           Total Assets         800,085,456         778,347,914           DEFERRED OUTFLOWS OF RESOURCES         597,808         581,534           Net pension liability - System's staff pension related	Real estate securities funds	66,698,035	59,907,314
Morgage backed securities         24,247,039         20,157,533           Collective investment funds         15,203,010         15,338,624           Government securities         12,086,6857         12,174,051           Partnership interests         160,422,634         146,544,244           Money market funds         44,119,192         43,466,941           Hedge funds         22,587,884         37,015,903           Investment property         889,624         881,629           Total Investments         790,218,206         769,331,231           Cash and cash equivalents         8,342,877         7,738,903           Receivables:         116,056         952,027         918,189           Unsettled investment sale transactions         294,303         116,056           Benefits recoverable         87,238         -           Total Receivables:         11,333,568         1,034,245           Capital assets, net of accumulated depreciation         190,805         243,535           Total Assets         80,085,456         778,347,914           DEFERRED OUTFLOWS OF RESOURCES         597,808         340,365           System's staff pension related         248,006         333,568           Accrued investment management fees         597,808	Fixed income:		
Collective investment funds         15,203,010         15,338,624           Government securities         12,666,857         12,174,051           Partnership interests         160,422,634         146,544,244           Money market funds         44,119,192         43,466,941           Hedge funds         22,587,884         37,015,903           Investment property         889,624         881,629           Total Investments         790,218,206         769,331,231           Cash and cash equivalents         8,342,877         7,738,903           Receivables:         Interest and dividends         952,027         918,189           Unsettled investment sale transactions         294,303         116,056           Benefits recoverable         87,238         -           Total Receivables:         1,333,568         1,034,245           Capital assets, net of accumulated depreciation         190,805         243,535           Total Assets         800,085,456         778,347,914           DEFERRED OUTFLOWS OF RESOURCES         38,412         105,338           System's staff pension related         246,006         333,568           Accrued investment management fees         597,808         581,534           Net pension liability - System's staff pension related </td <td>Corporate bonds</td> <td>47,508,443</td> <td>51,693,576</td>	Corporate bonds	47,508,443	51,693,576
Government securities         12,686,857         12,174,051           Partnership interests         160,422,634         146,544,244           Money market funds         22,587,884         146,544,244           Money market funds         22,587,884         37,015,903           Investment property         889,624         881,629           Total Investments         790,218,206         769,331,231           Cash and cash equivalents         8,342,877         7,738,903           Receivables:         Interest and dividends         952,027         918,189           Unsettled investment sale transactions         294,303         116,056           Benefits recoverable         87,238         -           Total Receivables         1,333,568         1,034,245           Capital assets, net of accumulated depreciation         190,805         243,535           Total Assets         800,085,456         778,347,914           DEFERRED OUTFLOWS OF RESOURCES         System's staff pension related         38,412         105,338           LIABILITIES         Unsettled investment purchase transactions         2,322,850         340,365           Members' contributions refundable         62,6,617         480,216           Accrued investment purchase transactions         2,322,850	Mortgage backed securities	24,247,039	20,157,533
Partnership interests         160,422,634         146,544,244           Money market funds         44,119,192         43,466,941           Hedge funds         22,877,884         37,015,903           Investment property         889,624         881,629           Total Investments         790,218,206         769,331,231           Cash and cash equivalents         8,342,877         7,738,903           Receivables:         1         1160,656           Interest and dividends         952,027         918,189           Unsettled investment sale transactions         294,303         116,056           Benefits recoverable         87,238         -           Total Receivables         1,333,568         1,034,245           Capital assets, net of accumulated depreciation         190,805         243,535           Total Assets         800,085,456         778,347,914           DEFERRED OUTFLOWS OF RESOURCES         340,365         340,365           System's staff pension related         342,871         480,216           Accrued investment purchase transactions         2,322,850         340,365           Members' contributions refundable         626,617         480,216           Accrued investment management fees         597,808         581,534 <td>Collective investment funds</td> <td>15,203,010</td> <td>15,338,624</td>	Collective investment funds	15,203,010	15,338,624
Money market funds $44,119,192$ $43,466,941$ Hedge funds $22,587,884$ $37,015,903$ Investment property       Total Investments $790,218,206$ $769,331,231$ Cash and cash equivalents $8,342,877$ $7,738,903$ Receivables:       Interest and dividends $952,027$ $918,189$ Unsettled investment sale transactions $294,303$ $116,056$ Benefits recoverable $87,238$ $-$ Total Receivables $1,333,568$ $1,034,245$ Capital assets, net of accumulated depreciation $190,805$ $243,535$ Total Assets $800,085,456$ $778,347,914$ DEFERRED OUTFLOWS OF RESOURCES $38,412$ $105,338$ System's staff pension related $38,412$ $105,338$ LIABILITIES $243,066$ $333,568$ $340,365$ Members' contributions refundable $626,617$ $480,216$ Accrued administrative expenses $142,781$ $125,240$ Total Liabilities $3,938,062$ $1,860,923$ DEFERRED INFLOWS OF RESOURCES $597,808$ $581,534$ Net pension liability - System's staff pen	Government securities	12,686,857	12,174,051
Hedge funds22,587,88437,015,903Investment property889,624881,629Total Investments790,218,206769,331,231Cash and cash equivalents8,342,8777,738,903Receivables:Interest and dividends952,027918,189Unsettled investment sale transactions294,303116,056Benefits recoverable87,238-Total Receivables:1,333,5681,034,245Capital assets, net of accumulated depreciation190,805243,535Total Assets800,085,456778,347,914DEFERRED OUTFLOWS OF RESOURCES38,412105,338System's staff pension related2322,850340,365Members' contributions refundable626,617480,216Accrued investment management fees597,808581,534Net pension liability - System's staff pension related244,806333,568Accrued administrative expenses142,781125,240Total Liabilities3,938,0621,860,923DEFERRED INFLOWS OF RESOURCES25,39612,851	Partnership interests	160,422,634	146,544,244
Investment property Total Investments889,624881,629Total Investments709,218,206769,331,231Cash and cash equivalents8,342,8777,738,903Receivables: Interest and dividends952,027918,189Unsettled investment sale transactions294,303116,056Benefits recoverable Total Receivables87,238-Total Receivables1,333,5681,034,245Capital assets, net of accumulated depreciation Total Assets190,805243,535DEFERRED OUTFLOWS OF RESOURCES System's staff pension related38,412105,338LIABILITIES Unsettled investment purchase transactions Accrued administrative expenses Total Liabilities2322,850340,365Members' contributions refundable Accrued administrative expenses 	Money market funds	44,119,192	43,466,941
Total Investments790,218,206769,331,231Cash and cash equivalents8,342,8777,738,903Receivables: Interest and dividends952,027918,189Unsettled investment sale transactions294,303116,056Benefits recoverable Total Receivables87,238-Total Receivables1,333,5681,034,245Capital assets, net of accumulated depreciation Total Assets190,805243,535DEFERRED OUTFLOWS OF RESOURCES System's staff pension related38,412105,338LIABILITIES Members' contributions refundable Accrued administrative expenses Total Liabilities2,322,850340,365Members' contributions refundable Accrued administrative expenses Total Liabilities248,006333,568DEFERRED INFLOWS OF RESOURCES System's staff pension related248,006333,356DEFERRED INFLOWS OF RESOURCES System's staff pension related248,006333,356DEFERRED INFLOWS OF RESOURCES System's staff pension related248,0061,360,923DEFERRED INFLOWS OF RESOURCES System's staff pension related25,3961,860,923	Hedge funds	22,587,884	37,015,903
Cash and cash equivalents8,342,8777,738,903Receivables: Interest and dividends952,027918,189Unsettled investment sale transactions294,303116,056Benefits recoverable87,238-Total Receivables1,333,5681,034,245Capital assets, net of accumulated depreciation190,805243,535Total Assets800,085,456778,347,914DEFERRED OUTFLOWS OF RESOURCES38,412105,338System's staff pension related38,412105,338LIABILITIES02,322,850340,365Unsettled investment purchase transactions2,322,850340,365Members' contributions refundable626,617480,216Accrued investment management fees597,808581,534Net pension liability - System's staff pension related248,006333,568Accrued administrative expenses142,781125,240Total Liabilities3,938,0621,860,923DEFERRED INFLOWS OF RESOURCES25,39612,851	Investment property	889,624	881,629
Receivables: Interest and dividends952,027918,189Unsettled investment sale transactions294,303116,056Benefits recoverable87,238-Total Receivables1,333,5681,034,245Capital assets, net of accumulated depreciation Total Assets190,805243,535Capital assets800,085,456778,347,914DEFERRED OUTFLOWS OF RESOURCES System's staff pension related38,412105,338LIABILITIES Unsettled investment purchase transactions Members' contributions refundable Accrued investment management fees597,808581,534Net pension liability - System's staff pension related248,006333,568125,240Jotal Liabilities3,938,0621,860,9231,860,923DEFERRED INFLOWS OF RESOURCES System's staff pension related2,322,85012,851	Total Investments	790,218,206	769,331,231
Interest and dividends952,027918,189Unsettled investment sale transactions294,303116,056Benefits recoverable87,238-Total Receivables1,333,5681,034,245Capital assets, net of accumulated depreciation190,805243,535Total Assets800,085,4567778,347,914DEFERRED OUTFLOWS OF RESOURCESSystem's staff pension related38,412105,338LIABILITIES2,322,850340,365Members' contributions refundable626,617480,216Accrued investment purchase transactions2,322,850340,365Members' contributions refundable626,617480,216Accrued administrative expenses142,781125,240Total Liabilities3,938,0621,860,923DEFERRED INFLOWS OF RESOURCESSystem's staff pension related243,5352,322,850340,365Members' contributions refundable622,617Accrued administrative expenses142,781125,2403,938,062Total Liabilities3,938,062System's staff pension related25,39612,851	Cash and cash equivalents	8,342,877	7,738,903
Unsettled investment sale transactions294,303116,056Benefits recoverable87,238-Total Receivables1,333,5681,034,245Capital assets, net of accumulated depreciation190,805243,535Total Assets800,085,456778,347,914DEFERRED OUTFLOWS OF RESOURCESSystem's staff pension related38,412105,338LIABILITIES38,412105,338Unsettled investment purchase transactions2,322,850340,365Members' contributions refundable626,617480,216Accrued investment management fees597,808581,534Net pension liability - System's staff pension related248,006333,568Accrued administrative expenses142,781125,240Total Liabilities3,938,0621,860,923DEFERRED INFLOWS OF RESOURCES25,39612,851	Receivables:		
Benefits recoverable Total Receivables87,238-Capital assets, net of accumulated depreciation Total Assets190,805243,535Capital assets, net of accumulated depreciation Total Assets190,805243,535BUD,085,456778,347,914DEFERRED OUTFLOWS OF RESOURCES System's staff pension related38,412105,338LIABILITIES Unsettled investment purchase transactions Members' contributions refundable Accrued investment management fees Net pension liability - System's staff pension related2,322,850340,365Accrued administrative expenses Total Liabilities248,006333,5681125,240DEFERRED INFLOWS OF RESOURCES System's staff pension related3,938,0621,860,923DEFERRED INFLOWS OF RESOURCES System's staff pension related21,851125,39612,851	Interest and dividends	952,027	918,189
Benefits recoverable Total Receivables87,238-Interstein Constraints1,333,5681,034,245Capital assets, net of accumulated depreciation Total Assets190,805243,535BefERRED OUTFLOWS OF RESOURCES System's staff pension related38,412105,338LIABILITIES Unsettled investment purchase transactions Members' contributions refundable Accrued investment management fees Net pension liability - System's staff pension related2,322,850340,365Accrued administrative expenses Total Liabilities248,006333,568125,240DEFERRED INFLOWS OF RESOURCES System's staff pension related3,938,0621,860,923DEFERRED INFLOWS OF RESOURCES System's staff pension related21,851125,240	Unsettled investment sale transactions	294,303	116,056
Capital assets, net of accumulated depreciation Total Assets190,805 243,535243,535 778,347,914DEFERRED OUTFLOWS OF RESOURCES System's staff pension related38,412105,338LIABILITIES Unsettled investment purchase transactions Members' contributions refundable Accrued investment management fees Net pension liability - System's staff pension related340,365 243,535DEFERRED INFLOWS OF RESOURCES Total Liabilities333,568 142,781125,240 125,240DEFERRED INFLOWS OF RESOURCES System's staff pension related248,006 248,006333,568 2,322,850DEFERRED INFLOWS OF RESOURCES System's staff pension related25,396 2,39612,851	Benefits recoverable	87,238	-
Total Assets800,085,456778,347,914DEFERRED OUTFLOWS OF RESOURCES System's staff pension related38,412105,338LIABILITIES Unsettled investment purchase transactions Members' contributions refundable Accrued investment management fees2,322,850340,365Members' contributions refundable Accrued investment management fees597,808581,534Net pension liability - System's staff pension related Accrued administrative expenses Total Liabilities142,781125,240DEFERRED INFLOWS OF RESOURCES System's staff pension related25,39612,851	Total Receivables		1,034,245
Total Assets800,085,456778,347,914DEFERRED OUTFLOWS OF RESOURCES System's staff pension related38,412105,338LIABILITIES Unsettled investment purchase transactions Members' contributions refundable Accrued investment management fees2,322,850340,365Members' contributions refundable Accrued investment management fees597,808581,534Net pension liability - System's staff pension related Accrued administrative expenses Total Liabilities142,781125,240DEFERRED INFLOWS OF RESOURCES System's staff pension related25,39612,851	Capital assets, net of accumulated depreciation	190,805	243,535
System's staff pension related38,412105,338LIABILITIESUnsettled investment purchase transactions2,322,850340,365Members' contributions refundable626,617480,216Accrued investment management fees597,808581,534Net pension liability - System's staff pension related248,006333,568Accrued administrative expenses142,781125,240Total Liabilities3,938,0621,860,923DEFERRED INFLOWS OF RESOURCES25,39612,851			
LIABILITIESUnsettled investment purchase transactions2,322,850340,365Members' contributions refundable626,617480,216Accrued investment management fees597,808581,534Net pension liability - System's staff pension related248,006333,568Accrued administrative expenses142,781125,240Total Liabilities3,938,0621,860,923DEFERRED INFLOWS OF RESOURCESSystem's staff pension related25,39612,851	DEFERRED OUTFLOWS OF RESOURCES		
Unsettled investment purchase transactions2,322,850340,365Members' contributions refundable626,617480,216Accrued investment management fees597,808581,534Net pension liability - System's staff pension related248,006333,568Accrued administrative expenses142,781125,240Total Liabilities3,938,0621,860,923DEFERRED INFLOWS OF RESOURCESSystem's staff pension related25,39612,851	System's staff pension related	38,412	105,338
Members' contributions refundable626,617480,216Accrued investment management fees597,808581,534Net pension liability - System's staff pension related248,006333,568Accrued administrative expenses142,781125,240Total Liabilities3,938,0621,860,923DEFERRED INFLOWS OF RESOURCESSystem's staff pension related25,39612,851	LIABILITIES		
Accrued investment management fees597,808581,534Net pension liability - System's staff pension related248,006333,568Accrued administrative expenses142,781125,240Total Liabilities3,938,0621,860,923DEFERRED INFLOWS OF RESOURCESSystem's staff pension related25,39612,851	Unsettled investment purchase transactions	2,322,850	340,365
Net pension liability - System's staff pension related248,006333,568Accrued administrative expenses142,781125,240Total Liabilities3,938,0621,860,923DEFERRED INFLOWS OF RESOURCESSystem's staff pension related25,39612,851	Members' contributions refundable	626,617	480,216
Accrued administrative expenses142,781125,240Total Liabilities3,938,0621,860,923DEFERRED INFLOWS OF RESOURCES25,39612,851	Accrued investment management fees	597,808	581,534
Total Liabilities3,938,0621,860,923DEFERRED INFLOWS OF RESOURCES System's staff pension related25,39612,851	Net pension liability - System's staff pension related	248,006	333,568
DEFERRED INFLOWS OF RESOURCES System's staff pension related25,39612,851	Accrued administrative expenses	142,781	125,240
System's staff pension related25,39612,851	Total Liabilities	3,938,062	1,860,923
	<b>DEFERRED INFLOWS OF RESOURCES</b>		
NET POSITION - RESTRICTED FOR PENSIONS         \$ 796,160,410         776,579,478	System's staff pension related	25,396	12,851
	NET POSITION - RESTRICTED FOR PENSIONS	\$ 796,160,410	776,579,478

## THE POLICE RETIREMENT SYSTEM OF ST. LOUIS STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION

	For The Years		
	Ended September 30		
	2018	2017	
ADDITIONS TO NET POSITION ATTRIBUTED TO			
Investment income:			
Net appreciation in fair value of investments	\$ 45,168,322	87,785,867	
Interest:			
Corporate bonds	2,548,354	2,556,621	
Government obligations	881,345	934,070	
Other	569,142	321,146	
Dividends	4,633,130	4,438,518	
Securities lending income	134,112	219,904	
Class action settlements	12,240	4,800	
Recapture commissions	8,128	44,353	
Total Investment Income	53,954,773	96,305,279	
Less - Investment management and custodial fees	2,865,515	2,785,200	
Net Investment Income	51,089,258	93,520,079	
Contributions:			
Employer	33,104,561	33,826,528	
Members	4,600,917	4,456,241	
Portability	528,237	197,727	
Total Contributions	38,233,715	38,480,496	
Total Additions	89,322,973	132,000,575	
DEDUCTIONS FROM NET POSITION ATTRIBUTED TO			
Benefits paid to retirees and beneficiaries	63,603,561	59,959,184	
Refunds of Members' contributions	4,972,550	3,493,396	
Administrative expenses	1,165,930	1,206,161	
Total Deductions	69,742,041	64,658,741	
CHANGE IN NET POSITION	19,580,932	67,341,834	
NET POSITION - RESTRICTED FOR PENSIONS,			
BEGINNING OF YEAR	776,579,478	709,237,644	
NET POSITION - RESTRICTED FOR PENSIONS,			
END OF YEAR	\$ 796,160,410	776,579,478	

#### NOTE A - DESCRIPTION OF PLAN

**THE POLICE RETIREMENT SYSTEM OF ST. LOUIS** (the System) administers a single employer defined benefit pension plan providing pension benefits to the City of St. Louis police officers (the Members). Membership in the System consists of:

	Septem	September 30	
	2018	2017	(Decrease)
Benefit status:			
Retirees	1,441	1,433	8
Beneficiaries	479	475	4
Total Benefit Status	1,920	1,908	12
Current active Members:			
Vested - participating in DROP	123	141	(18)
Vested - non-DROP	247	218	29
Total Vested	370	359	11
Nonvested	891	902	(11)
Total Current Active Members	1,261	1,261	
Total Membership	3,181	3,169	12

The System provides retirement benefits as well as death and disability benefits. Members can voluntarily retire after a minimum of 20 years of service or attaining age 55. The monthly allowance consists of 40% of the two-year average final compensation at 20 years of service, plus 2% of such final average compensation for each of the next five years of service, plus 4% of average final compensation for each additional year of service after 25 years up to a maximum of 30 years. The monthly allowance of Members who have in excess of 30 years of service is increased by 5%. The maximum pension is 75% of average final compensation.

Covered Members contributed 7% of their salary as specified by RSMo 86.320. Upon leaving employment due to service retirement, death, or disability due to an accident in the actual performance of duty, the Member's contributions are refunded. In addition, terminated Members receive interest.

The System implemented a Deferred Retirement Option Plan (DROP) feature during the System's fiscal year ended September 30, 1996. The DROP option is available to Members of the System who have at least 20 years of creditable service and have achieved eligibility for retirement. Those Members who elect to participate will continue active employment, will have a service retirement allowance credited monthly in the DROP account of the Member, and will no longer make contributions to the System. During participation in DROP, the Member will not receive credit for service and the Member shall not share in any benefit improvement that is enacted or becomes effective while such Member is participating in DROP. A Member may participate in DROP only once for any period up to five years, at which point the Member may re-enter the System. At retirement the funds in the Member's DROP account plus interest is available to the Member in a lump sum or in installments. The number of active Members with DROP account balances and currently participating at September 30, 2018 and 2017 were as follows:

	Currently	Total DROP	DROP Account
	<u>Participating</u>	Accounts	Balances
<b>2018</b>	<b>123</b>	<b>327</b>	<b>\$ 39,129,144</b> 39,941,906
2017	141	314	

## NOTE B - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The significant accounting policies consistently applied by the System in the preparation of the accompanying financial statements are summarized below:

#### 1. **Reporting Entity**

The System is a pension trust fund of the City of St. Louis, Missouri (the City). As such, the System is included in the City's Comprehensive Annual Financial Report as a Pension Trust Fund. The System and its Board of Trustees (Board) are not financially accountable for any other entities or other organizations. Accordingly, the System is the only entity included in this financial report.

#### 2. Board Composition

The Board shall consist of nine (9) Trustees, three (3) of whom are elected by the active Members of the System, three (3) of whom are elected by the retired Members of the System, two (2) of whom are appointed by the Mayor of the City, and one (1) of whom are Trustees by virtue of offices (Comptroller of the City or the Comptroller's designee -- Deputy Comptroller or the first Assistant Comptroller).

#### 3. Basis of Accounting

The financial statements were prepared using the accrual basis of accounting. Members' and employer's contributions are recognized in the period in which the contributions are due. Benefits and refunds are recognized when due and payable in accordance with the System's benefit provisions. Expenses are recorded when the corresponding liabilities are incurred, regardless of when payment is made. Dividend income is recognized based on the ex-dividend date and interest income is recognized on the accrual basis as earned. Fair value changes are recorded as investment income or loss. Investment purchases and sales are recorded on a trade-date basis (the date upon which the transaction is initiated).

#### 4. GASB 67 Financial Reporting Model

The System's financial statements are prepared in conformity with GASB 67's financial reporting requirements for governmental pension systems. GASB 67 includes required presentation of the financial statements, notes to financial statements, and RSI. An actuarial calculation of the total and net pension liability as defined in the accounting standard is included in the notes to financial statements and RSI. Other comprehensive footnote disclosures include the sensitivity of the net pension liability to the discount rate and investment activity disclosures. The total employer's projected net pension liability is presented in the notes to financial statements and is calculated using a discount rate (long-term or blended) depending on the sufficiency of projected net position to cover projected benefit payments of retirees and beneficiaries.

#### **NOTE B - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

#### 5. Investment Valuation

Investments are reported at fair value. Short-term money market investments are reported at cost, which approximates fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. On September 30 or on the last reported bid price if no sale was made on that date, fixed-income securities are valued principally using quoted market prices provided by independent pricing services. For collective investments, fair value is determined and certified by the investment managers as of the reporting date. Hedge funds, limited partnership units, and real estate investment trust are measured at net asset value (NAV). Real estate investments are valued at estimated fair value as determined by the general partner, based upon appraisals provided by the investment manager. Hedge funds and limited partnership units investments are reported at estimated fair value as determined by the general partner of the investment vehicle.

#### 6. Cash and Cash Equivalents

Cash on deposit with Commerce Bank N.A. is maintained for the System by the Treasurer of the City.

#### 7. **Operating Expenses**

Benefits paid and administrative expenses are approved by the Board and paid by the System.

#### 8. Use of Estimates

The preparation of the System's financial statements in conformity with accounting principles generally accepted in the United States of America requires management and the System's actuary to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of additions to and deductions from net position during the reporting period. Actual results could differ from those estimates.

#### 9. Capital Assets

Expenditures for furniture, equipment, and software exceeding \$1,000 are capitalized and depreciated over the estimated useful lives of the capital assets on the straight-line method as follows:

Asset	Years
Furniture, equipment, and software	3 - 10

Expenditures for repairs and maintenance are expensed as incurred. Gains and losses on disposition of capital assets are included in changes in fiduciary net position as realized.

#### NOTE B - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### 9. Capital Assets (Continued)

Capital assets consists of the following:

	September 30		
	2018	2017	
Furniture, equipment, and software - at cost Accumulated depreciation	\$ 694,840 (504,035)	698,897 (455,362)	
Total Capital Assets, Net Of Accumulated Depreciation	<u>\$ 190,805</u>		

Capital assets, net of accumulated depreciation, is summarized by major classification as follows:

	For T	For The Year Ended September 30, 2018				
	Balance			Balance		
	September 30			September 30		
	2017	<b>Increases</b>	<b>Decreases</b>	2018		
Furniture, equipment,						
and software, net	\$ 243,535	9,404	62,134	<u>190,805</u>		

Depreciation expense for the years ended September 30, 2018 and 2017 was \$62,134 and \$61,254, respectively.

#### 10. Staff Pension Plan

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pension, and pension expense, information about the fiduciary net position of the Employees Retirement System of the City of St. Louis (ERS), a cost-sharing, multi-employer defined benefit plan, and additions to/deductions from ERS' fiduciary net position have been determined on the same basis as they are reported by ERS. For this purpose, contributions from employers and net pension liability are recognized on an accrual basis of accounting.

#### 11. Deferred Outflows/Inflows of Resources

In addition to assets, the statements of fiduciary net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element represents a consumption of net position that applies to a future period(s) and so will not be recognized as an outflow of resources (expense/expenditure) until then.

#### **NOTE B - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

#### 11. Deferred Outflows/Inflows of Resources (Continued)

In addition to liabilities, the statements of fiduciary net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (revenue) until that time.

The System currently has deferred inflows and outflows from GASB 68 pension elements from the System's staff participation in ERS which is reported on the statements of fiduciary net position.

#### NOTE C - CASH AND CASH EQUIVALENTS

The System's bank deposits and repurchase agreements are required by state law to be secured by the deposit of certain securities specified by RSMo 30.270. The collateralized securities are held by a trustee institution. The value of the securities must amount to the total of the System's cash not insured by the Federal Deposit Insurance Corporation (FDIC). The System's bank deposits were fully secured or collateralized at September 30, 2018 and 2017. The System's bank deposits and repurchase agreements were insured by the FDIC and collateralized with securities held by the Federal Reserve Bank in the System's name. The repurchase agreements at September 30, 2018 are pledged by a Federal Home Loan Mortgage Pool certificate (maturing May 1, 2033), Federal National Mortgage Association certificate (maturing March 1, 2045), and a Federal Home Loan Bank certificate (maturing August 8, 2031). The repurchase agreements at September 30, 2017 were pledged by a Federal Home Loan Mortgage certificate (maturing Cetober 15, 2032). All pledged collateral securities had an AA+ credit rating level.

Cash and cash equivalents consists of the following:

	September 30			
	2018		2017	
	Bank	Carrying	Bank	Carrying
	Balance	Amount	Balance	Amount
Repurchase agreements	\$ 7,772,788	7,772,788	7,162,216	7,162,216
Bank deposits	745,068	570,089	780,670	576,687
Total	\$ 8,517,856	8,342,877	7,942,886	7,738,903

#### NOTE D - CONTRIBUTIONS RECEIVABLE - EMPLOYER

Contributions receivable - employer consists of the following:

	September 30		
		2018	2017
Current year contributions due from the employer as calculated			
by the System's actuary	\$	33,104,561	33,826,528
Contributions received from the employer during the year		(33,104,561)	(33,826,528)
Total Contributions Receivable - Employer At End Of Year	\$		

Missouri revised State Statutes require the City's contributions to be paid to the System in six equal monthly payments starting on July 1 and ending on December 1, 2018 and 2017, respectively.

#### **NOTE E - INVESTMENTS**

Investments of the System are managed by various investment managers hired by the Board to invest according to investment policy guidelines established by the Board. The fair value of investments managed consisted of the following:

	Septemb	er 30
	 2018	2017
Brandes Investment Partners (international equity - small cap):		
Partnership interest - venture capital	\$ 41,693,652	44,399,100
CenterSquare Investment Management Company (international real estate - equity):		
Real estate securities fund	 16,369,734	15,370,334
Commerce Bank N.A. (fixed income):		
Corporate bonds	47,508,443	51,693,576
Mortgage backed securities	24,247,039	20,157,533
Government securities	12,686,857	12,174,051
Money market fund	1,817,657	777,579
Corporate stocks	1,625,720	1,720,000
	 87,885,716	86,522,739
Crescent Capital Group (opportunistic fixed income):		
Partnership interest - venture capital	 37,522,814	36,809,397
Dover Street IX, L.P. (private equity - fund of funds):		
Partnership interest - venture capital	 8,691,888	3,699,214
ElmTree Net Lease Fund III, L.P. (core real estate - private equity):		
Real estate securities fund	 7,747,059	5,372,261

	Septemb	er 30
	2018	2017
EnTrust Capital Diversified Fund QP, Ltd. (multi-strategy hedge fund): Hedge fund Money market fund	1,074,060	1,109,339 378,936
	1,074,060	1,488,275
EnTrust Special Opportunities Fund III, L.P. (multi-strategy hedge fund of funds): Hedge fund	10,671,248	10,525,992
EnTrust Special Opportunities Fund IV, L.P (hedged equity hedge fund of funds): Partnership interest - venture capital secondary market	2,833,581	
Falcon E&P Opportunities Fund, L.P. (private equity - oil and gas): Partnership interest	5,918,157	5,900,185
GAM U.S. Institutional Diversity, Inc. (multi-strategy hedge fund): Hedge fund	<u> </u>	15,101,224
IFM Global Infrastructure (U.S.), L.P. (private equity - core infrastructure): Partnership interest - venture capital	12,858,850	13,127,498
Kennedy Capital Management, Inc. (domestic mid cap equity - value): Corporate stocks Money market fund	23,968,507 900,504	22,082,566 664,534
Lazard Asset Management, Inc. (international equity - emerging markets): Corporate stocks	<u>24,869,011</u> 42,962,875	22,747,100
MFS Institutional Advisors, Inc. (domestic large cap equity - value): Corporate stocks Money market fund	48,130,940 848,405 48,979,345	45,006,474 604,404 45,610,878
Neuberger Berman Secondary Opportunities Fund III, L.P. (private equity - fund of funds): Partnership interest - venture capital secondary market Money market fund	6,007,102 	6,335,479 162,048 6,497,527
Neuberger Berman U.S. Equity Index PutWrite Fund, LLC (multi-strategy hedge fund): Hedge fund	10,842,576	10,279,348

	Septemb	er 30
	2018	2017
Neumeier Poma Investment Counsel, LLC (domestic small cap equity - value):		
Corporate stocks	23,460,346	22,514,654
Money market fund	4,723,146	2,158,907
	28,183,492	24,673,561
The Northern Trust Company (domestic large cap equity - core and growth):		
Collective investment funds	101,699,896	92,243,115
Money market fund	34,455,885	37,296,173
Corporate stocks	448,532	346,847
	136,604,313	129,886,135
Pacific Investment Management Company (international fixed income):	15 202 010	15 220 (24
Collective investment funds - government securities	15,203,010	15,338,624
Parametric Defensive Equity Fund LLC (private equity - S&P index option based):		
Partnership interest - venture capital	11,251,060	10,336,608
Petrocap Partners II, L.P. (private equity - oil and gas): Partnership interest	7,709,501	5,155,672
Tathership interest	7,707,501	5,155,072
PNC Capital Advisors (domestic small cap equity - growth):		
Corporate stocks	28,063,061	22,501,263
Money market fund	610,485	620,739
5	28,673,546	23,122,002
		, <u>, , , , , , , , , , , , , , , , , , </u>
Principal U.S. Property Account (core real estate - equity):		
Real estate securities fund	42,581,242	39,164,719
Salient Zarvona Energy Fund II-A, L.P. (private equity - oil and gas):		
Partnership interest	8,727,516	6,070,376
Trilogy Global Advisors, LLC (international large cap equity - growth):	40 771 (1)	50 775 977
Collective investment fund	48,771,612	52,775,877
Ullico Infrastructure Taxable Fund, L.P. (private equity - infrastructure/ energy):		
Partnership interest - oil and gas	14,163,791	13,110,715
	<u> </u>	
Wellington Trust Company, N.A. (international large cap equity - value):		
Collective investment fund	49,083,709	49,117,195

	September 30		
	2018	2017	
Westfield Capital Management Company, L.P. (domestic mid cap - growth):			
Corporate stocks	27,640,290	22,429,425	
Money market fund	763,110	803,621	
	28,403,400	23,233,046	
Zarvonia III-A, L.P. (private equity - oil and gas):			
Partnership interest	3,044,722	1,600,000	
Total Investments Managed	789,328,582	768,449,602	
Investment property - real estate	889,624	881,629	
Total Investments	\$ 790,218,206	769,331,231	

Money market funds are invested in Northern Trust's Collective Government Short-term Investment Fund.

The System's investments are continuously exposed to various types of inherent risks. These risks are mitigated by the System's development and continual monitoring of sound investment policies. The maturities, credit rating by investment, and foreign currency exposures by asset class schedules are presented as follows to provide an illustration of the System's current level of exposure to various risks.

The System categorizes its fair value measurements within the fair value hierarchy established by accounting principles generally accepted in the United States of America. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs.

The remaining investments not categorized under the fair value hierarchy are shown at net asset value (NAV). NAV is used as a practical expedient to estimate the fair value of the System's interest therein, unless it is probable that all or a portion of the investment will be sold for an amount different from NAV. As of September 30, 2018, the System had no specific plans or intentions to sell investments at amounts different from NAV.

The inputs and methodologies used for valuing investment securities are not necessarily an indication of the risk associated with investing in those securities.

The System has the following recurring fair value level measurements as of September 30, 2018 and 2017:

		2018				
	Total	Level 1	Level 2	Level 3		
Investments by fair value level:						
Corporate stocks:						
Domestic	\$ 153,337,396	153,337,396	-	-		
International	42,962,875	42,962,875	-	-		
Government bonds, agencies, and						
mortgaged backed securities	36,933,896	-	36,933,896	-		
Corporate bonds:						
Domestic	41,653,557	-	41,653,557	-		
International	5,854,886	-	5,854,886	-		
Collective investment funds:						
Domestic equity	101,699,896	101,699,896	-	-		
International equity	97,855,321	97,855,321	-	-		
Domestic fixed income	15,203,010	-	15,203,010	-		
Money market funds	44,119,192	44,119,192	-	-		
Investment property	889,624		-	889,624		
Total Investments By Fair Value Level	540,509,653	439,974,680	99,645,349	889,624		
Investments measured at net asset value (NAV):						
Limited partnership units:						
Venture capital	120,858,947					
Energy	39,563,687					
Hedge funds	22,587,884					
Real estate investment trust	66,698,035					
Total Investments Measured						
At NAV	249,708,553					
Total Investments Measured						
At Fair Value	\$ 790,218,206					

	2017				
		Total	Level 1	Level 2	Level 3
Investments by fair value level:					
Corporate stocks:					
Domestic	\$	136,601,229	136,601,229	-	-
International		51,414,000	51,414,000	-	-
Government bonds, agencies, and					
mortgaged backed securities		32,331,584	-	32,331,584	-
Corporate bonds:					
Domestic		45,500,907	-	45,500,907	-
International		6,192,669	-	6,192,669	-
Collective investment funds:					
International equity		101,893,072	101,893,072	-	-
Domestic equity		92,243,115	92,243,115	-	-
Domestic fixed income		15,338,624	-	15,338,624	-
Money market funds		43,466,941	43,466,941	-	-
Investment property		881,629			881,629
Total Investments By Fair Value Level		525,863,770	425,618,357	99,363,784	881,629
Investments measured at net asset value (NAV):					
Limited partnership units:					
Venture capital		114,707,296			
Energy		31,836,948			
Hedge funds		37,015,903			
Real estate investment trust		59,907,314			
Total Investments Measured					
At NAV		243,467,461			
Total Investments Measured					
At Fair Value	\$	769,331,231			

For the investments measured at NAV at September 30, 2018 and 2017:

- There were no unfunded purchase commitments.
- Redemption frequency, when currently eligible, is quarterly.
- Notice period for redemptions is 1 to 90 days.

Fair value is defined as the quoted market value on the last trading day of the period. These prices are obtained from various pricing sources by the System's custodian bank. Debt and equity securities held in Collective Trust Funds are held in those funds on behalf of the System and there is no restriction on the use and or liquidation of those assets.

The following schedule provides a summary of the fixed income investment maturities by investment category, which helps demonstrate the current level of interest rate risk assumed by the System:

		Maturities	As Of September	30, 2018	
Fixed Income Investment Categories	Total	Less Than One Year	1 - 5 Years	6 - 10 Years	More Than 10 Years
Corporate bonds	\$ 47,508,443	290,000	20,052,770	13,288,847	13,876,826
Mortgage backed securities: Nongovernment	20,975,116	_	3,929,709	1,249,638	15,795,769
Government	3,271,923	-	-	53,644	3,218,279
Collective investment funds	15,203,010	2,058,773	4,035,598	9,108,639	-
Government securities	 12,686,857	1,606,442	3,419,984	2,944,260	4,716,171
Total	\$ 99,645,349	3,955,215	31,438,061	26,645,028	37,607,045
		Maturities	As Of September (	30, 2017	
Fixed Income		Less Than	1 - 5	6 - 10	More Than
Investment Categories	 Total	One Year	Years	Years	10 Years
Corporate bonds	\$ 51,693,576	825,318	16,512,985	20,226,362	14,128,911
Mortgage backed securities: Nongovernment	17,157,053	-	2,661,242	803,245	13,692,566
Government	3,000,480	1,231	-	36,787	2,962,462
Collective investment funds	15,338,624	4,518,759	6,742,859	862,031	3,214,975
Government securities	 12,174,051	1,009,980	5,180,592	1,795,635	4,187,844
Total	\$ 99,363,784	6,355,288	31,097,678	23,724,060	38,186,758

Certain collective investment funds are classified by average maturities of the portfolios.

The System's fixed income investments current level of exposure to credit risk, or the risk that an issuer or other counterparty to an investment will not fulfill its obligations, is demonstrated by the following table:

## THE POLICE RETIREMENT SYSTEM OF ST. LOUIS NOTES TO FINANCIAL STATEMENTS

#### **NOTE E - INVESTMENTS (Continued)**

			Nongovern-			
			ment	Government	Collective	
Credit			Mortgage	Mortgage	Invest-	Govern-
Rating		Corporate	Backed	Backed	ment	ment
Level	Total	Bonds	Securities	Securities	Funds	Securities
AAA	\$ 13,702,512	1,618,109	5,665,615	3,271,923	-	3,146,86
AA	13,808,698	5,070,368	1,329,442	-	-	7,408,88
A	41,313,167	23,659,660	2,450,497	-	15,203,010	-
BBB	10,587,524	9,790,741	796,783	-	-	-
BB	-	-	-	-	-	-
В	89,547	-	89,547	-	-	-
CCC	-	-	-	-	-	-
CC	-	-	-	-	-	-
D	-	-	-	-	-	-
Not rated	20,143,901	7,369,565	10,643,232	-		2,131,10
Total	\$ 99,645,349	47,508,443	20,975,116	3,271,923	15,203,010	12,686,85
		Credit	Rating As Of September 30, 2	2017		
		Credit	Rating As Of September 30, 2 Nongovern-	2017		
		Credit		2017 Government	Collective	
Credit		Credit	Nongovern- ment Mortgage	Government Mortgage	Collective Invest-	Govern-
Credit Rating		Credit	Nongovern- ment	Government		Govern- ment
	Total		Nongovern- ment Mortgage	Government Mortgage	Invest-	ment
Rating	Total \$ 14,646,329	Corporate	Nongovern- ment Mortgage Backed	Government Mortgage Backed	Invest- ment	ment Securities
Rating Level AAA		Corporate Bonds	Nongovern- ment Mortgage Backed Securities	Government Mortgage Backed Securities	Invest- ment	ment Securities 3,038,24
Rating Level AAA AA	\$ 14,646,329	Corporate Bonds 1,711,022	Nongovern- ment Mortgage Backed Securities 6,896,586	Government Mortgage Backed Securities	Invest- ment Funds	ment Securities 3,038,24
Rating Level AAA AA A	\$ 14,646,329 27,821,715	Corporate Bonds 1,711,022 5,258,303	Nongovern- ment Mortgage Backed Securities 6,896,586 332,448	Government Mortgage Backed Securities	Invest- ment Funds	ment Securities 3,038,24
Rating Level AAA AA A BBB	\$ 14,646,329 27,821,715 30,928,192	Corporate Bonds 1,711,022 5,258,303 28,319,841	Nongovern- ment Mortgage Backed Securities 6,896,586 332,448	Government Mortgage Backed Securities	Invest- ment Funds	ment Securities 3,038,24
Rating Level AAA AA BBB BB	\$ 14,646,329 27,821,715 30,928,192	Corporate Bonds 1,711,022 5,258,303 28,319,841	Nongovern- ment Mortgage Backed Securities 6,896,586 332,448	Government Mortgage Backed Securities	Invest- ment Funds	ment Securities 3,038,24
Rating Level AAA AA BBB BB BB BB CCC	\$ 14,646,329 27,821,715 30,928,192	Corporate Bonds 1,711,022 5,258,303 28,319,841	Nongovern- ment Mortgage Backed Securities 6,896,586 332,448	Government Mortgage Backed Securities	Invest- ment Funds	ment Securities 3,038,24
Rating Level AAA AA BBB BB BB BCCC	\$ 14,646,329 27,821,715 30,928,192 9,668,253	Corporate Bonds 1,711,022 5,258,303 28,319,841	Nongovern- ment Mortgage Backed Securities 6,896,586 332,448 2,608,351 - -	Government Mortgage Backed Securities	Invest- ment Funds	ment Securities 3,038,24
Rating Level AAA AA BBB BB BB CCC CC CC	\$ 14,646,329 27,821,715 30,928,192 9,668,253	Corporate Bonds 1,711,022 5,258,303 28,319,841	Nongovern- ment Mortgage Backed Securities 6,896,586 332,448 2,608,351 - -	Government Mortgage Backed Securities	Invest- ment Funds	ment Securities 3,038,24
Rating Level	\$ 14,646,329 27,821,715 30,928,192 9,668,253 - - 113,108	Corporate Bonds 1,711,022 5,258,303 28,319,841	Nongovern- ment Mortgage Backed Securities 6,896,586 332,448 2,608,351 - - 113,108 -	Government Mortgage Backed Securities	Invest- ment Funds	

Certain collective investment funds are classified by average credit rating levels of the portfolio.

**Foreign Currency Risk** is the risk that changes in exchange rates will adversely impact the fair value of an investment. The System's policy is to allow the individual investment managers to decide what action to take regarding their respective portfolio's foreign currency exposure. The following table demonstrates the System's current level of foreign currency exposure:

		Fixed	Money Market	Hedge	Investment Property And	
Currency	Equities	Income	Funds	Funds	Partnerships	Total
Barbadian Dollar	<b>\$</b> -	299,275	-	-	-	299,275
British Pound Sterling	1,003,729	2,185,754	-	-	-	3,189,483
Canadian Dollar	466,586	1,279,702	-	-	-	1,746,288
Euro	1,173,158	2,976,785	-	-	-	4,149,943
Indian Rupee	918,575	-	-	-	-	918,575
Israeli Shekel	1,553,305	-	-	-	-	1,553,305
Japanese Yen	-	-	-	-	-	-
Norwegian Kron	-	-	-	-	-	-
Swiss Franc	960,111	-	-	-	-	960,111
Taiwan Dollar	763,883	-	-	-	-	763,883
Total Foreign						
Currency	6,839,347	6,741,516	-	-	-	13,580,863
United States Dollar	455,714,176	92,903,833	44,119,192	22,587,884	161,312,258	776,637,343
Total	\$ 462,553,523	99,645,349	44,119,192	22,587,884	161,312,258	790,218,206

Foreign Currency Exposures By Asset Class In U.S. Dollars As Of September 30, 2017

					Investment	
			Money		Property	
		Fixed	Market	Hedge	And	
Currency	Equities	Income	Funds	Funds	Partnerships	Total
	¢	241.060				241.000
Barbadian Dollar	\$ -	341,969	-	-	-	341,969
British Pound Sterling	917,364	2,317,305	-	-	-	3,234,669
Canadian Dollar	266,612	1,363,118	-	-	-	1,629,730
Euro	1,189,771	3,112,121	-	-	-	4,301,892
Indian Rupee	1,155,225	-	-	-	-	1,155,225
Israeli Shekel	1,518,323	-	-	-	-	1,518,323
Japanese Yen	-	-	-	-	-	-
Norwegian Kron	-	-	-	-	-	-
Swiss Franc	1,429,373	-	-	-	-	1,429,373
Taiwan Dollar	529,773	-				529,773
Total Foreign						
Currency	7,006,441	7,134,513	-	-	-	14,140,954
United States Dollar	435,052,289	92,229,271	43,466,941	37,015,903	147,425,873	755,190,277
Total	\$ 442,058,730	99,363,784	43,466,941	37,015,903	147,425,873	769,331,231

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#### **Investments Policies**

**Custodial Credit Risk** is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The fixed income portfolio must have an average rating of "A" or better in the aggregate as measured by at least one credit rating service. In cases where the yield spread adequately compensates for additional risk, securities rated lower than an "A" may be purchased provided overall fixed income quality is maintained. All issues will be of investment grade quality (BBB or Baa rated) or higher at the time of purchase. Up to 15% of the total fair value of fixed income securities may be invested in BBB or Baa rated securities. In cases where credit rating agencies assign different quality ratings a security, the lower rating will be used. Should the rating of a fixed income security fall below minimum investment grade, the Investment Manager may continue to hold the security if they believe the security will be upgraded in the future, there is low risk of default, and buyers will continue to be available throughout the anticipated holding period. The Investment Manager has the responsibility of notifying the Board through their designee whenever an issue falls below investment grade.

**Interest Rate Risk** is the risk that changes in interest rates will adversely affect the fair value of an investment. Investments held for longer periods are subject to increased risk of adverse interest rate changes. The average effective duration of the aggregate portfolio, reflecting all instruments including CMO and Asset-Backed Securities, must be maintained at plus or minus one year of the duration of the respective Investment Manager's benchmark index.

**Concentration of Credit Risk** is the risk of loss attributed to the magnitude of the System's investment in a single issuer.

Asset Class As A Percent Of Total Assets							
Asset Class	<u>Minimum</u>	<u>Target Mix</u>	<u>Maximum</u>				
Fixed income	14%	19	24				
Domestic equities:							
Large cap	13	18	23				
Mid cap	1	6	11				
Small cap	1	6	11				
Foreign equities:							
Developed markets	8	13	18				
Emerging markets	1	6	11				
Non-U.S. small cap markets	1	6	11				
Non-directional hedge funds	-	5	10				
Real estate equities	3	8	13				
Private equity	3	8	13				
Other	-	4	9				
Money market	-	1	6				

It is the System's current policy to invest in each asset class ranging between a minimum and maximum of total System's investments as shown below:

**Long-term Expected Rate of Return** on the System's investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to

produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the System's target asset allocation as of September 30, 2018 are summarized in the following table:

Asset Class	Long-term Expected <u>Real Rate Of Return</u>
Fixed income	1.20%
Domestic equities	4.95
Foreign equities	4.95
Non-directional hedge funds	2.90
Defensive equity	4.15
Real estate (REIT) equities	4.09
Private equity (partnerships)	7.70
Money market	(1.60)

The above long-term expected real rates of return represent best estimates of mathematical rates of return for each major asset class included. These rates of return are shown net of inflation (assumed at 2.5%) and net of investment expenses (assumed at 1% for non-directional hedge funds and real estate asset classes and 0.45% for all other asset classes).

**Liquidity Risk** is the risk that redemption notice periods are required and longer periods may be imposed before payment of redemption proceeds are settled for the following investments:

CenterSquare Investment Management Company/Bank of New York Mellon EB Global Real Estate Securities Fund ElmTree Net Lease Fund III, L.P. EnTrust Capital Diversified Fund QP, Ltd. EnTrust Special Opportunities Fund III, L.P. EnTrust Special Opportunities Fund IV, L.P. Falcon E&P Opportunities Fund, L.P. GAM U.S. Institutional Diversity, Inc. Neuberger Berman Secondary Opportunities Fund III, L.P. Neuberger Berman U.S. Equity Index PutWrite Fund, LLC Principal U.S. Property Account Wellington Trust Company International Opportunities Fund

#### NOTE F - INVESTMENTS GREATER THAN 5% OF NET POSITION - RESTRICTED FOR PEN-SIONS

Investments which exceed 5% or more of net position - restricted for pensions are as follows:

#### NOTE F - INVESTMENTS GREATER THAN 5% OF NET POSITION - RESTRICTED FOR PEN-SIONS (Continued)

	September 30		
		2018	2017
Collective funds:			
MFB Northern Trust Collective Russell 1,000 Growth Index Fund	\$	51,444,501	46,864,632
MFB Northern Trust Company Daily S&P 500 Equity Index Fund		50,255,395	45,378,483
Wellington Trust Company International Opportunities Fund		49,083,709	49,117,195
Trilogy International Group Trust I		48,771,612	52,775,877
Lazard Emerging Markets Core Equity Trust		42,962,875	51,414,000
Principal Real Estate Investment Trust		42,581,242	39,164,719
Brandes Non-U.S. Small Cap Portfolio Fund		41,693,652	44,399,100

#### **NOTE G - CURRENCY FORWARDS**

Currency forwards represent forward foreign exchange contracts that are entered into in order to hedge the exposure to changes in foreign currency rate on the foreign currency dominated portfolio holdings. A forward foreign exchange contract is a commitment to purchase or sell a foreign currency at a future date at a negotiated forward rate. The gain or loss arising from the difference between the original contracts and the closing of such contracts is included in net appreciation (depreciation) in fair value of investments on the System's statements of changes in fiduciary net position. The net unrealized gains (losses) is included in the System's statements of fiduciary net position in unsettled investment transactions. Pending foreign exchange contracts were as follows:

		Septemb	er 30	
	2018	3	201	7
	 Fair		Fair	
	 Value	Cost	Value	Cost
Pending currency forwards purchases:				
United States dollar	\$ 24,432,514	24,432,514	26,003,834	26,003,834
Foreign currency	-	-	157,891	158,061
Pending currency forwards sales:				
United States dollar	-	-	158,061	158,061
Foreign currency	24,200,346	24,432,514	26,033,632	26,003,834

Net realized and unrealized gains (losses) were as follows:

	For The Years		
	Ended September 30		
	2018	2017	
Net realized losses	\$ (746,989)	(92,053)	
Net unrealized gains (losses)	(232,168)	29,968	

#### **NOTE H - FUNDING POLICY CONTRIBUTIONS**

Funding policy contributions for the System are calculated using the aggregate actuarial cost method, and as a result, the System does not have an unfunded actuarial accrued liability amortization payment.

Actuarially determined funding policy contributions requirements are as shown in the following table:

		e Years otember 30	Covered Pa Percenta	U
	2018	2017	2018	2017
Employer's annual required contributions: Portion of normal cost attributable to the System's fiscal years	\$ 33,646,036	31,540,630	43.9 %	41.4
Employer's Funding Policy Contributions Made	\$ 33,104,561	33,826,528	43.2 %	44.4
Members' Contributions Made	\$ 4,600,917	4,456,241	6.0 %	5.9

The covered payroll of active participants (including DROP participants) per the actuarial valuation amounted to \$76,710,452 and \$76,141,625 for the years ended September 30, 2018 and 2017, respectively.

**Funding Policy Contribution (FPC)** - The FPC is calculated using the aggregate actuarial cost method. The FPC applicable to the System's fiscal year ended September 30 each year in accordance with GASB 25 requires blending of the actuarial valuations. The FPC is presented each year using the aggregate of the City's FPCs for the portions of the City's fiscal year that overlap the System's fiscal year.

#### NOTE I - FUNDING STATUS AND PROGRESS - AGGREGATE ACTUARIAL COST METHOD

The System uses the aggregate actuarial cost method for funding requirements. A summary of the actuarial computations under the aggregate actuarial cost method is as follows:

	Actuarial Valuation October 1		
	2018	2017	
Present value of all future benefits Actuarial value of assets, including present value of	\$ 1,122,301,357	1,075,932,180	
future Members' contributions	831,007,402	810,155,971	
Present Value Of Future Normal Contributions Due From The City	<u>\$ 291,293,955</u>	265,776,209	

Actuarial value of assets was calculated assuming the City will continue to fund the actuarially determined contributions in future fiscal years.

#### NOTE J - NET PENSION LIABILITY - ENTRY AGE NORMAL ACTUARIAL COST METHOD

The components of the net pension liability (the System's liability determined in accordance with GASB 67 less the fiduciary net position) as of September 30, 2018 and 2017, are shown in the schedules of employer's net pension liability below.

Actuarial valuation of an ongoing plan involves estimates of the reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment mortality and future salary increases. Amounts determined regarding the net pension liability are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The schedules of changes in net pension liability presents multi-year trend information about whether the System's fiduciary net position is increasing or decreasing over time relative to the total pension liability. These schedules are presented in the RSI. The total pension liability as of September 30, 2018 and 2017 are based on actuarial valuations performed as of September 30, 2017 and 2016, and projected to September 30, 2018 and 2017, using generally accepted actuarial procedures.

#### **Schedules of Net Pension Liability**

	September 30		
	2018	2017	
Total pension liability	\$ 1,010,912,526	1,058,652,529	
System's fiduciary net position	796,160,410	776,579,478	
Net Pension Liability	<u>\$ 214,752,116</u>	282,073,051	
System's Fiduciary Net Position as a Percentage			
of Total Pension Liability	78.8%	73.4	
Covered Payroll (including DROP participants)	\$ 76,710,452	76,141,625	
Net Pension Liability as a Percentage of Covered Payroll	280.0%	370.5	

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

	1% Decrease	Current Discount Rate Assumption	<u>1% Increase</u>
GASB 67 blended discount rate	6.24%	7.24	8.24
Total pension liability	\$ 1,119,875,794	1,010,912,526	920,379,211
Net pension liability System's fiduciary net position as a	\$ 323,715,384	214,752,116	124,218,801
percentage of total pension liability	71.1%	78.8	86.5

# NOTE J - NET PENSION LIABILITY - ENTRY AGE NORMAL ACTUARIAL COST METHOD (Continued)

#### Discount Rate Used to Calculate the Present Value of Future Benefit Payments

The blended discount rate used to measure the total pension liability was 7.24%. The projection of cash flows used to determine the discount rate assumed that employer's contributions will continue to follow the current funding policy. Based on those assumptions, the System's net position was projected to be insufficient to make all projected future benefit payments of current plan Members and beneficiaries after 2066. A municipal bond rate of 4.18% was used in the development of the blended GASB discount rate after that point. The 4.18% rate is based on the Bond Buyer General Obligation 20 Year High Grade Rate Municipal Bond Index (AA/Aa or higher). Based on the System's long-term investment rate of return of 7.5% and the municipal bond rate of 4.18%, the blended GASB discount rate is 7.24%.

A similar calculation was made as of September 30, 2017 using a blend of the assumed long-term expected rate of return of 7.5% and a municipal bond index rate of 3.64%. This calculation resulted in a blended discount rate of 6.67%.

## Methods and assumptions used in calculations of actuarially determined contributions and pension liability

October 1, 2018 and 2017
Entry Age Normal
Aggregate, reduced by employee contributions
None - Aggregate is funded over the future working
lifetime of current participants
5-year smoothed market
7.5% net of 0.15% administrative expenses
2018 - 4.18% and 2017 - 3.64%
Varies by age 3% to 6.5%, including merit and promotions
2.5%
RP-2014 Blue collar projected generationally with MP-2015
with 1.15 adjustment
0.03% per year for all ages in addition to ordinary mortality
RP-2014 disabled retiree projected generationally with MP-2015
with 0.9 adjustment male and no adjustment female

#### **Covered Payroll**

The definition of covered payroll was changed by GASB 82 issued March 2016. Covered payroll is the payroll on which contributions to the System are based.

#### NOTE K - SYSTEM EMPLOYEES AND POST-RETIREMENT BENEFITS

Current System employees are reimbursed up to \$1,000 per year for validated claims for vision and dental costs. Reimbursed health care benefits totaled \$6,773 and \$5,557 for the years ended September 30, 2018 and 2017, respectively.

The System provides post-retirement health care benefits to all employees and their spouses who were employed as of February 26, 1992 and who retired from the System on or after attaining age 65. Those who are insured by another entity do not qualify for this benefit. Currently, one retiree qualifies to receive post-retirement benefits.

The System pays the premiums of retired System employees for the Medicare Supplemental Insurance Program. The System also reimburses retired System employees up to \$1,000 per year for validated claims for vision and dental costs. Expenditures for post-retirement health care benefits are recognized as the premiums are paid or as retirees report claims. Due to only one eligible retiree and the limited exposure, no provision for estimated claims incurred but not yet reported has been made. Expenditures for post-retirement health care were \$4,867 and \$4,861 for the years ended September 30, 2018 and 2017, respectively.

#### NOTE L - SYSTEM EMPLOYEES' PENSION PLAN

#### **General Information about the Pension Plan**

#### **Plan Description**

All full-time staff at the System are provided with pension benefits through the ERS, a cost-sharing, multipleemployer defined benefit pension plan.

#### **Benefits Provided**

ERS provides for defined benefit payments for retirement, death, or disability to eligible employees or their beneficiaries based upon creditable service, final average compensation, and a benefit compensation base. Employees retire with full retirement benefits after the age of 65 or if an employee's age and creditable service combined equal or exceed 85 years. Employees may retire and receive a reduced benefit after age 60 with five years of creditable service, age 55 with at least 20 years of creditable service, or any age with 30 years of creditable service. The monthly pension benefits of all retirees or their beneficiaries are adjusted according to the changes in the Consumer Price Index of the U.S. Department of Labor. Increases are limited each year, with total increases to retirees or their beneficiaries limited to 25%.

#### **Contributions**

Employer contribution rates are established annually by the Board of Trustees of ERS based on an actuarial study. The Board of Trustees established the required employer contribution rates, based on active employees payroll as follows:

## NOTE L - SYSTEM EMPLOYEES' PENSION PLAN (Continued)

## Service Period

#### **Contribution Rate**

July 2018 to current	12.36%
July 2017 to June 2018	12.22
July 2016 to June 2017	12.51

Contributions to ERS from the System were \$55,576 and \$51,512 for the years ended September 30, 2018 and 2017, respectively. The System pays 50% of these contributions and the City pays the other 50%.

Employees who became members of ERS prior to October 14, 1977 and continued to make contributions may make voluntary contributions to ERS equal to 3% of their compensation until the compensation equals the maximum annual taxable earnings under the Federal Social Security Act. Thereafter, employees may contribute 6% of their compensation for the remainder of the calendar year.

### Net Pension Expense

Net pension expense is the sum of changes in the net pension liability and deferred inflows and outflows of resources. For fiscal years 2018 and 2017, the System's net pension expense was calculated as follows:

	For The Years Ended September 30		
	2	2018	2017
System's 50% share of employer contributions	\$	27,788	25,756
Increase (decrease) in net pension liability	(	(85,562)	3,498
Increase (decrease) in deferred inflows of resources		12,545	(4,202)
Decrease in deferred outflows of resources		66,926	19,942
Net Pension Expense	\$	21,697	44,994

# Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

The net pension liability was measured as of the beginning of the System's fiscal years September 30, 2017 and 2016, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The System had a liability of \$248,006 (or 0.14%) and \$333,568 (or 0.16%) for its proportionate share of the ERS' net pension liability for the years ended September 30, 2018 and 2017, respectively. The System's proportionate share of the net pension liability was based on a projection of the System's long-term share of contributions to ERS relative to the projected contributions of all the participating employers, actuarially determined.

## NOTE L - SYSTEM EMPLOYEES' PENSION PLAN (Continued)

The actuarially determined deferred outflows of resources and deferred inflows of resources related to ERS were from the following sources:

		For The Year September 30	
	Outflow	vs Inflows	Net Outflows
Fiscal year 2018 paid contributions - System's 50%	\$ 27,78	88 -	27,788
Net difference between expected and actual experience	-	(5,875)	(5,875)
Net difference between projected and actual investment			
earnings on ERS' investments	2,6	99 -	2,699
Net impact from changes in proportion allocation			
between the participating employers	7,92	25 (19,521)	(11,596)
Total	\$ 38,4	12 (25,396)	13,016

		For The Years	s Ending Sept	tember 30	
	<u>Total</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	2022
Deferred outflows (inflows)					
future recognition	\$ 13,016	32,324	1,689	(12,347)	(8,650)

				or The Year Er eptember 30, 2	
			Outflows	Inflows	Net Outflows
Fiscal year 2017 paid contributions - System's 50%			\$ 25,756	-	25,756
Net difference between expected		xperience	-	(6,724)	(6,724)
Net difference from assumption changes Net difference between projected and actual investment			-	(2,714)	(2,714)
earnings on ERS' investments			62,658	-	62,658
Net impact from changes in probetween the participating em		tion	16,924	(3,413)	13,511
Total			\$ 105,338	(12,851)	92,487
		For The Y	ears Ending Se	eptember 30	
	Total	<u>2018</u>	<u>2019</u>	2020	<u>2021</u>
Deferred outflows (inflows) future recognition	\$ 92,487	44,829	27,022	24,765	5 (4,129)

## NOTE L - SYSTEM EMPLOYEES' PENSION PLAN (Continued)

## **Actuarial Assumptions**

The total pension liability in the September 30, 2017, actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Salary increases	3% plus merit component based on employee's years of service
Investment rate of return	7.5%, net of pension plan investment expense
Mortality rates - ordinary	RP-2000 healthy mortality 3 year set-forward with generational
	projections using scale AA
Mortality rates - disability	RP-2000 disabled mortality 3 year set-forward with generational
	projections using scale AA

## **Discount Rate**

The discount rate used to measure the total pension liability was 7.5%. The projection of cash flows used to determine the discount rate assumed that contributions will continue to follow the current funding policy. Based on those assumptions, the ERS's fiduciary net position was projected to be sufficient to make all projected future benefits payments of current plan employees and their beneficiaries.

# Sensitivity of the System's Proportionate Share of the Net Pension Liability to Changes in the Discount Rate

The following presents the System's proportionate share of the net pension liability calculated using the discount rate of 7.5%, as well as what the System's proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1% point lower (6.5%) or 1% point higher (8.5%) than the current rate:

		Current Discount Rate	
	1% Decrease	Assumption	1% Increase
Discount rate	6.5 %	7.5	8.5
Net pension liability	\$ 389,256	248,006	127,157

Detailed information about the ERS' fiduciary net position is available in the separately issued ERS' financial report.

## **NOTE M - SECURITIES LENDING**

The System participated in The Northern Trust Company's (NTC) securities lending program in order to enhance the investment yield. In a securities lending transaction, the System transfers possession--but not title--of the security to the borrower. Collateral consisting of cash, letter of credit, or government securities is received and held by NTC. The broker/dealer collateralizes their borrowing (usually in cash) to 102% of the security

## **NOTE M - SECURITIES LENDING (Continued)**

value plus accrued interest and this collateral is adjusted daily to maintain the 102% level. The collateral is increased to 105% if the borrowed securities and collateral are denominated in a foreign currency. The System maintains all the rights in the collateral of a secured lender under the Uniform Commercial Code. The System continues to earn income on the loaned security. In addition, the System receives 70% of the net lending fees generated by each loan of securities. NTC receives the remaining 30% of the net lending fees as compensation for its services provided in the securities lending program. NTC indemnifies operational risk and counter party risk. The System authorizes the lending and loans of the following: domestic securities, U.S. Treasuries, corporate bonds, and equities. The System does not have the ability to pledge or sell collateral securities without borrower default. Therefore, for accounting purposes, the statements of fiduciary net position and changes in fiduciary net position do not reflect an increase in assets or liabilities associated with securities lent.

At September 30, 2018 and 2017, outstanding loans to borrowers were \$44,312,583 and \$51,097,071, respectively. The System earned income of \$134,112 and \$219,904 for its participation in the securities lending program for the years ended September 30, 2018 and 2017, respectively.

## NOTE N - RISK MANAGEMENT

The System is exposed to various risks of loss related to natural disasters; errors and omissions; and/or loss of assets, torts, etc. The System has chosen to cover such losses through the purchase of commercial insurance. There have been no material insurance claims filed or paid during the past three years.

## **NOTE O - RELATED PARTY TRANSACTIONS**

The System owed the City \$70,588 and \$65,376 at September 30, 2018 and 2017, respectively, for personnel costs (salaries, payroll taxes, payroll processing, and employee fringe benefits for System employees). The System reimburses 50% of personnel costs, plus actual directly allocated expenses. The total of these items and the System's expense for the years ended September 30, 2018 and 2017, was \$287,565 and \$261,815, respectively.

## NOTE P - COMMITMENTS AND CONTINGENCIES

The System was committed to the future settlement of investments purchased (accounted for by trade date) at September 30, 2018 and 2017, of \$2,322,850 and \$340,365, respectively. These amounts are reflected in the statements of fiduciary net position as a liability for unsettled investment transactions.

## NOTE Q - RISKS AND UNCERTAINTIES

The System invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market, foreign currency, regulatory, 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 that such changes could materially affect the amounts reported in the statements of fiduciary net position.

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 estimations and assumptions 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 R - RATE OF RETURN

For the years ended September 30, 2018 and 2017, the annual money-weighted rate of return on the System's investments, net of investment expenses, was 7.56% and 13.09%, respectively. The money-weighted rate of return expresses investment performance, net of investment expenses, adjusted for the changing amounts actually invested.

## NOTE S - DETERMINATION LETTER

The System has received a favorable determination letter dated March 12, 2014 from the Internal Revenue Service (IRS) stating that the System is qualified as a government plan under Section 414(d) of the Internal Revenue Code (the Code) and, therefore, the related trust is exempt from taxation. Once qualified, the System is required to operate in conformity with the Code to maintain its qualification.

## **NOTE T - SUBSEQUENT EVENTS**

The System has performed an evaluation of subsequent events through February 6, 2019, the date the basic financial statements were available to be issued. No material events were identified by the System.

## **REQUIRED SUPPLEMENTAL INFORMATION SECTION**

#### THE POLICE RETIREMENT SYSTEM OF ST. LOUIS REQUIRED SUPPLEMENTAL INFORMATION -GASB STATEMENT NO. 67 PENSION ELEMENTS - SYSTEM RELATED

#### SCHEDULES OF CHANGES IN NET PENSION LIABILITY

		For The Y	ears Ended September	30	
	2018	2017	2016	2015	2014
Discount Rate Assumption	7.24 %	6.67 %	6.19 %	7.29 %	7.48 %
Total Pension Liability (A)					
Service cost	\$ 16,369,318	17,988,134	12,617,971	12,977,679	12,991,999
Interest on total pension liability, including service cost	68,899,130	66,042,714	67,036,489	66,579,275	65,906,383
Benefit changes	-	-	-	-	-
Differences between expected and actual experience	(4,886,531)	3,911,067	(3,684,265)	(2,041,444)	- (B)
Assumption changes	(59,545,809)	(55,153,649)	131,846,504	16,248,637	6,650,362
Benefit payments	(63,603,561)	(59,959,184)	(59,673,662)	(67,107,828)	(58,302,794)
Refunds of Members' contributions	(4,972,550)	(3,493,396)	(2,963,770)	(2,425,249)	(2,670,671)
Net Change In Total Pension Liability	(47,740,003)	(30,664,314)	145,179,267	24,231,070	24,575,279
Total Pension Liability Beginning	1,058,652,529	1,089,316,843	944,137,576	919,906,506	895,331,227
Total Pension Liability Ending (a)	\$ 1,010,912,526	1,058,652,529	1,089,316,843	944,137,576	919,906,506
System Fiduciary Net Position					
Contributions - Employer	\$ 33,104,561	33,826,528	30,778,664	30,600,069	32,324,823
Contributions - Members	5,129,154	4,653,968	4,376,867	4,487,942	4,438,346
Net investment income (loss)	51,089,258	93,520,079	52,927,643	(8,325,611)	48,094,636
Benefit payments	(63,603,561)	(59,959,184)	(59,673,662)	(67,107,828)	(58,302,794)
Refunds of Members' contributions	(4,972,550)	(3,493,396)	(2,963,770)	(2,425,249)	(2,670,671)
Administrative expenses	(1,165,930)	(1,206,161)	(1,102,866)	(1,125,310)	(1,095,653)
Net Change In System Fiduciary Net Position	19,580,932	67,341,834	24,342,876	(43,895,987)	22,788,687
System Fiduciary Net Position Beginning	776,579,478	709,237,644	684,894,768	728,790,755 (C)	706,276,668
System Fiduciary Net Position Ending (b)	\$ 796,160,410	776,579,478	709,237,644	684,894,768	729,065,355
Net Pension Liability Ending (a-b)	\$ 214,752,116	282,073,051	380,079,199	259,242,808	190,841,151

#### Notes:

(A) The total pension liability as of the end of each measurement year is measured as of the measurement date (October 1) at the beginning of each year and projected to the end of each year.

(B) Because the beginning and ending values are based on the same actuarial valuation (September 30, 2013) and there were no significant events, no liability gains or losses due to experience are reported for the year ended September 30, 2014.

(C) The September 30, 2014 System fiduciary net position was restated (decreased) by \$274,600 from recording the beginning net pension liability resulting from implementing GASB 68 for the System's staff participation in ERS during the year ended September 30, 2015.

## THE POLICE RETIREMENT SYSTEM OF ST. LOUIS REQUIRED SUPPLEMENTAL INFORMATION -

#### \_GASB STATEMENT NO. 67 PENSION ELEMENTS - SYSTEM RELATED

#### SCHEDULES OF NET PENSION LIABILITY AND RELATED RATIOS

	September 30						
		2018	2017	2016	2015	2014	2013
Total pension liability System fiduciary net position	\$	1,010,912,526 796,160,410	1,058,652,529 776,579,478	1,089,316,843 709,237,644	944,137,576 684,894,768	919,906,506 729,065,355	895,331,227 706,276,668
Net Pension Liability	\$	214,752,116	282,073,051	380,079,199	259,242,808	190,841,151	189,054,559
System Fiduciary Net Position as a Percentage of the Total Pension Liability		78.8 %	73.4	65.1	72.5	79.3	78.9
Covered Payroll (including DROP participants)	\$	76,710,452	76,141,625	72,684,487	72,325,153	72,151,450	N/A
Net Pension Liability as a Percentage of Covered Payroll		280.0 %	370.5	522.9	358.4	264.5	N/A

## THE POLICE RETIREMENT SYSTEM OF ST. LOUIS REQUIRED SUPPLEMENTAL INFORMATION -GASB STATEMENT NO. 67 PENSION ELEMENTS - SYSTEM RELATED

## SCHEDULES OF EMPLOYER'S CONTRIBUTIONS

	For The Years Ended September 30					
	2018	2017	2016	2015	2014	2013
Employer actuarially determined contributions Contributions in relation to the actuarially	\$ 33,104,561	33,826,528	30,778,664	30,600,069	32,324,823	32,629,036
determined contribution	(33,104,561)	(33,826,528)	(30,778,664)	(30,600,069)	(32,324,823)	(32,629,036)
Contribution Deficiency (Excess)	<u>\$</u> -					
Covered Payroll (including DROP participants)	\$ 76,710,452	76,141,625	72,684,487	72,325,153	72,151,450	N/A
Contributions as a Percentage of Covered Payroll	43.2 %	44.4	42.3	42.3	44.8	N/A

## THE POLICE RETIREMENT SYSTEM OF ST. LOUIS REQUIRED SUPPLEMENTAL INFORMATION -GASB STATEMENT NO. 67 PENSION ELEMENTS - SYSTEM RELATED

## SCHEDULES OF ANNUAL MONEY-WEIGHTED RATE OF RETURN ON INVESTMENTS

	For The Years Ended September 30					
	2018	2017	2016	2015	2014	2013
	7.56.04	12.00	7.05	(1, 1, 4)	7.00	11.00
Annual money-weighted rate of return, net of investment expenses	7.56 %	13.09	7.85	(1.14)	7.08	11.90

#### NOTES TO REQUIRED SUPPLEMENTAL INFORMATION FOR THE YEAR ENDED SEPTEMBER 30, 2018

#### 1. Changes in Benefit Terms

Changes in benefit terms must be enacted by the General Assembly of the State of Missouri. There were no changes in benefits during the year ended September 30, 2018.

#### 2. Changes in Actuarial Assumptions

The blended discount rate of 7.24% (previously 6.67%) was used to measure the total pension liability for the year ended September 30, 2018. This change resulted in a decrease of approximately \$59 million to total pension liability.

#### 3. Changes in Actuarial Method

None

#### 4. Method and Assumptions used in Calculations of Actuarially Determined Contributions

The actuarially determined employer's contributions were calculated as of the September 30 preceding the fiscal year in which contributions are made. That is, the contributions calculated as of the September 30, 2017 actuarial valuation was made during the fiscal year ended September 30, 2018. The following actuarial methods and assumptions were used to determine contribution rates reported in the schedules of employer's contributions (schedule):

Actuarial methods:	
Valuation date	October 1, 2018 and 2017
Actuarial cost method:	
GASB reporting	Entry Age Normal
Funding requirements	Aggregate, reduced by employee contributions
Amortization method/period	None - Aggregate is funded over the future working lifetime of current participants
Asset valuation method	5-year smoothed market
Actuarial assumptions:	
Investment rate of return	7.5% net of 0.15% administrative expenses
Long-term municipal bond rate	2018 - 4.18% and 2017 - 3.64%
Rate of payroll growth	Varies by age 3% to 6.5%, including merit and promotions
Consumer price inflation	2.5%
Mortality (ordinary)	RP-2014 Blue collar projected generationally with MP-2015 with 1.15 adjustment
Mortality (accidental)	0.03% per year for all ages in addition to ordinary mortality
Mortality (disabled)	RP-2014 disabled retiree projected generationally with MP-2015 with 0.9 adjust-
	with 0.9 adjustment male and no adjustment female

#### 5. GASB 67 Ten-year Required Supplemental Schedules

Required supplemental schedules are required to present 10 years of information. However, the information in the schedules are not required to be presented retroactively. Years will be added to these schedules in future fiscal years until 10 years of information is presented.

#### 6. Money-weighted Rate of Return

The annual money-weighted rate of return is computed assuming investment yield is received at end of each month and on the actual or approximate date of contributions, benefit payments, and expenses.

### THE POLICE RETIREMENT SYSTEM OF ST. LOUIS REQUIRED SUPPLEMENTAL INFORMATION -GASB STATEMENT NO. 67 PENSION ELEMENTS - SYSTEM RELATED

### NOTES TO REQUIRED SUPPLEMENTAL INFORMATION FOR THE YEAR ENDED SEPTEMBER 30, 2018 (Continued)

#### 7. Discount Rate used to Calculate the Present Value of Future Benefits

The discount rate used to calculate the present value of future benefit payments for reporting purposes is based upon the projected fiduciary net position using actuarial assumptions about contributions, benefit payments, and the long-term rate of return. If the projected fiduciary net position is not sufficient to cover projected benefit payments, a blended discount rate is required using both the weighted average of the long-term rate of return and the high grade bond muni-bond rate for periods after the fiduciary net position is exhausted. The System currently uses the long-term discount rate of 7.5% and expects assets will be sufficient to cover fiduciary net position until 2066. The muni-bond rate used in the valuation was 4.18% and is based on the Bond Buyers General Obligation 20 Year High Grade Rate Municipal Bond Index (AA/Aa or higher). Since the fiduciary net position was projected to be insufficient to make all projected benefit payments of current System Members and beneficiaries, a blended discount rate of 7.24% was used to calculate the System's present value of future benefit payments.

#### 8. Covered Payroll

The covered payroll for active Members is the payroll on which contributions to the System are based.

## THE POLICE RETIREMENT SYSTEM OF ST. LOUIS REQUIRED SUPPLEMENTAL INFORMATION -GASB STATEMENT NO. 68 PENSION ELEMENTS -SYSTEM STAFF PENSION RELATED

## SCHEDULES OF THE SYSTEM'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY OF THE EMPLOYEES RETIREMENT SYSTEM OF THE CITY OF ST. LOUIS (ERS), A COST-SHARING, MULTI-EMPLOYER DEFINED BENEFIT PENSION PLAN

	September 30					
	2018	2017	2016	2015		
Proportionate Share of the Employer's Contributions	0.14 %	0.16	0.15	0.14		
Proportionate Share of the Collective Net Pension Liability	\$ 248,006	333,568	330,070	221,645		
Covered Payroll	\$ 341,892	378,373	348,595	343,651		
Proportionate Share of the Collective Net Pension Liability as a Percentage of its Covered Payroll	72.54 %	88.16	94.69	64.50		
ERS' Fiduciary Net Position as a Percentage of the Total Pension Liability	82.46 %	78.52	76.22	83.47		

Notes:

- (A) The System elected to report pension elements using the beginning of the year actuarial valuation as allowed by GASB 68. Therefore, the amounts presented were determined as of the ERS' fiscal years ended September 30, 2017, 2016, 2015, and 2014 actuarial valuations and projected to the end of the years.
- (B) The System implemented GASB 68 for the fiscal year ended September 30, 2015. Years will be added to this schedule in future fiscal years until 10 years of information is provided.

# SCHEDULES OF THE SYSTEM'S CONTRIBUTIONS TO THE EMPLOYEES RETIREMENT SYSTEM OF THE CITY OF ST. LOUIS (ERS), A COST-SHARING, MULTI-EMPLOYER DEFINED BENEFIT PENSION PLAN

	For The Years Ended September 30					
	2018	2017	2016	2015		
Contractually required contribution Contributions in relation to the contractually required contribution	\$ 42,519 (42,519)	51,217 (51,217)	51,498 (51,498)	52,740 (52,740)		
Contribution Deficiency (Excess)	<u>\$ -</u>	<u> </u>	<u> </u>			
Covered Payroll	\$ 341,892	378,373	348,595	343,651		
Contributions as a Percentage of Covered Payroll	12.44 %	13.54	14.77	15.35		

#### Notes to schedule:

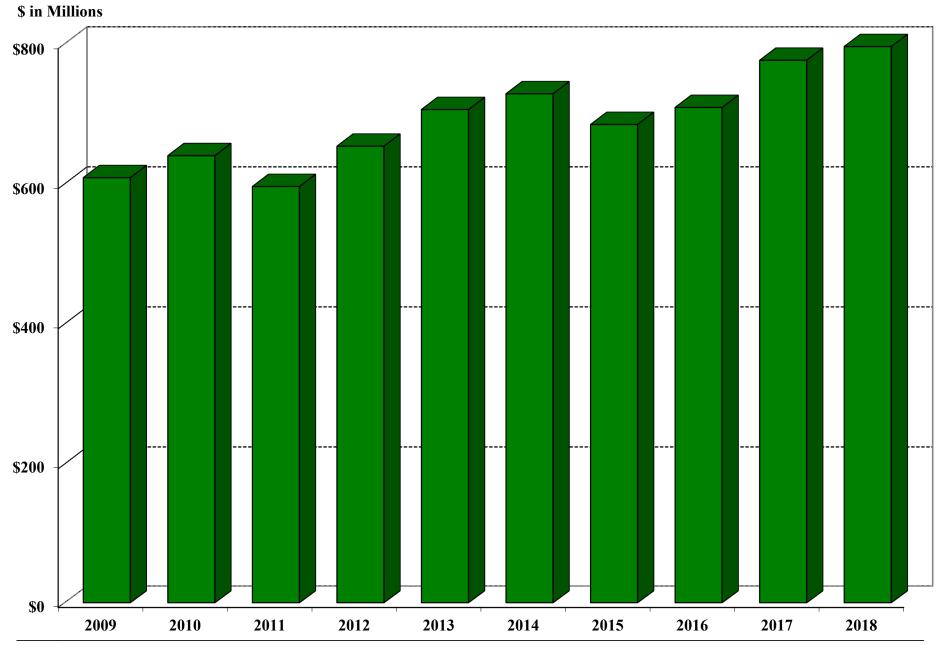
Valuation date	Actuarially determined contributions are calculated as of October 1, 2014 through 2017
Methods and assumptions used	
to determine contribution rates:	
Actuarial cost method	Entry age normal cost method
Amortization method - 2017	Fixed 20 year period as of October 1, 2015 as a level percentage of payroll
Amortization method - 2016 and 2015	Rolling 30-year level dollar amortization of unfunded liability
Asset valuation method	5-year smoothing
Inflation	2017 and 2016 - 2.5% and 2015 - 3.125%
Salary increases - 2017	3% plus merit component based on employee's years of service
Salary increases - 2016 and 2015	3.5% plus merit component based on employee's years of service
Investment rate of return	2017 and 2016 - 7.5% and 2015 - 8%, net of pension plan investment expenses
Mortality rates - ordinary - 2017 and 2016	RP-2000 healthy mortality 3 year set-forward with generational
	projections using scale AA
Mortality rates - ordinary - 2015	1994 Group Annuity Mortality Table
Mortality rates - disability - 2017 and 2016	RP-2000 disabled mortality 3 year set-forward with generational
	projections using scale AA
Mortality rates - disability - 2015	1953 Railroad Retirement Board disabled life mortality table

#### Notes:

- (A) The System elected to report pension elements using the beginning of the year actuarial valuation as allowed by GASB 68. Therefore, the amounts presented were determined as of the ERS' fiscal years ended September 30, 2014 through 2017 actuarial valuations and projected to the end of the years.
- (B) The System implemented GASB 68 for the fiscal year ended September 30, 2015. Years will be added to this schedule in future fiscal years until 10 years of information is provided.

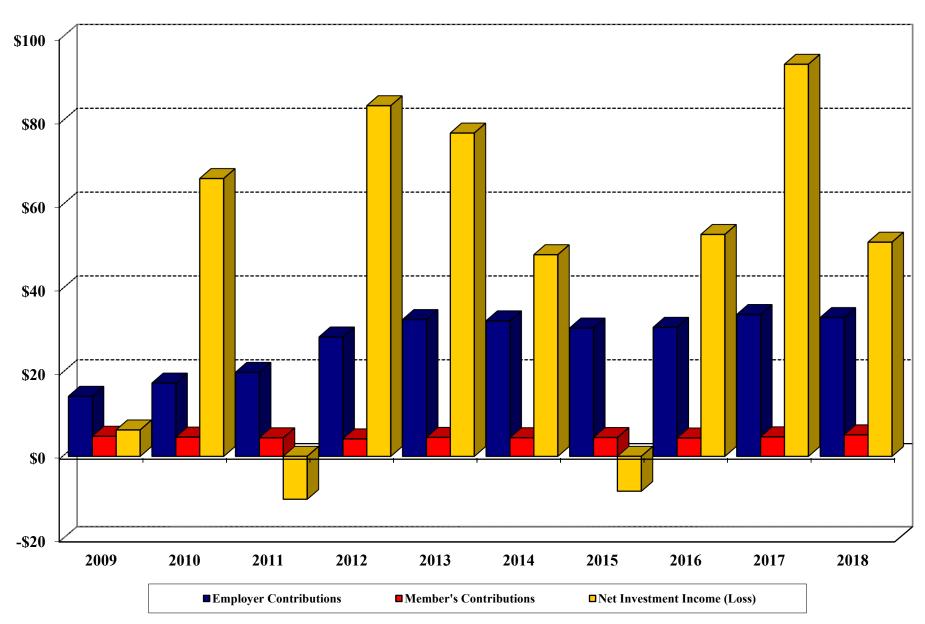
## **OTHER SUPPLEMENTAL INFORMATION SECTION**

## THE POLICE RETIREMENT SYSTEM OF ST. LOUIS NET POSITION SEPTEMBER 30



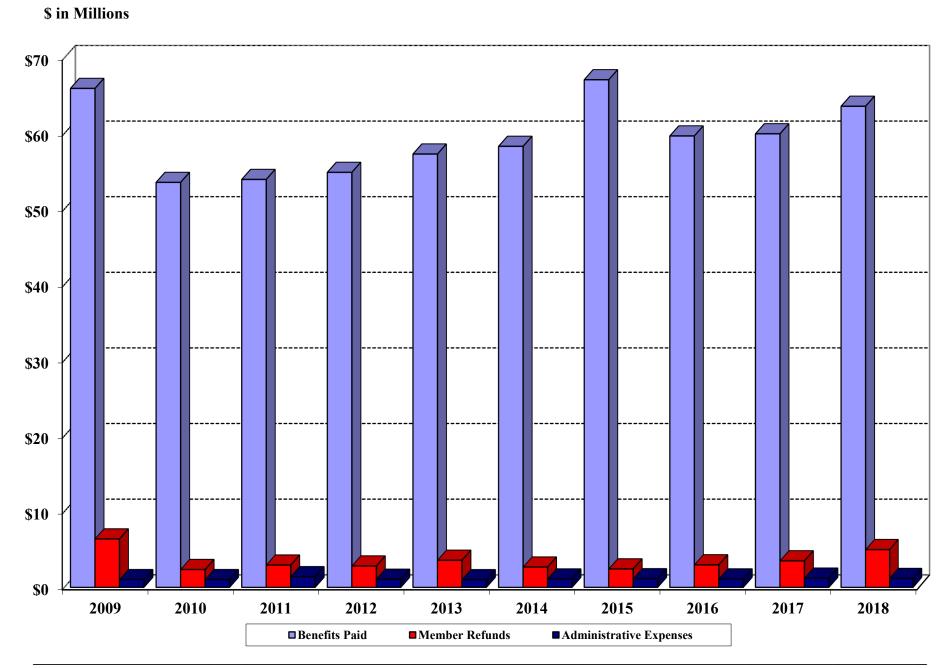
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## THE POLICE RETIREMENT SYSTEM OF ST. LOUIS ADDITIONS TO NET POSITION FOR THE YEARS ENDED SEPTEMBER 30

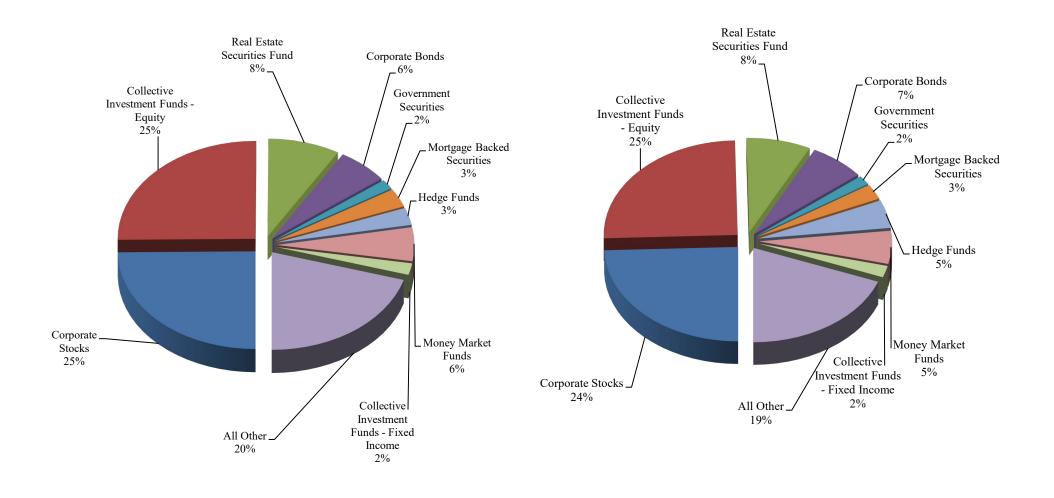


## \$ in Millions

## THE POLICE RETIREMENT SYSTEM OF ST. LOUIS DEDUCTIONS FROM NET POSITION FOR THE YEARS ENDED SEPTEMBER 30



## THE POLICE RETIREMENT SYSTEM OF ST. LOUIS INVESTMENTS



September 30, 2018

September 30, 2017

## THE POLICE RETIREMENT SYSTEM OF ST. LOUIS OTHER SUPPLEMENTAL INFORMATION

	For The Years		
	Ended September		
	2018	2017	
BENEFITS PAID TO RETIREES AND BENEFICIARIES			
Monthly annuity:			
Accidental disability and death	\$ 4,443,786	4,307,168	
Advisor fees	2,229,610	2,167,450	
Consultant fees	2,087,425	2,103,231	
Dependents monthly benefits	5,055,866	5,102,071	
Medical, surgical, and hospital	70,564	117,010	
Ordinary disability	408,510	279,163	
Service retirees	43,646,432	42,771,410	
Total Monthly Annuity	57,942,193	56,847,503	
Lump sum:			
Accidental disability and death	239,609	33,347	
Drop	5,421,759	3,078,334	
Total Lump Sum	5,661,368	3,111,681	
Total Benefits Paid To Retirees And Beneficiaries	\$ 63,603,561	59,959,184	
ADMINISTRATIVE EXPENSES Personnel costs:			
Salaries	\$ 195,410	179,982	
Payroll taxes	14,497	13,283	
Insurance - workers compensation	2,892	2,160	
Employee benefits:	22.121	10.026	
Group medical and life insurance	22,131	18,036	
Pension expense	21,697	44,994	
Total Personnel Costs	256,627	258,455	
Bank charges	10,668	12,214	
Board of Trustees account	38,776	38,485	
Committee	68,091	90,607	
Computer and website	117,794	178,919	
Cost allocated from the City	24,847	22,598	
Depreciation	62,134	61,254	
Document management	406	375	
Equipment rental and maintenance	28,190	22,769	
Insurance	76,903	76,029	
Medical reviews, consulting, and investigations	57,722	63,184	
Office supplies and expenses	21,054	27,631	
Post-retirement and employee health care benefits	11,640	10,418	
Postage	15,115	14,761	
Professional fees:			
Accounting	51,089	60,093	
Actuary	55,000	46,825	
Investment consultant	145,000	145,000	
Outside general counsel	75,206	44,551	
Telephone	28,900	16,038	
Utilities	20,768	15,955	
Total Administrative Expenses	\$ 1,165,930	1,206,161	

#### INVESTMENT MANAGEMENT AND CUSTODIAL FEES

	For The Years Ended September 30		
	2018	2017	
Investment management fees:			
Allianz/NFJ Investment Group	\$ -	40,694	
Brandes Investment Partners	365,532	400,799	
CenterSquare Investment Management Company	119,513	186,233	
Commerce Bank N.A.	207,778	217,282	
Kennedy Capital Management, Inc.	189,256	181,061	
Lazard Asset Management, Inc.	253,278	224,424	
MFS Institutional Advisors, Inc.	191,806	179,491	
Neumeier Poma Investment Counsel, LLC	257,754	144,764	
PNC Capital Advisors	192,949	26,603	
Trilogy Global Advisors, LLC	356,830	320,558	
Wasatch Advisors, Inc.	-	168,040	
Wellington Trust Company, N.A.	335,216	313,039	
Westfield Capital Management Company, L.P.	208,045	179,527	
	2,677,957	2,582,515	
Custodial fees:			
The Northern Trust Company	187,558	202,685	
Total Investment Management And Custodial Fees	\$ 2,865,515	2,785,200	

The System bears its share of fund operating expenses (including the investment management fees) which are deducted directly from each individual fund's assets for the following investment funds:

Crescent Capital Group (Partnership Interest) Dover Street IX (Partnership Interest) ElmTree Net Lease Fund III, L.P. (Real Estate Separate Account) EnTrust Capital Diversified Fund QP, Ltd. (Hedge Fund) EnTrust Special Opportunities Fund III, L.P. (Hedge Fund) EnTrust Special Opportunities Fund IV, L.P. (Partnership Interest) Falcon E&P Opportunities Fund, L.P. (Partnership Interest) GAM U.S. Institutional Diversity, Inc. (Hedge Fund) IFM Global Infrastructure (U.S.), L.P. (Partnership Interest) Neuberger Berman Secondary Opportunities Fund III, L.P. (Partnership Interest) Neuberger Berman U.S. Equity Index PutWrite Fund, LLC (Hedge Fund) Pacific Investment Management Company (Mutual Fund) Parametric Defensive Equity Fund LLC (Partnership Interest) Petrocap Partners II, L.P. (Partnership Interest) Principal U.S. Property Account (Real Estate Separate Account) Salient Zarvona Energy Fund II-A, L.P. (Partnership Interest) Ullico Infrastructure Taxable Fund, L.P. (Partnership Interest) Zarvonia III-A, L.P. (Partnership Interest)

## SUMMARY OF INSURANCE COVERAGE

Туре	Policy Term	Coverage
Fiduciary liability	November 1, 2017 to November 1, 2018	\$ 10,000,000
Directors and Officers liability	November 1, 2017 to November 1, 2018	10,000,000
Commercial general liability	November 1, 2017 to November 1, 2018	2,000,000
Cyber and privacy liability	May 31, 2018 to May 31,2019	2,000,000
Umbrella liability	November 1, 2017 to November 1, 2018	1,000,000
Employee dishonesty, forgery, and computer fraud	November 1, 2017 to November 1, 2018	1,000,000
Non-owned automobile	November 1, 2017 to November 1, 2018	1,000,000
Property: Building Personal property	November 1, 2017 to November 1, 2018	2,327,475 1,639,229

## **HISTORICAL TREND INFORMATION - 10 YEARS**

Additions to net position:

		Cont	ributions			Net	
For The Years Ended September 30	Employer	]	Members	ortability And storations	]	Investment Income (Loss)	Total
2018	\$ 33,104,561	\$	4,600,917	\$ 528,237	\$	51,089,258	\$ 89,322,973
2017	33,826,528		4,456,241	197,727		93,520,079	132,000,575
2016	30,778,664		4,320,337	56,530		52,927,643	88,083,174
2015	30,600,069		4,202,023	285,919		(8,325,611)	26,762,400
2014	32,324,823		4,202,765	235,581		48,094,636	84,857,805
2013	32,629,036		4,270,446	251,125		77,112,248	114,262,855
2012	28,473,995		4,154,589	6,753		83,638,329	116,273,666
2011	20,036,918		4,155,488	269,071		(10,291,650)	14,169,827
2010	17,476,138		4,463,218	133,240		66,266,056	88,338,652
2009	14,318,031		4,497,970	293,950		6,293,776	25,403,727

## Deductions from net position:

For The Years Ended September 30	Benefits Paid	Refunds To Members	Admini- strative Expenses	Total	
2018	\$ 63,603,561	\$ 4,972,550	\$ 1,165,930	\$ 69,742,041	
2017	59,959,184	3,493,396	1,206,161	64,658,741	
2016	59,673,662	2,963,770	1,102,866	63,740,298	
2015	67,107,828	2,425,249	1,125,310	70,658,387	
2014	58,302,794	2,670,671	1,095,653	62,069,118	
2013	57,283,047	3,566,809	999,324	61,849,180	
2012	54,862,523	2,813,393	1,059,515	58,735,431	
2011	53,922,117	2,932,312	1,396,293	58,250,722	
2010	53,534,229	2,344,280	1,010,532	56,889,041	
2009	65,960,835	6,379,326	1,011,183	73,351,344	

## **INTERNAL CONTROL AND COMPLIANCE SECTION**



Hochschild, Bloom & Company LLP Certified Public Accountants Consultants and Advisors

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

February 6, 2019

## The Board of Trustees THE POLICE RETIREMENT SYSTEM OF ST. LOUIS

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the comptroller General of the United States, the statements of fiduciary net position and the related statements of changes in fiduciary net position of **THE POLICE RETIREMENT SYSTEM OF ST. LOUIS** (the System), a component unit of the City of St. Louis, Missouri, as of and for the year ended September 30, 2018, and the related notes to financial statements, which collectively comprise the System's basic financial statements, and have issued our report thereon dated February 6, 2019.

## INTERNAL CONTROL OVER FINANCIAL REPORTING

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

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

<sup>□ 15450</sup> South Outer Forty Road, Suite 135, Chesterfield, Missouri 63017-2066, 636-532-9525, Fax 636-532-9055 □ 1000 Washington Square, P. O. Box 1457, Washington, Missouri 63090-8457, 636-239-4785, Fax 636-239-5448

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

## **COMPLIANCE AND OTHER MATTERS**

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

## PURPOSE OF THIS REPORT

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

Hochschild, Bloom & Company LLP

**CERTIFIED PUBLIC ACCOUNTANTS** *Chesterfield, Missouri*