



**FIREMEN'S RETIREMENT
SYSTEM OF ST. LOUIS**

ANNUAL FINANCIAL REPORT
(Audited)

Fiscal Year Ended September 30, 2019

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
BOARD OF TRUSTEES AND KEY STAFF MEMBERS

BOARD OF TRUSTEES

Active Firefighters

Gerald "Jerry" Jacobsen, Chairman - Term Expires August 31, 2020
Demetris "Al" Alfred, Vice - Chairman - Term Expires August 31, 2021
William Ellner - Term Expires August 31, 2022

Retired Firefighter

Bruce Williams - Term Expires August 31, 2020

Ex-Officio

Chief Dennis Jenkerson
Darlene Green, Comptroller
or
Beverly Fitzsimmons, Deputy Comptroller - designee

Mayoral Appointees

Mark Smith - Term Expires August 31, 2020
James Sondermann - Term Expires August 31, 2020

KEY STAFF MEMBERS

John D. Brewer, Executive Director
Sue Degunia, Assistant Executive Director

FIREMEN’S RETIREMENT SYSTEM OF ST. LOUIS
FINANCIAL REPORT

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

INDEPENDENT AUDITOR'S REPORT

February 6, 2020

The Board of Trustees
FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS

REPORT ON THE FINANCIAL STATEMENTS

We have audited the accompanying financial statements of the **FIREMEN'S 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, 2019 and 2018, 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 an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America 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.

- 15450 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

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.

Opinion

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, 2019 and 2018, 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 basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. 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 basic 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, 2020, 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

FIREMEN’S RETIREMENT SYSTEM OF ST. LOUIS
MANAGEMENT’S DISCUSSION AND ANALYSIS
FOR THE YEAR ENDED SEPTEMBER 30, 2019

The following Management’s Discussion and Analysis (MD&A) of the Firemen’s Retirement System of St. Louis (the System) provides an overview of the System’s financial activities for the fiscal year ended September 30, 2019. 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, 2019 and 2018, global economies have shown signs of strengthening. The System is well diversified and the portfolio is continually managed and monitored to an investment policy established to minimize market risks. The System is a long-range proposition and is responsible for administering benefits to firefighters of the City of St. Louis who have dedicated their careers as public servants to the residents and businesses of the St. Louis metropolitan area. The System is frozen as of February 1, 2013. Active Members on February 1, 2013 are classified as “grandfathered” Members and benefits paid to these Members is based on the Member’s service and salary earned as of February 1, 2013. The only new benefits to be earned are the “grandfathered” Members who are in DROP status. The System has and will continue to provide benefits in a prudent and professional manner to its active (grandfathered) and retired Members and their beneficiaries.

The System’s net position was \$454 million at September 30, 2019, which represents a decrease of \$28 million or 5.7% from September 30, 2018.

Additions to net position for fiscal year 2019 were \$8.4 million as compared to additions of \$27.5 million for fiscal year 2018. The current period net additions are comprised of \$8.4 million of net investment income. The City was not required to make an employer contribution in fiscal year 2019, and no member contributions were received during the current year due to the System being frozen on February 1, 2013.

Deductions from net position were \$36.1 million for fiscal year 2019 and \$34.4 million for fiscal year 2018.

The overall investment return for the System was 1.80% for fiscal year 2019 as compared to a return of 5.82% for fiscal year 2018. The Board of Trustees acts to ensure the System retains top performing investment managers while maintaining a balanced investment portfolio.

Changes in Members’ benefits resulted from:

	For The	
	Years Ended	
	September 30	
	2019	2018
Service retirements:		
Regular	24	6
Death	-	-
Members requesting a refund withdrawal	4	3
Retiree death benefits	24	22

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 replaced GASB 25 and GASB 50 as reporting standards for governmental employer pension systems.

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS

MANAGEMENT'S DISCUSSION AND ANALYSIS

FOR THE YEAR ENDED SEPTEMBER 30, 2019

In accordance with GASB 67, the System highlights the following information reflected in this financial report:

- 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 over the future working lifetime of current participants (the entry age - frozen initial liability 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.
- 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 7.0% and expects assets will be sufficient to cover PNP.
- 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 (excess assets) to changes in the discount rate.
- Required supplemental information includes a schedule of changes in employer's net pension liability (excess assets), schedule of employer's net pension liability (excess assets), 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 contained in this section of the annual financial report consist of:

- The statements of fiduciary net position report 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 in the financial report are the MD&A, the RSI, and other supplemental information which provide other information considered useful in evaluating the condition of the System.

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE YEAR ENDED SEPTEMBER 30, 2019

FINANCIAL ANALYSIS

Total assets at September 30, 2019 were \$455,123,488 and were mainly comprised of cash and cash equivalents, investments, and receivables. Total assets decreased \$31,118,198 or 6.4% from September 30, 2018.

Total liabilities at September 30, 2019 were \$854,173 and consisted mainly of unsettled investment transactions, net pension liability - System's staff pension related, and accrued expenses. Total liabilities decreased \$3,460,516 or 80.2% from September 30, 2018 primarily due to the timing of unsettled investment transactions.

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 actuarial valuations at the beginning of the fiscal 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 (excess assets) and 2) deferred outflows/inflows of resources.

Net position - restricted for pensions was \$454,309,781 at September 30, 2019, a decrease of \$27,668,869 or 5.7% from fiscal year 2018. This decrease mainly resulted from benefits paid to retirees and beneficiaries exceeding net investment income and employer contributions during the year.

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

	September 30			Total Change			
				Amount		Percentage	
	2019	2018	2017	2019	2018	2019	2018
ASSETS							
Investments	\$ 449,328	478,044	484,383	(28,716)	(6,339)	(6.0) %	(1.3)
Cash and cash equivalents	3,802	3,801	4,096	1	(295)	-	(7.2)
Receivables	1,645	4,004	1,245	(2,359)	2,759	(58.9)	221.6
Capital assets, net	348	393	447	(45)	(54)	(11.4)	(12.1)
Total Assets	455,123	486,242	490,171	(31,119)	(3,929)	(6.4)	(0.8)
DEFERRED OUTFLOWS							
System's staff pension related	54	57	124	(3)	(67)	(5.9)	(54.0)
LIABILITIES	854	4,315	1,439	(3,461)	2,876	(80.2)	199.9
DEFERRED INFLOWS							
System's staff pension related	13	5	8	8	(3)	148.4	(37.5)
NET POSITION	\$ 454,310	481,979	488,848	(27,669)	(6,869)	(5.7) %	(1.4)

Revenues - Additions to Net Position

- Net investment income totaled \$8,382,530 in fiscal year 2019 as compared to net investment income of \$24,769,748 in fiscal year 2018. Investment income is net of investment expenses (investment management and custodial fees) totaling \$1,654,099 and \$2,024,352 for the years ended September 30, 2019 and 2018, respectively.

The reserves needed to finance retirement benefits as well as death and disability benefits are accumulated through the collection of employer contributions and through earnings on investments. Employer contributions were \$0 for the year ended September 30, 2019 as compared to \$2,715,141 for the prior year.

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE YEAR ENDED SEPTEMBER 30, 2019

Expenses - Deductions from Net Position

The primary expenses of the System include the payment of pension benefits to retirees and beneficiaries, administrative expenses, and refunds of Members' contributions to operate the System. Total expenses for fiscal year 2019 were \$36,051,399, a increase of \$1,696,947 from fiscal year 2018. This increase is mainly due to more member contribution refunds in fiscal year 2019 when compared to fiscal year 2018.

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

	For The Years			Total Change			
	Ended September 30			Amount		Percentage	
	2019	2018	2017	2019	2018	2019	2018
ADDITIONS							
Net investment income (loss)	\$ 8,382	24,770	61,052	(16,388)	(36,282)	(66.2) %	(59.4)
Employer contributions	-	2,715	3,314	(2,715)	(599)	(100.0)	(18.1)
Total Additions	<u>8,382</u>	<u>27,485</u>	<u>64,366</u>	<u>(19,103)</u>	<u>(36,881)</u>	<u>(69.5)</u>	<u>(57.3)</u>
DEDUCTIONS							
Benefits paid	32,997	32,655	32,325	342	330	1.0	1.0
Refund of Members' contributions	2,027	649	816	1,378	(167)	212.3	(20.5)
Administrative expenses	1,027	1,050	1,068	(23)	(18)	(2.2)	(1.7)
Total Deductions	<u>36,051</u>	<u>34,354</u>	<u>34,209</u>	<u>1,697</u>	<u>145</u>	<u>4.9</u>	<u>0.4</u>
CHANGE IN NET POSITION	(27,669)	(6,869)	30,157	(20,800)	(37,026)	(302.8)	(122.8)
NET POSITION, BEGINNING OF YEAR	<u>481,979</u>	<u>488,848</u>	<u>458,691</u>	<u>(6,869)</u>	<u>30,157</u>	<u>(1.4)</u>	<u>6.6</u>
NET POSITION, END OF YEAR	<u>\$ 454,310</u>	<u>481,979</u>	<u>488,848</u>	<u>(27,669)</u>	<u>(6,869)</u>	<u>(5.7) %</u>	<u>(1.4)</u>

SUMMARY

The System's net position - restricted for pensions has increased in six out of the past ten years. The decreases (which occurred in fiscal years 2019, 2018, 2015, and 2011) 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. With a continued focus on a prudent investment program, required employer contributions, cost controls, strategic planning, and changes in actuarial assumptions based on a 2019 experience study, the System should regain a 100% funded position over an extended period of years.

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE YEAR ENDED SEPTEMBER 30, 2019

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:

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St. Louis, MO 63104-3845
or
e-mail: jdbrewer@frs-stl.org

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
STATEMENTS OF FIDUCIARY NET POSITION

	September 30	
	2019	2018
ASSETS		
Investments at fair value:		
Equities:		
Corporate stocks	\$ 156,312,996	169,058,395
Collective investment funds	72,290,288	77,681,961
Fixed income:		
Collective investment funds	90,248,676	87,600,768
Corporate bonds	12,936,698	13,107,952
Government-backed bonds	5,252,421	3,632,191
Mortgage-backed bonds	4,096,131	2,781,122
Real estate investment trust	47,438,602	46,454,643
Hedge funds	39,513,072	50,975,465
Limited partnership units	15,441,597	19,114,182
Money market funds	5,798,018	7,637,199
Total Investments	449,328,499	478,043,878
Cash and cash equivalents	3,802,232	3,800,722
Receivables:		
Unsettled investment sale transactions	1,000,000	3,325,659
Foreign withholding tax reclaims	327,188	385,958
Interest and dividends	317,546	292,707
Total Receivables	1,644,734	4,004,324
Capital assets, less accumulated depreciation	348,023	392,762
Total Assets	455,123,488	486,241,686
DEFERRED OUTFLOWS OF RESOURCES		
System's staff pension related	53,583	56,933
LIABILITIES		
Unsettled investment purchase transactions	250,000	3,726,157
Accrued investment management fees	296,393	319,354
Net pension liability - System's staff pension related	219,637	222,861
Accrued administrative expenses	63,615	21,789
Members' contributions refundable	24,528	24,528
Total Liabilities	854,173	4,314,689
DEFERRED INFLOWS OF RESOURCES		
System's staff pension related	13,117	5,280
NET POSITION - RESTRICTED FOR PENSIONS	\$ 454,309,781	481,978,650

See notes to financial statements

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION

	For The Years	
	Ended September 30	
	2019	2018
ADDITIONS TO NET POSITION ATTRIBUTED TO		
Investment income:		
Net appreciation in fair value of investments	\$ 2,570,606	20,021,165
Dividends	4,796,083	4,474,310
Interest	2,530,349	2,047,212
Securities lending income	126,437	189,245
Class action lawsuit proceeds	13,154	62,168
Total Investment Income	<u>10,036,629</u>	<u>26,794,100</u>
Less - Investment management and custodial fees	1,654,099	2,024,352
Net Investment Income	<u>8,382,530</u>	<u>24,769,748</u>
Employer contributions	-	2,715,141
Total Additions	<u>8,382,530</u>	<u>27,484,889</u>
DEDUCTIONS FROM NET POSITION ATTRIBUTED TO		
Benefits paid to retirees and beneficiaries	32,997,002	32,654,972
Refunds of Members' contributions	2,027,172	649,093
Administrative expenses	1,027,225	1,050,387
Total Deductions	<u>36,051,399</u>	<u>34,354,452</u>
CHANGE IN NET POSITION	(27,668,869)	(6,869,563)
NET POSITION - RESTRICTED FOR PENSIONS, BEGINNING OF YEAR	<u>481,978,650</u>	<u>488,848,213</u>
NET POSITION - RESTRICTED FOR PENSIONS, END OF YEAR	<u><u>\$ 454,309,781</u></u>	<u><u>481,978,650</u></u>

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS

NOTES TO FINANCIAL STATEMENTS

NOTE A - DESCRIPTION OF PLAN

The **FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS** (the System) administers a single employer defined benefit pension plan providing pension benefits to the City of St. Louis firemen (the Members). The System is frozen as of February 1, 2013. Active Members on February 1, 2013 are classified as "grandfathered" Members, and benefits paid to these Members are based on the Member's service and salary earned as of February 1, 2013. Membership in the System consists of:

	September 30		Increase
	2019	2018	(Decrease)
Currently receiving benefits:			
Retirees	612	613	(1)
Beneficiaries	278	281	(3)
Total Currently Receiving Benefits	890	894	(4)
Current Active Members:			
Vested - participating in DROP	76	65	11
Vested - non-DROP	214	199	15
Nonvested	201	256	(55)
Total Current Active Members	491	520	(29)
Total Membership	1,381	1,414	(33)

The System provides retirement benefits as well as death and disability benefits. Members can voluntarily retire after a minimum of 20 years of service (compulsory retirement at age 60 with 30 years of service). The monthly allowance consists of 40% of the final two-year average monthly compensation at 20 years of service, plus 2% of such final average compensation for each of the next five years of service, plus 5% of final average compensation for each additional year of service after 25 years with a maximum pension of 75%. Unused accrued sick pay accumulated before February 1, 2013 may increase the maximum pension beyond this limitation.

Covered Members contributed 8% of their salary through February 1, 2013 (date frozen). Upon leaving employment, the Member's contributions are refunded. In addition, terminated Members receive interest.

During the fiscal year ended August 31, 1994, the System, in accordance with Ordinance 62994 of the City of St. Louis (the City), initiated a Deferred Retirement Option Plan (DROP). 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 the Member's contributions are 1% (previously reduced to 1% from the normal 8% through February 1, 2013). During participation in DROP, the Member will not receive credit for employer contributions or credit for service. A Member may participate in DROP only once for any period up to five years. At retirement the funds in the Member's DROP account plus: 1) interest and 2) accrued sick leave if elected is available to the Member in a lump sum or installments. The number of Members with DROP account balances and currently participating at September 30, 2019 and 2018 were as follows:

	Active Members		Retirees	Total DROP Accounts	DROP Account Balances	
	Currently Participating	Previously Participated	With DROP Balance		Active Members	Retired Members
2019	76	55	107	238	\$ 16,747,128	\$ 20,498,486
2018	65	62	92	219	17,352,996	17,954,353

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS

NOTES TO FINANCIAL STATEMENTS

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 as follows:

1. Reporting Entity

The System is a pension trust fund of 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 eight (8) Trustees, three (3) of whom are elected by the active Members of the System, one (1) of whom is elected by the retired Members of the System, two (2) of whom are appointed by the Mayor of the City, and two (2) of whom are Trustees by virtue of offices (Fire Chief and the 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. 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 (excess assets) as defined in the accounting standard is included in the notes to the financial statements and RSI. Other comprehensive footnote disclosures include the sensitivity of the net pension liability (excess assets) to the discount rate and investment activity disclosures. The total employer's projected net pension liability (excess assets) 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.

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
NOTES TO FINANCIAL STATEMENTS

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 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. Payments are processed by the Treasurer of the City.

8. Net Position - Restricted for Pensions

The System's net position - restricted for pensions consist of:

Member's Savings Fund -- Members contributed 8% of their compensation to the System through February 1, 2013 (date frozen). Such contributions are credited to the Member's Savings Fund. Interest, at a rate determined by the Board, is credited annually on the balance in each Member's account during the preceding year. Withdrawal refunds of Member's accumulated contributions are charged to this fund. Upon retirement or death in service of a Member with a surviving beneficiary, the Member's own contributions are refunded. Upon termination of employment or death in service with no survivor, the Member's contributions, including interest, are refunded. The balance at September 30, 2019 and 2018 was \$81,147,914 and \$83,356,133, respectively.

Benefit Reserve Fund -- Upon retirement or death, the Benefit Reserve Fund is payable to the Member or their beneficiaries. This amount is determined by the actuaries, in accordance with Ordinances 49623, 56444, 57603, 58242, 58651, 58652, and 59018. An amount is transferred from the General Reserve Fund which, when added to the amount transferred from Member's Savings Fund, brings the balance of the Benefit Reserve Fund to an amount equal

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
NOTES TO FINANCIAL STATEMENTS

NOTE B - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

8. Net Position - Restricted for Pensions (Continued)

to the present value of future benefits. The balance at September 30, 2019 and 2018 was \$332,183,241 and \$316,139,758, respectively.

General Reserve Fund -- Contributions made by the City are credited to the General Reserve Fund. The present value of all future estimated benefits payable to active Members on death or retirement not provided by Member's contributions are accumulated in this fund. The balance at September 30, 2019 and 2018 was \$36,327,481 and \$77,560,750, respectively.

Future Benefit Fund -- The Future Benefit Fund was established June 29, 1990 by City Ordinance as a method to fund increased benefits for retired Members. The funding of the Future Benefit Fund was terminated per the City Ordinance after fiscal year ended August 31, 1993. The balance in the fund will be used for future benefits until it is exhausted. Benefits of \$188,094 and \$493,945 were paid from the Future Benefit Fund during the years ended September 30, 2019 and 2018, respectively. The System entered into a settlement agreement with the City regarding sick leave benefits. The settlement required a one-time payment of \$1,070,749 during the year ended September 30, 2015 and 15 annual transfers between the Future Benefit Fund and the General Reserve Fund of \$166,792 starting with the year ended September 30, 2016 (see Note O). The Future Benefit Fund is excluded from the assets used in determining the employer's contribution requirement. The balance at September 30, 2019 and 2018 was \$4,546,004 and \$4,825,954, respectively.

System Employees Benefit Fund -- On August 28, 1997, the Board approved a resolution to provide additional benefits for the administrative employees of the System in the form of severance pay and a limited retirement package. The severance pay applies to employees who are dismissed for any reason other than for just cause based on the wrongful conduct of the employee. The dismissed employee would be entitled to one month's pay for each year or part of year that the employee has been employed by the System. The retirement package is for employees who have completed five years of service. Upon completing five years of service, the employee will have five months of salary credited to him or her. Thereafter the employee will be credited with a month of salary upon completion of each additional year of service. Employees accrued additional benefits of \$9,086 and \$11,053 for the years ended September 30, 2019 and 2018, respectively. The employees must make a one-time election as to how their accounts will be credited each anniversary date with interest on the account. There were no benefits paid from the System Employees Benefit Fund during the years ended September 30, 2019 and 2018. The System Employees Benefit Fund is excluded from the assets used in determining the employer's contribution requirement. The balance at September 30, 2019 and 2018 was \$105,141 and \$96,055, respectively.

The severance pay benefit program provided to administrative employees of the System was frozen to the current and future System's employees effective September 30, 2014. Future interest accrual or losses on employees' vested accounts is limited to one identified employee of the System.

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
NOTES TO FINANCIAL STATEMENTS

NOTE B - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

9. 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 actu-ary 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.

10. Capital Assets

Expenditures for property and equipment 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
Building	40
Building improvements	10 - 15
Furniture, equipment, and software	5 - 10

Expenditures for repairs and maintenance are expensed as incurred. Gains and losses on disposi-tion of property and equipment are included in changes in fiduciary net position as realized.

Capital assets, net of accumulated depreciation, is summarized by major classification as fol-lows:

	For The Year Ended September 30, 2019			Balance September 30 2019
	Balance September 30 2018	Increases	Decreases	
Capital assets not being depreciated:				
Land	\$ 83,086	-	-	83,086
Capital assets being depreciated:				
Building	205,417	-	-	205,417
Building improvements	232,702	-	-	232,702
Furniture, equipment, and software	505,216	9,419	7,796	506,839
Total Capital Assets Being Depreciated	943,335	9,419	7,796	944,958
Less - Accumulated depreciation for:				
Building	88,158	5,135	-	93,293
Building improvements	168,552	5,148	-	173,700
Furniture, equipment, and software	376,949	43,875	7,796	413,028
Total Accumulated Depreciation	633,659	54,158	7,796	680,021
Total Capital Assets Being Depreciated, Net	309,676	(44,739)	-	264,937
Total Capital Assets, Net	\$ 392,762	(44,739)	-	348,023

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
NOTES TO FINANCIAL STATEMENTS

NOTE B - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

10. Capital Assets (Continued)

Depreciation expense for the years ended September 30, 2019 and 2018 was \$54,158 and \$54,133, respectively.

11. 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.

12. 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.

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 statement of fiduciary net position.

NOTE C - CASH AND CASH EQUIVALENTS

The System's bank deposits 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 as of September 30, 2019 and 2018 were \$3,842,727 and \$3,837,923, respectively. Both years' balances were insured by the FDIC or collateralized with securities held by the pledging financial institution's trust department in the System's name. The System's carrying amount of bank deposits was \$3,802,232 and \$3,800,722 as of September 30, 2019 and 2018, respectively.

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
NOTES TO FINANCIAL STATEMENTS

NOTE D - CONTRIBUTION RECEIVABLE - EMPLOYER

Employer contributions are calculated by the System's actuary (Gabriel, Roeder, Smith & Company). The employer contributions due to the System for the years ended September 30, 2019 and 2018 were \$0 and \$2,715,141, respectively.

Contribution receivable - employer consists of the following:

	September 30	
	2019	2018
Contributions receivable, beginning of year	\$ -	-
Current year contributions due from the employer as calculated by the System's actuary	-	2,715,141
Contributions received from the employer during the year	-	(2,715,141)
Total Contributions Receivable, End Of Year	\$ -	-

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:

	September 30	
	2019	2018
Acadian Asset Management, LLC (international small cap): Collective investment fund - equity	\$ 23,225,533	25,810,916
AJO, LP (emerging markets): Collective investment fund - emerging markets strategy	30,654,987	32,418,201
Argent Capital Management, LLC (U.S. large cap growth index): Corporate stocks	27,954,439	31,164,950
Money market fund	798,940	607,725
	28,753,379	31,772,675
The Commerce Trust Company (core plus domestic fixed income): Corporate bonds - active core, primarily domestic	12,936,698	13,107,952
Government-backed bonds	5,252,421	3,632,191
Mortgage-backed bonds	4,096,131	2,781,122
Money market fund	556,625	413,000
	22,841,875	19,934,265
Eagle Capital Management, LLC (large cap value): Corporate stocks	25,490,795	27,237,907
Money market fund	1,832,845	351,519
	27,323,640	27,589,426

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
NOTES TO FINANCIAL STATEMENTS

NOTE E - INVESTMENTS (Continued)

	September 30	
	2019	2018
EnTrust Partners Offshore, LLC (multi-strategy hedge fund):		
Hedge fund	10,109,249	22,452,730
Money market fund	2,159	-
	10,111,408	22,452,730
Fisher Investments, Inc. (international small cap value):		
Corporate stocks	51,614,768	56,671,499
Money market fund	422,683	471,178
	52,037,451	57,142,677
Intech Investment Management, LLC (large cap enhanced plus):		
Corporate stocks	27,887,332	27,823,513
Money market fund	123,630	127,977
	28,010,962	27,951,490
Integrity Asset Management, LLC (small cap):		
Collective investment fund - small/mid-cap value	18,409,768	19,452,844
Money market fund	3,740	3,357
	18,413,508	19,456,201
MacKay Shields Collective Investment Trust (fixed income):		
Collective investment fund - foreign aggregate	45,831,553	42,462,352
Money market fund (overdraft)	(1,000,000)	504
	44,831,553	42,462,856
Magnitude Institutional, LLC (multi-strategy hedge fund):		
Hedge fund	29,403,823	28,522,735
The Northern Trust Company (index bonds and TIPS fund):		
Collective investment fund - fixed income	-	5,276,231
Corporate stocks	34,727	-
Money market fund	1,311,650	4,674,105
	1,346,377	9,950,336
Pinnacle Associates, Ltd. (small/mid cap growth):		
Corporate stocks	17,786,865	22,293,847
Money market fund	1,174,414	681,186
	18,961,279	22,975,033
Principal Financial Group (core real estate):		
Real estate investment trust	47,438,602	46,454,643

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
NOTES TO FINANCIAL STATEMENTS

NOTE E - INVESTMENTS (Continued)

	September 30	
	2019	2018
Prudential Trust Company (fixed income):		
Collective investment fund - domestic aggregate	44,417,123	39,862,185
Money market	-	402
	44,417,123	39,862,587
Tortoise Capital Advisors, LLC (master limited partnerships):		
Limited partnership units - energy	15,441,597	19,114,182
Corporate stocks - energy	5,544,070	3,866,679
Money market fund	571,332	306,246
	21,556,999	23,287,107
Total Investments	\$ 449,328,499	478,043,878

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 and give the highest priority to unadjusted quoted prices in active markets for identical assets (level 1 measurements) and the lowest priority to unobservable inputs (level 3 measurements).

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. 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 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, 2019, the System had no specific plans or intentions to sell investments at amounts different from NAV.

The categorization of investments within the hierarchy is based upon the pricing transparency of the instrument and should not be perceived as an indication of the risk associated with investing in these securities.

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
NOTES TO FINANCIAL STATEMENTS

NOTE E - INVESTMENTS (Continued)

For the investments measured at NAV at September 30, 2019 and 2018:

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

The System has the following recurring fair value measurements as follows:

	September 30, 2019			Total
	Level 1	Level 2	Level 3	
Investments, at fair value:				
Corporate stocks:				
Domestic	\$ 102,690,252	-	-	102,690,252
International	53,622,744	-	-	53,622,744
Corporate bonds:				
Domestic	-	12,936,698	-	12,936,698
Collective investment funds - international equity	23,225,533	-	-	23,225,533
Collective investment funds - domestic equity	49,064,755			49,064,755
Collective investment funds - domestic fixed income	-	90,248,676	-	90,248,676
Government-backed bonds	-	5,252,421	-	5,252,421
Limited partnership units - energy	15,441,597			15,441,597
Mortgage-backed bonds	-	4,096,131	-	4,096,131
Money market funds	5,798,018	-	-	5,798,018
Total Investments By Fair Value Level	<u>\$ 249,842,899</u>	<u>112,533,926</u>	<u>-</u>	<u>362,376,825</u>
Investments measured at NAV:				
Hedge funds				39,513,072
Real estate investment trust				47,438,602
Total Investments Measured At NAV				<u>86,951,674</u>
Total Investments Measured At Fair Value				<u>\$ 449,328,499</u>

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
NOTES TO FINANCIAL STATEMENTS

NOTE E - INVESTMENTS (Continued)

	September 30, 2018			
	Level 1	Level 2	Level 3	Total
Investments, at fair value:				
Corporate stocks:				
Domestic	\$ 110,460,302	-	-	110,460,302
International	58,598,093	-	-	58,598,093
Collective investment funds - government bonds, agencies, and mortgaged-backed securities	-	5,276,232	-	5,276,232
Corporate bonds:				
Domestic	-	13,107,952	-	13,107,952
Collective investment funds - international equity	58,229,116	-	-	58,229,116
Collective investment funds - domestic equity	19,452,845	-	-	19,452,845
Collective investment funds - domestic fixed income	-	82,324,536	-	82,324,536
Government-backed bonds		3,632,191		3,632,191
Limited partnership units - energy	19,114,182			19,114,182
Mortgage-backed bonds		2,781,122		2,781,122
Money market funds	7,637,199	-	-	7,637,199
Total Investments By Fair Value Level	<u>\$ 273,491,737</u>	<u>107,122,033</u>	<u>-</u>	<u>380,613,770</u>
Investments measured at NAV:				
Hedge funds				50,975,465
Real estate investment trust				46,454,643
Total Investments Measured At NAV				<u>97,430,108</u>
Total Investments Measured At Fair Value				<u>\$ 478,043,878</u>

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:

Fixed Income Investment Category	Maturities As Of September 30, 2019				
	Total	Less Than One Year	1 - 5 Years	6 - 10 Years	More Than 10 Years
Collective investment funds	\$ 90,248,676	6,806,106	30,869,071	27,439,116	25,134,383
Corporate bonds	12,936,698	400,554	5,976,099	3,051,886	3,508,159
Government-backed	5,252,421	200,940	3,187,769	484,046	1,379,666
Mortgage-backed	4,096,131	-	-	-	4,096,131
Total	<u>\$ 112,533,926</u>	<u>7,407,600</u>	<u>40,032,939</u>	<u>30,975,048</u>	<u>34,118,339</u>

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
NOTES TO FINANCIAL STATEMENTS

NOTE E - INVESTMENTS (Continued)

Fixed Income Investment Category	Maturities As Of September 30, 2018				
	Total	Less Than One Year	1 - 5 Years	6 - 10 Years	More Than 10 Years
Collective investment funds	\$ 87,600,768	3,177,640	27,010,229	35,906,903	21,505,996
Corporate bonds	13,107,952	711,608	6,262,979	3,173,420	2,959,945
Government-backed	3,632,191	247,387	2,215,184	872,597	297,023
Mortgage-backed	2,781,122	-	-	-	2,781,122
Total	<u>\$ 107,122,033</u>	<u>4,136,635</u>	<u>35,488,392</u>	<u>39,952,920</u>	<u>27,544,086</u>

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:

Credit Rating Level	Credit Rating As Of September 30, 2019				
	Total	Collective Investment Funds	Corporate Bonds	Government- Backed	Mortgage- Backed
AAA	\$ 46,226,559	42,624,819	-	3,601,740	-
AA	8,995,072	2,186,340	1,061,920	1,650,681	4,096,131
A	19,095,015	11,233,839	7,861,176	-	-
BBB	27,903,293	24,294,712	3,608,581	-	-
BB	4,362,550	4,158,511	204,039	-	-
B	4,317,792	4,317,792	-	-	-
Not rated	1,633,645	1,432,663	200,982	-	-
Total	<u>\$ 112,533,926</u>	<u>90,248,676</u>	<u>12,936,698</u>	<u>5,252,421</u>	<u>4,096,131</u>

Credit Rating Level	Credit Rating As Of September 30, 2018				
	Total	Collective Investment Funds	Corporate Bonds	Government- Backed	Mortgage- Backed
AAA	\$ 41,889,061	38,856,644	-	3,032,417	-
AA	7,964,629	3,409,228	1,174,505	599,774	2,781,122
A	17,566,877	8,937,580	8,629,297	-	-
BBB	27,272,934	24,163,022	3,109,912	-	-
BB	5,657,872	5,657,872	-	-	-
B	4,931,672	4,931,672	-	-	-
Not rated	1,838,988	1,644,750	194,238	-	-
Total	<u>\$ 107,122,033</u>	<u>87,600,768</u>	<u>13,107,952</u>	<u>3,632,191</u>	<u>2,781,122</u>

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS

NOTES TO FINANCIAL STATEMENTS

NOTE E - INVESTMENTS (Continued)

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

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:

Foreign Currency Exposures By Asset Class In U.S. Dollars As Of September 30, 2019

Currency	Equities	Fixed Income	Real Estate Investment Trust	Hedge Funds	Limited Partnership Units	Money Market Funds	Total
Australian Dollar	\$ 2,085,569	-	-	-	-	-	2,085,569
British Pound Sterling	7,523,300	-	-	-	-	-	7,523,300
Danish Krone	1,255,154	-	-	-	-	-	1,255,154
Euro	25,305,339	-	-	-	-	-	25,305,339
Hong Kong Dollar	2,107,527	-	-	-	-	-	2,107,527
Japanese Yen	5,589,671	-	-	-	-	-	5,589,671
Norwegian Krone	843,657	-	-	-	-	-	843,657
South Korean Won	1,486,939	-	-	-	-	-	1,486,939
Swiss Franc	970,977	-	-	-	-	-	970,977
Total Foreign Currency	47,168,133	-	-	-	-	-	47,168,133
United States Dollar	181,435,151	112,533,926	47,438,602	39,513,072	15,441,597	5,798,018	402,160,366
Total	<u>\$ 228,603,284</u>	<u>112,533,926</u>	<u>47,438,602</u>	<u>39,513,072</u>	<u>15,441,597</u>	<u>5,798,018</u>	<u>449,328,499</u>

Foreign Currency Exposures By Asset Class In U.S. Dollars As Of September 30, 2018

Currency	Equities	Fixed Income	Real Estate Investment Trust	Hedge Funds	Limited Partnership Units	Money Market Funds	Total
Australian Dollar	\$ 2,683,140	-	-	-	-	-	2,683,140
British Pound Sterling	8,299,079	-	-	-	-	-	8,299,079
Canadian Dollar	629,805	-	-	-	-	-	629,805
Danish Krone	1,245,848	-	-	-	-	-	1,245,848
Euro	25,279,319	-	-	-	-	-	25,279,319
Hong Kong Dollar	2,275,263	-	-	-	-	-	2,275,263
Japanese Yen	7,127,926	-	-	-	-	-	7,127,926
Norwegian Krone	991,946	-	-	-	-	-	991,946
South Korean Won	1,643,599	-	-	-	-	-	1,643,599
Swedish Krona	435,325	-	-	-	-	-	435,325
Swiss Franc	2,112,221	-	-	-	-	-	2,112,221
Total Foreign Currency	52,723,471	-	-	-	-	-	52,723,471
United States Dollar	194,016,885	107,122,033	46,454,643	50,975,465	19,114,182	7,637,199	425,320,407
Total	<u>\$ 246,740,356</u>	<u>107,122,033</u>	<u>46,454,643</u>	<u>50,975,465</u>	<u>19,114,182</u>	<u>7,637,199</u>	<u>478,043,878</u>

FIREMEN’S RETIREMENT SYSTEM OF ST. LOUIS
NOTES TO FINANCIAL STATEMENTS

NOTE E - INVESTMENTS (Continued)

Investments Policies

Custodial Credit Risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The System’s minimum credit quality for each issue shall be “BBB” (or its equivalent) at the time of purchase. In the event of a split-rating, the higher rating shall apply. The fixed income portfolio should have an average quality rating of at least “A” (or its equivalent). Commercial paper issues must be rated at least “A1” (or its equivalent) at the time of purchase. In the event of a split-rating, the higher rating shall apply. In the event of a downgrade below investment grade by any rating agency, the investment manager is required to notify the Board and investment consultant as soon as possible and to refrain from any further investment in the downgraded issue.

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 effective duration of any fixed income portfolio shall not exceed 120% of the effective duration of the investment manager’s broad market benchmark.

Concentration of Credit Risk is the risk of loss attributed to the magnitude of the System’s investment in a single issuer. The System’s policy does not allow the concentration per issuer to exceed 5% of the portfolio’s fair value at cost, with the exception of cash, cash equivalents, U.S. Treasury, or U.S. Agency securities. Furthermore, the investment manager may not hold more than 5% of the outstanding shares of any single issuer with the exception of U.S. Treasuries or Agencies. Investment in any single fund of hedge funds shall not exceed 10% of the fund’s fair value.

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:

Asset Class As A Percent Of Total Assets			
<u>Asset Class</u>	<u>Minimum</u>	<u>Target Mix</u>	<u>Maximum</u>
Domestic equity:			
Large cap	13%	18	23
Small mid cap	3	8	13
International equities	19	24	29
Fixed income	20	25	30
Real estate trust	10	15	20
Hedge funds	5	10	15

Long-term Expected Rate of Return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the System’s target asset allocation as of September 30, 2019 are summarized in the following table:

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
NOTES TO FINANCIAL STATEMENTS

NOTE E - INVESTMENTS (Continued)

<u>Asset Class</u>	<u>Long-term Expected Real Rate Of Return</u>
Core Bonds	2.6%
Core Plus	2.9
Absolute Return	4.2
US Large Cap Equity	7.2
US Small Cap Equity	8.4
International Developed Equity	8.1
Emerging Market Equity	9.4
Long/Short Equity	5.6
Core Real Estate (REIT)	6.8
Value Add Real Estate	8.3
Master Limited Partnerships	6.5
Money Market	-

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 2.50%) and net of investment expenses (assumed at 0.5%).

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:

- AJO, LP (Hedge Fund)
- EnTrust Capital Diversified Fund QP, Ltd. (Hedge Fund)
- Magnitude Institutional, LLC Class A (Hedge Fund)
- The Principal U.S. Property Account (REIT)

NOTE F - INVESTMENTS GREATER THAN 5% OF NET POSITION - RESTRICTED FOR PENSIONS

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

	<u>September 30</u>	
	<u>2019</u>	<u>2018</u>
The Principal U.S. Property Account (REIT)	\$ 47,438,602	46,454,643
Mackay Shields Core Plus Opportunities Portfolio	44,831,553	42,462,352
Prudential Core Plus Bond Fund	44,417,123	39,862,184
AJO Emerging Markets All-Cap Offshore Fund, Ltd.	30,654,987	32,418,201
Magnitude Institutional, LLC Class A Hedge Fund	29,403,823	28,522,735
Acadian International Small Cap Fund	23,225,533	25,810,916

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
NOTES TO FINANCIAL STATEMENTS

NOTE G - NET APPRECIATION (DEPRECIATION) IN FAIR VALUE OF INVESTMENTS

The net appreciation (depreciation) in fair value of investments consists of:

	For The Years	
	Ended September 30	
	2019	2018
Equities:		
Corporate stocks	\$ (1,884,140)	15,603,808
Collective investment funds	(3,861,992)	10,772,253
Fixed income:		
Collective investment funds	7,357,150	(1,572,541)
Corporate bonds	958,029	(545,393)
Government-backed bonds	356,983	(135,085)
Mortgage-backed bonds	190,116	(94,440)
Real estate investment trust	2,683,959	3,981,892
Hedge funds	(486,632)	(6,937,467)
Limited partnership units	(2,742,867)	(1,051,862)
Total	<u>\$ 2,570,606</u>	<u>20,021,165</u>

NOTE H - ACTUARIALLY DETERMINED CONTRIBUTIONS BASED ON STATUTORY REQUIRED CONTRIBUTIONS

The actuarial funding method utilized by the System as required by Missouri State Statutes is the entry age frozen liability method. Under this method, any frozen unfunded actuarial accrued liability is amortized over 30 years from the date the liability is added.

Actuarially determined contributions in accordance with this method are as shown in the following table:

	For The Years		Covered Payroll	
	Ended September 30		Percentage	
	2019	2018	2019	2018
Required contributions - employer:				
Portion of normal cost attributable to the System's fiscal year	\$ -	-	-	%
Unfunded actuarial accrued liability amortization payment	-	2,715,141	-	9.1
Total Employer Required Contributions	<u>\$ -</u>	<u>2,715,141</u>	<u>-</u>	<u>%</u>
Contributions Made By Employer During System's Fiscal Year	<u>\$ -</u>	<u>2,715,141</u>	<u>-</u>	<u>%</u>

This amount is developed by using one quarter of the current year's statutory annual required contribution and three quarters of the prior year's statutory annual required contribution because the City's fiscal year ends on June 30 each year.

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
NOTES TO FINANCIAL STATEMENTS

NOTE H - ACTUARIALY DETERMINED CONTRIBUTIONS BASED ON STATUTORY RE-REQUIRED CONTRIBUTIONS (Continued)

Covered payroll is the payroll on which contributions to the System are based. The covered payroll was \$28,991,522 and \$29,796,947 for the years ended September 30, 2019 and 2018, respectively.

The reduction in unfunded actuarial accrued liability (UAAL) for the System due to plan and assumption changes attributable to BB 109 on October 1, 2013, was greater than the remaining frozen initial liability (FIL). Consequently, the FIL for the System was set equal to zero at that date. A new FIL was added at September 30, 2015 resulting from actuarial assumption changes (mortality and discount rate) as a result of an actuarial cost study performed. The FIL was \$16,510,154 and \$32,545,598 at September 30, 2019 and 2018, respectively. The FIL amortization period is 30 years. As of October 1, 2018, the present value of future benefits was less than the actuarial value of assets, therefore, the September 30, 2019 City contribution was set at \$0.

NOTE I - NET PENSION LIABILITY (EXCESS ASSETS) - ENTRY AGE NORMAL ACTUARIAL COST METHOD

The components of the employer's net pension liability (excess assets) (the System's liability determined in accordance with GASB 67 less the fiduciary net position) as of September 30, 2019 and 2018, are shown in the schedules of employer's net pension liability (excess assets) 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 (excess assets) are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The schedule of changes in employer's net pension liability (excess assets) presents multi-year trend information about whether the System's fiduciary net positions are 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, 2019 and 2018, are based on an actuarial valuation performed as of October 1, 2019 and 2018, and a measurement date of September 30, 2019 and 2018, using generally accepted actuarial procedures.

Schedules of Net Pension Liability (Excess Assets)

	September 30	
	2019	2018
Total pension liability	\$ 475,309,000	459,237,398
System's fiduciary net position	449,763,777	477,152,696
Net Pension Liability (Excess Assets)	<u>\$ 25,545,223</u>	<u>(17,915,298)</u>
System's Fiduciary Net Position as a Percentage of Total Pension Liability	94.63%	103.90
Covered Members Payroll (excluding DROP participants)	\$ 28,991,522	29,796,947
Net Pension Liability (Excess Assets) as a Percentage of Covered Members Payroll	88.11%	(60.12)

FIREMEN’S RETIREMENT SYSTEM OF ST. LOUIS
NOTES TO FINANCIAL STATEMENTS

NOTE I - NET PENSION LIABILITY (EXCESS ASSETS) - ENTRY AGE NORMAL ACTUARIAL COST METHOD (Continued)

The System’s fiduciary net position shown in the previous schedules of employer’s net pension liability (excess assets) excludes the Future Benefit Fund restricted for SHARE program benefits. The Future Benefit Fund was \$4,546,004 and \$4,825,924 at September 30, 2019 and 2018, respectively.

The System is closed to new Members, and benefits have been frozen as of February 1, 2013. The actuarial accrued liability is now equal to the present value of frozen accrued benefits and DROP balances as of the measurement date.

Sensitivity of the net pension liability (excess assets) to changes in the discount rate: the following presents the net pension liability (excess assets), calculated using the discount rate of 7.0%, as well as what the net pension liability (excess assets) would be if it were calculated using a discount rate that is 1% point lower (6.0%) or 1% point higher (8.0%) than the current rate.

	<u>1% Decrease</u>	<u>Current Discount Rate Assumption</u>	<u>1% Increase</u>
Total pension liability	\$ 520,510,546	475,309,000	437,031,263
Net pension liability (excess assets)	\$ 70,746,769	25,545,223	(12,732,514)
System’s fiduciary net position/ total pension liability	86.48%	94.63	102.91

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

A single discount rate was used to measure the total pension liability. This single discount rate was based on the expected rate of return on the System’s investments of 7.0% (before administrative expense assumption of 0.25%). This single discount rate is net of investment expenses (investment management and custodial fees) assumed to be 50 basis points. The projection of cash flows used to determine this single discount rate assumed that the City would make the required contributions as defined by Missouri State Statutes. Based on these assumptions, the System’s fiduciary net position was projected to be available to make all projected future benefit payments of current Members and their beneficiaries. Therefore, the long-term expected rate of return on the System’s investments was applied to all periods of projected benefit payments to determine the total pension liability.

Experience Review Effective For Current Year Evaluation

The actuarial assumptions were updated based on the experience review for the period from October 1, 2014 through September 30, 2018 and are first effective with this actuarial valuation of October 1, 2019 as follows:

- Decrease the accrued investment return assumption from 7.3% (before administrative expense assumption of 0.3%) to 7.00% (before administrative expense assumption of 0.25%).
- Reduced price inflation assumption from 2.75% to 2.50%
- Reduced general payroll growth assumption from 3.00% to 2.75%

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
NOTES TO FINANCIAL STATEMENTS

NOTE I - NET PENSION LIABILITY (EXCESS ASSETS) - ENTRY AGE NORMAL ACTUARIAL COST METHOD (Continued)

- Updated mortality tables to Pub 2010 Public Safety Healthy Retiree and Employee Mortality Tables, with adjustments for future mortality improvements using Scale MP-2019
- Adjusted normal retirement rates to better reflect observed experience. Overall decreases are recommended for normal retirement rates.
- Assumed eligible members enter the DROP after earning at least 26 years of service, previously 23 years
- Adjusted timing of DROP distributions to better reflect observed experience
- Decreased termination rates to better reflect observed experience
- Assumed members use Sick Leave Balances earned as of February 1, 2013 at rate of 3 % per year

Each of the actuarial assumption changes as a result of the experience review approved by the System's Board of Trustees as appropriate increased the Frozen Initial Liability (FIL) used to determine funding as of September 30, 2018 as follows:

Mortality table	\$ 11,743,689
Economic	10,092,817
Demographic	<u>(3,000,485)</u>
Net FIL Increase	<u>\$ 18,836,021</u>

Methods and Assumptions used in Calculations of Actuarially Determined Pension Liability

Method:

Valuation date	October 1, 2019
Actuarial cost method (funding by State Statutes)	Entry Age - Frozen Initial Liability
Actuarial cost method (GASB 67 reporting)	Entry Age Normal
Amortization method/period	30-year closed period from establishment
Remaining amortization period	Various
Asset valuation method	3-year smoothed market

Actuarial assumptions:

Investment rate of return	6.75%, net of administrative expenses of 25 basis points
Long-term municipal bond rate	2.75%
Rate of payroll growth	2.75% to 3.75% based on service. Benefits have been frozen as of February 1, 2013; therefore, no salary increases have been assumed for purposes of determining benefits
Consumer price inflation	2.50%
Mortality	Post-retirement ordinary - Pub-2010 Public Safety Healthy Annuitant Mortality Table, sex distinct
	Pre-retirement - Pub-2010 Public Safety Employee Mortality Tables, sex distinct
	Post-disability - Pub-2010 Public Safety Disable Retiree Mortality Table, sex distinct

Future mortality improvements are reflected by projecting the base mortality tables forward from the year 2010 using the MP-2019 projection scale.

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
NOTES TO FINANCIAL STATEMENTS

NOTE I - NET PENSION LIABILITY (EXCESS ASSETS) - ENTRY AGE NORMAL ACTUARIAL COST METHOD (Continued)

Cost-of-living adjustments (COLA):

	Under Age 60	
Service Years		COLA
20 - 24		1.50%
25 - 29		2.25
30 or more		3.00
	Over Age 60	
	5% with a maximum of 25% in increases after age 60	

NOTE J - 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. Borrowers shall be rated AA, A, or higher by Moody's or Standard and Poors. Collateral consisting of cash, letter of credit, U.S. government or agency securities, or floating rate notes of U.S. issuers is received and held by NTC. The collateral maintained is at least 102% of loan value for domestic securities and 105% of loan value for international securities of the fair value of the securities lent. 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, 2019 and 2018, outstanding loans to borrowers were \$24,751,790 and \$24,338,066, respectively. The System earned income of \$126,437 and \$189,245 for its participation in the securities lending program for the years ended September 30, 2019 and 2018, respectively.

NOTE K - SYSTEM STAFF 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.

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
NOTES TO FINANCIAL STATEMENTS

NOTE K - SYSTEM STAFF PENSION PLAN (Continued)

Benefits Provided

Upon retirement at age 65, or at any age plus years if credited service equals or exceeds 85 (Rule of 85), employees receive monthly payments for life of yearly benefits equal to years of credited service multiplied by 1.3% of average final compensation plus 2.05% of average final compensation in excess of employee's benefit compensation in excess of the current Social Security wage base. Early retirement can occur at age 60 with at least five years of service. This early service retirement allowance is reduced by 4% for each year prior to age 65 or at the age at which the Rule of 85 would have been satisfied had the employee continued working until that age, if earlier.

Disability retirement is available if an employee has 5 years of creditable service and is totally disabled as determined by the Medical Board. The disability pension is computed in the same manner as normal service retirement.

In lieu of the benefit paid over the lifetime of the employee, reduced benefit options are available for survivor and beneficiary payments.

Employees are eligible, after accumulation of 5 years of credited service, for disability benefits prior to eligibility of normal retirement. Survivor benefits are available for beneficiaries of employees who die after at least 5 years of service.

The Deferred Retirement Option Plan (DROP) allows employees who have reached retirement eligibility to begin receiving a pension benefit while continuing to work. The benefit is paid to an employee's DROP account where it earns interest. No creditable service is earned during DROP participation. An employee can participate in DROP for a maximum of 5 years and can immediately retire or continue to work and resume earning creditable service.

Contributions

ERS does not require employee contributions.

The System was contractually required to contribute a percentage of annual payroll as follows:

<u>Service Period</u>	<u>Contribution Rate</u>
July 2019 to present	12.26%
July 2018 to June 2019	12.36
July 2017 to June 2018	12.22

The amount is actuarially determined and is expected to finance the costs of benefits earned by employees during the year along with any additional amount to finance the UAAL. Contributions to ERS from the System were \$46,057 and \$44,431 for the years ended September 30, 2019 and 2018, respectively.

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
NOTES TO FINANCIAL STATEMENTS

NOTE K - SYSTEM STAFF PENSION PLAN (Continued)

Net Pension Expense

Net pension expense is the sum of changes in the net pension liability and deferred inflows and outflows of resources. The System's net pension expense was calculated as follows:

	For The Years Ended September 30	
	2019	2018
System's employer contributions	\$ 46,057	44,431
Decrease in net pension liability	(3,224)	(41,964)
Decrease in deferred inflows of resources	7,837	(2,213)
Decrease in deferred outflows of resources	3,350	67,454
Net Pension Expense	\$ 54,020	67,708

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 Systems fiscal years September 30, 2018 and 2017, 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 \$219,637 (or 0.13%) and \$222,861 (or 0.13%) for its proportionate share of ERS' net pension liability for the years ended September 30, 2019 and 2018, respectively. The System's proportion 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 participating employers, actuarially determined.

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

	For The Year Ended September 30, 2019		
	Outflows	Inflows	Net Outflows
Net difference between expected and actual experience	\$ -	(13,117)	(13,117)
Net difference between projected and actual earnings on ERS' investments	4,723	-	4,723
Net impact from changes in proportion allocation between the participating employers	2,804	-	2,804
Fiscal year 2019 paid contributions	46,056	-	46,056
Total	\$ 53,583	(13,117)	40,466

	For The Years Ending September 30				
	Total	2020	2021	2022	2023
Deferred outflows (inflows) future recognition	\$ 40,466	55,640	(13,066)	(4,987)	2,879

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
NOTES TO FINANCIAL STATEMENTS

NOTE K - SYSTEM STAFF PENSION PLAN (Continued)

	For The Year Ended September 30, 2018		
	Outflows	Inflows	Net Outflows
Net difference between expected and actual experience	\$ -	(5,280)	(5,280)
Net difference between projected and actual earnings on ERS' investments	2,425	-	2,425
Net impact from changes in proportion allocation between the participating employers	10,077	-	10,077
Fiscal year 2018 paid contributions	44,431	-	44,431
Total	\$ 56,933	(5,280)	51,653

	For The Years Ending September 30				
	Total	2019	2020	2021	2022
Deferred outflows (inflows) future recognition	\$ 51,653	59,221	11,301	(11,095)	(7,774)

Actuarial Methods and Assumptions used in Calculations of Actuarially Determined Pension Liability

Valuation date:

Actuarially determined contributions are calculated as of October 1, 2018 and 2017 (beginning of year) valuation date used to calculate the required contribution for the fiscal years ending September 30, 2019 and 2018.

Actuarial methods:

Actuarial cost method (Funding)	Projected Unit Credit Cost Method
Actuarial cost method (GASB 68)	Entry Age Normal
Amortization method - 2017, 2018, and 2019	Fixed 20-year period as of October 1, 2015 as a level percentage of payroll. Future gains and losses and changes in actuarial assumptions will be amortized in layers over 20-year periods.
Amortization method - 2016	Rolling 30-year level dollar amortization of unfunded liability
Asset valuation method	5-year smoothing

Actuarial assumptions:

Inflation	2.5%
Salary increases - 2017, 2018, and 2019	3% plus merit component based on employee's year of service
Salary increases - 2016	3.5% plus merit component based on employee's years of service
Investment rate of return	2018, 2017 and 2016 - 7.5%, net of pension plan investment expenses
Mortality rates - ordinary - 2019, 2018, 2017, and 2016	RP-2000 healthy mortality 3-year set-forward with generational projections using scale A
Mortality rates - disability - 2019, 2018, 2017, and 2016	RP-2000 disabled mortality 3-year set-forward with generational projections using scale AA

FIREMEN’S RETIREMENT SYSTEM OF ST. LOUIS
NOTES TO FINANCIAL STATEMENTS

NOTE K - SYSTEM STAFF PENSION PLAN (Continued)

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’ 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 long-term expected rate of return 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:

	<u>1% Decrease</u>	<u>Current Discount Rate Assumption</u>	<u>1% Increase</u>
Discount rate	6.5%	7.5	8.5
Net pension liability	\$ 347,375	219,637	110,301

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

NOTE L - SYSTEM EMPLOYEES AND POST-RETIREMENT BENEFITS

The System will pay health insurance for the employees regardless of whether or not it is the health insurance that the City offers to its employees so long as the cost is less than the City’s health insurance plan. Current System employees are reimbursed up to \$500 per calendar year for vision care. Reimbursed health care benefits totaled \$10,073 and \$8,401 for the years ended September 30, 2019 and 2018, respectively.

The System provides post-retirement health care benefits to all employees with a minimum of ten years of service who retire from the System on or after attaining age 65. Currently two retirees are receiving these post-retirement benefits. Expenses for post-retirement health care benefits are recognized when incurred. Due to only two eligible retirees and the limited exposure, no provision for estimated claims incurred but not yet reported has been made. Expenses for post-retirement health care were \$10,270 and \$11,880 for the years ended September 30, 2019 and 2018, respectively.

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS

NOTES TO FINANCIAL STATEMENTS

NOTE M - RELATED PARTY TRANSACTIONS

The System reimburses the City 100% of the total salaries, payroll taxes, and employee fringe benefits for the System's employees. The System's expense for the years ended September 30, 2019 and 2018, was \$436,610 and \$438,386, respectively. The System also reimburses the City for cost allocated from the Treasurer's Department. The System's expenses for the years ended September 30, 2019 and 2018, was \$4,933 and \$8,636, respectively.

NOTE N - RISK MANAGEMENT

The System is exposed to various risks of loss related to breach of fiduciary duties, errors and omissions, and 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 four fiscal years.

NOTE O - COMMITMENTS AND CONTINGENCIES

Unsettled Investment Transactions

The System was committed to the future settlement of investments purchased (accounted for by trade date) at September 30, 2019 and 2018, of \$250,000 and \$3,726,157, respectively. These amounts are reflected in the statements of fiduciary net position as a liability for unsettled investment transactions.

Lawsuits

The System entered into a settlement agreement with the Firefighters' Retirement Plan (FRP) in July 2015 whereby firefighters employed by the City prior to February 1, 2013 are entitled to use unused medical leave that accrued from September 2, 2010 and February 1, 2013 for pension purposes. The cost of the additional sick leave benefits was funded in part with a one-time transfer of \$1,070,749 from the System's Future Benefit Fund to FRP paid on October 2, 2015. The remaining actuarial present value of the cost of the additional sick leave benefits applicable to the System of \$1,515,608 shall be paid in full from the System's Future Benefit Fund to the General Reserve Fund of the System on a 15-year amortized basis, with annual payments of \$166,792 beginning October 2015. The actuarially determined net present value of the remaining balance to transfer totals was \$1,258,077 and \$1,329,720 as of September 30, 2019 and 2018, respectively.

NOTE P - 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 such changes could materially affect the amounts reported in the statements of fiduciary net position.

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS

NOTES TO FINANCIAL STATEMENTS

NOTE P - RISKS AND UNCERTAINTIES (Continued)

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 Q - TAX STATUS

The System meets the requirements of a governmental plan under Section 414(d) of the Internal Revenue Code (IRC). The System obtained its latest determination letter on December 20, 2016 in which the Internal Revenue Service (IRS) stated that the System, as designed, was in compliance with the applicable requirements of the IRC. The Trustees believe that the System is currently designed and being operated in compliance with the applicable requirements of the IRC. Therefore, they believe that the System was qualified and the related trust was tax exempt as of the financial date.

Accounting principles generally accepted in the United States of America require the System's Trustees to evaluate tax positions taken by the System and recognize a tax liability if an uncertain position that more likely than not would not be sustained upon examination by the IRS or U.S. Department of Labor (DOL). The System's Trustees have analyzed the tax positions taken by the System and has concluded that as of September 30, 2019 and 2018, no uncertain positions are taken or are expected to be taken that would require recognition of a liability or disclosure in the financial statements. The System is subject to routine audits by the taxing jurisdictions; however, there are currently no audits for any tax periods in progress and the System has not been assessed any interest or penalties by the IRS or U.S. DOL.

NOTE R - RATE OF RETURN

For the years ended September 30, 2019 and 2018, the annual money-weighted rate of return (loss) on the System's investments, net of investment expenses, was 1.80% and 5.82%, respectively. The money-weighted rate of return expresses investment performance, net of investment expenses, adjusted for the changing amounts actually invested.

NOTE S - SUBSEQUENT EVENTS

The System has performed an evaluation of subsequent events through February 6, 2020, the date the basic financial statements were available to be issued. No material events were identified by the System.

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
NOTES TO FINANCIAL STATEMENTS

NOTE T - SYSTEM RESERVES

Changes in the System's reserves for the years ended September 30, 2019 and 2018 are as follows:

	<u>Total</u>	<u>Member's Savings Fund</u>	<u>Benefit Reserve Fund</u>	<u>General Reserve Fund</u>	<u>Future Benefit Fund</u>	<u>System Employees Benefit Fund</u>
Balance, September 30, 2017	\$ 488,848,213	80,059,314	325,427,379	78,039,592	5,236,926	85,002
Contributions	2,715,141	-	-	2,715,141	-	-
Net investment income less administrative expenses	23,719,361	3,993,866	15,494,672	3,970,005	249,765	11,053
Transfer due to (surplus) deficit	-	(47,954)	7,378,734	(7,330,780)	-	-
Transfer in accordance with Sick Leave Settlement	-	-	-	166,792	(166,792)	-
Benefits paid to retirees and beneficiaries	(32,654,972)	-	(32,161,027)	-	(493,945)	-
Refunds of Members' contributions	(649,093)	(649,093)	-	-	-	-
Change in reserves for the year ended September 30, 2018	<u>(6,869,563)</u>	<u>3,296,819</u>	<u>(9,287,621)</u>	<u>(478,842)</u>	<u>(410,972)</u>	<u>11,053</u>
Balance, September 30, 2018	<u>481,978,650</u>	<u>83,356,133</u>	<u>316,139,758</u>	<u>77,560,750</u>	<u>4,825,954</u>	<u>96,055</u>
Contributions	-	-	-	-	-	-
Net investment income less administrative expenses	7,355,305	1,303,978	4,746,613	1,220,692	74,936	9,086
Transfer due to (surplus) deficit	-	(1,485,025)	44,105,778	(42,620,753)	-	-
Transfer in accordance with Sick Leave Settlement	-	-	-	166,792	(166,792)	-
Benefits paid to retirees and beneficiaries	(32,997,002)	-	(32,808,908)	-	(188,094)	-
Refunds of Members' contributions	(2,027,172)	(2,027,172)	-	-	-	-
Change in reserves for the year ended September 30, 2019	<u>(27,668,869)</u>	<u>(2,208,219)</u>	<u>16,043,483</u>	<u>(41,233,269)</u>	<u>(279,950)</u>	<u>9,086</u>
Balance, September 30, 2019	<u>\$ 454,309,781</u>	<u>81,147,914</u>	<u>332,183,241</u>	<u>36,327,481</u>	<u>4,546,004</u>	<u>105,141</u>

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
REQUIRED SUPPLEMENTAL INFORMATION

REQUIRED SUPPLEMENTAL INFORMATION SECTION

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
REQUIRED SUPPLEMENTAL INFORMATION -
GASB STATEMENT NO. 67 PENSION ELEMENTS - SYSTEM RELATED

SCHEDULES OF CHANGES IN NET PENSION LIABILITY (EXCESS ASSETS)

	For The Years Ended September 30					
	2019	2018	2017	2016	2015	2014 (A)
Discount Rate Assumption (gross of administrative expenses)	7.000 %	7.300	7.300	7.300	7.300	7.925
Total Pension Liability (B)						
Service cost	\$ -	-	-	-	-	-
Interest on total pension liability	32,252,813	32,729,886	34,536,458	34,916,115	34,403,495	34,449,637
Benefit changes	-	-	-	-	-	-
Differences between expected and actual experience	(1,287,244)	(5,442,030)	(26,462,974)	(6,984,303)	15,441	-
Assumption changes	19,942,113 (E)	-	-	-	43,915,338 (E)	-
Benefit payments	(32,808,908)	(32,161,027)	(32,015,540)	(32,154,888)	(33,561,947)	(34,001,921)
Refunds of Members' contributions	(2,027,172)	(649,093)	(816,435)	(1,278,330)	(1,294,477)	(1,205,393)
Net Change In Total Pension Liability	16,071,602	(5,522,264)	(24,758,491)	(5,501,406)	43,477,850	(757,677)
Total Pension Liability Beginning	459,237,398	464,759,662	489,518,153	495,019,559	451,541,709	452,299,386
Total Pension Liability Ending (a)	\$ 475,309,000	459,237,398	464,759,662	489,518,153	495,019,559	451,541,709
System Fiduciary Net Position						
Contributions - Employer	\$ -	2,715,141	3,313,603	2,715,140	-	1,007,760
Net investment income (loss)	8,307,594	24,519,983	60,390,472	38,228,538	(10,931,763)	48,269,780
Benefit payments	(32,808,908)	(32,161,027)	(32,015,540)	(32,154,888)	(33,561,947)	(34,001,921)
Refunds of Members' contributions	(2,027,172)	(649,093)	(816,435)	(1,278,330)	(1,294,477)	(1,205,393)
Administrative expenses	(1,027,225)	(1,050,387)	(1,067,626)	(1,095,335)	(1,593,979)	(1,424,217)
Transfer from Future Benefit Fund	166,792	166,792	166,792	166,792	-	-
Net Change In System Fiduciary Net Position	(27,388,919)	(6,458,591)	29,971,266	6,581,917	(47,382,166)	12,646,009
Transfer out	-	-	-	-	-	(10,278,591)
System Fiduciary Net Position Beginning	477,152,696	483,611,287	453,640,021	447,058,104	494,440,270 (C)	492,221,578
System Fiduciary Net Position Ending (b)	\$ 449,763,777 (D)	477,152,696 (D)	483,611,287 (D)	453,640,021 (D)	447,058,104 (D)	494,588,996 (D)
Net Pension Liability (Excess Assets) Ending (a)-(b)	\$ 25,545,223	(17,915,298)	(18,851,625)	35,878,132	47,961,455	(43,047,287)
Assets Excluded From System Fiduciary Net Position - Future Benefit Fund (D)	\$ 4,546,004	4,825,954	5,236,926	5,051,183	4,804,701	6,326,389

Notes:

- (A) The September 30, 2014 total pension liability was restated due to an actuarial revision to develop the System's liabilities assuming benefits are fully earned because the System is closed to new Members, and benefits have been frozen as of February 1, 2013. The actuarial accrued liability, at that time, is now equal to the present value of frozen accrued benefits and DROP balances as of the measurement date.
- (B) 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.
- (C) The September 30, 2014 System fiduciary net position was restated (decreased) by \$148,726 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.
- (D) The System's fiduciary net position shown in the above schedules of changes in net pension liability (excess assets) excludes the Future Benefit Fund, including its earnings allocated, transfer out, and SHARE program benefits.
- (E) The actuarial assumptions were updated based on the experience review for the period October 1, 2014 through September 30, 2018, and are first effective with the actuarial valuation as of October 1, 2019. The actuarial assumptions were updated based on the experience review for the period October 1, 2009 through September 30, 2014, and are first effective with the actuarial valuation as of October 1, 2015.

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
REQUIRED SUPPLEMENTAL INFORMATION -
GASB STATEMENT NO. 67 PENSION ELEMENTS - SYSTEM RELATED

SCHEDULES OF NET PENSION LIABILITY (EXCESS ASSETS)

	For The Years Ended September 30					
	2019	2018	2017	2016	2015	2014
Total pension liability	\$ 475,309,000	459,237,398	464,759,662	489,518,153	495,019,559	451,541,709
System fiduciary net position	449,763,777	477,152,696	483,611,287	453,640,021	447,058,104	494,588,996
Net Pension Liability (Excess Assets)	<u>\$ 25,545,223</u>	<u>(17,915,298)</u>	<u>(18,851,625)</u>	<u>35,878,132</u>	<u>47,961,455</u>	<u>(43,047,287)</u>
System Fiduciary Net Position as a Percentage of the Total Pension Liability	94.63 %	103.90	104.06	92.67	90.31	109.53
Covered Payroll (excluding DROP participants)	\$ 28,991,522	29,796,947	31,079,373	30,219,253	30,288,086	29,767,542
Net Pension Liability (Excess Assets) as a Percentage of Covered Payroll	88.11 %	(60.12)	(60.66)	118.73	158.35	(144.61)

FIREMEN'S 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						
	2019	2018	2017	2016	2015	2014	2013
Employer actuarially determined contributions	\$ -	2,715,141	3,313,603	2,715,140	-	1,007,760	9,803,957
Contributions in relation to the actuarially determined contributions	-	2,715,141	3,313,603	2,715,140	-	1,007,760	10,137,271
Contributions Excess	\$ -	-	-	-	-	-	333,314
 Covered Payroll (excluding DROP participants)	 \$ 28,991,522	 29,796,947	 31,079,373	 30,219,253	 30,288,086	 29,767,542	 30,021,550
Contributions as a Percentage of Covered Payroll	- %	9.11	10.66	8.98	-	3.39	33.77

FIREMEN'S 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						
	2019	2018	2017	2016	2015	2014	2013
Annual money-weighted rate of return, net of investment expenses	<u><u>1.80 %</u></u>	<u><u>5.82</u></u>	<u><u>14.69</u></u>	<u><u>9.20</u></u>	<u><u>(2.42)</u></u>	<u><u>10.32</u></u>	<u><u>14.41</u></u>

FIREMEN'S 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, 2019

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, 2019.

2. Changes in Actuarial Assumptions

The actuarial assumptions were updated based on the experience review for the period from October 1, 2014 through September 30, 2018, and are first effective with this actuarial valuation of October 1, 2019. Key findings and recommendations:

- Decreased the accrued investment return assumption from 7.3% (before administrative expense assumption of 0.3%) to 7.0% (before administrative expense assumption of 0.25%)
- Reduce price inflation assumption from 2.75 to 2.50%
- Reduced general payroll growth assumption from 3.00 to 2.75%
- Updated mortality tables to Pub 2010 Public Safety Healthy Retiree and Employee Mortality Tables, with adjustments for future mortality improvements using Scale MP-2019
- Adjusted normal retirement rates to better reflect observed experience. Overall decreases are recommended for normal retirement rates.
- Assumed eligible members enter the DROP after earning at least 26 years of service, previously 23 years
- Adjusted timing of DROP distributions to better reflect observed experience
- Decreased termination rates to better reflect observed experience
- Assumed members use Sick Leave Balances earned as of February 1, 2013 at rate of 3 % per year

3. Changes in Actuarial Method

None

4. Method and Assumptions used in Calculations of Actuarially Determined Pension Liability

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, 2018 actuarial valuation was made during the fiscal year ended September 30, 2019. The following actuarial methods and assumptions were used to determine pension liability reported in the schedules of changes in employer's net pension liability (schedule):

Method:

Valuation date	October 1, 2014 through 2019
Actuarial cost method (funding by state statutes) - 2014 through 2019	Entry Age - Frozen Initial Liability
Actuarial cost method (GASB 67 reporting) - 2014 through 2018	Entry Age Normal
Actuarial cost method (GASB 67 reporting) - 2019	Entry Age - Actuarial Cost Method
Amortization method/period - 2014 through 2019	30-year closed period from establishment
Remaining amortization period - 2016 through 2019	Various
Remaining amortization period - 2014 and 2015	None - No unfunded actuarial liability
Asset valuation method - 2014 through 2019	3-year smoothed market

Actuarial assumptions:

Investment rate of return - 2019	6.75%, net of administrative expenses of 25 basis points
Investment rate of return - 2015 through 2018	7.0%, net of administrative expenses of 30 basis points
Investment rate of return - 2014	7.625%, net of administrative expenses of 30 basis points
Long-term municipal bond rate	2014 - 4.11%; 2015 - 3.71%; 2016 - 3.06%; 2017 - 3.5%; 2018 - 3.83%; and 2019 - 2.75%
Rate of payroll growth - 2019	2.75 to 3.75% based on service. Benefits have been frozen as of February 1, 2013; therefore, no salary increases have been assumed.
Rate of payroll growth - 2015 through 2018	3% to 4% based on service. Benefits have been frozen as of February 1, 2013; therefore, no salary increases have been assumed.
Rate of payroll growth - 2014	3.35% to 5.5% based on service. Benefits have been frozen as of February 1, 2013; therefore, no salary increases have been assumed.
Consumer price inflation - 2019	2.50%
Consumer price inflation - 2015 through 2018	2.75%
Consumer price inflation - 2014	3.00%
Mortality - 2019	Post-retirement ordinary - Pub-2010 Public Safety Healthy Annuitant, sex distinct Pre-retirement - Pub-2010 Public Safety Employee Mortality Tables, sex distinct
Mortality - 2015 through 2018	Post-disability - Pub-2010 Public Safety Disable Retiree Mortality Tables, sex distinct Post-retirement ordinary - RP-2014 Healthy Annuitant Mortality Tables, sex distinct Pre-retirement - RP-2014 Employee Mortality Tables, sex distinct
Mortality - 2014	Post-disability - assumed to be 20% higher than post-retirement mortality rates RP-2000 mortality table, sex district, with rates projected to 2015

FIREMEN'S 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, 2019 (Continued)

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 the end of each month and on the actual or approximate date of contributions, benefit payments, and expenses.

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

Projected benefit payments are required to be discounted to their actuarial present values using a single discount rate that reflects: 1) a long-term expected rate of return on the System's investments (to the extent that the System's fiduciary net position is projected to be sufficient to pay benefits) and 2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating (which is published by the Federal Reserve) as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

The long-term expected rate of return of the System's funding is assumed to be 6.75%. Per Missouri State Statutes, this rate is net of both investment and administrative expenses. GASB 67 requires the long-term expected rate of return to be determined net of pension plan investment expense but without pension plan investment expense but without reduction for the System's administrative expenses. Investment expenses (investment management and custodial fees) are assumed to be approximately 50 basis points. Administrative expenses are assumed to be approximately 25 basis points; consequently, the long-term expected rate of return used for purposes of GASB 67 is increased by 25 basis points to 7.0%. This rate is gross of administrative expenses.

For the purpose of this valuation, the expected rate of return on the System's investments is 7.0%; the municipal bond rate is 2.75% (based on the weekly rate closest to but not later than the measurement date of the "state and local bonds" rate from Federal Reserve statistical release (H.15)); and the resulting single discount rate is 7.0%. The single discount rate is unchanged from the expected rate of return on the System's investments because the System is closed to new Members and the System's net position is projected to be sufficient to pay all vested benefits of all current Members and their beneficiaries using actuarial assumptions until 2110. Furthermore, in the event that the assets fall below the present value of benefits and a contribution is required, a sound funding policy based on the frozen initial liability actuarial cost method is used, as defined by Missouri state statutes.

8. Total Payroll and Covered Payroll

The covered payroll for active Members is the payroll on which contributions to the System are based. Member payroll were as follows:

	For The Years Ended September 30			
	2019		2018	
	Number	Compensation	Number	Compensation
Active Members non-DROP "covered payroll"	415	\$ 28,991,522	455	\$ 29,796,947
Active Members participating in DROP	76	5,777,586	65	4,712,122
Total Payroll	<u>491</u>	<u>\$ 34,769,108</u>	<u>520</u>	<u>\$ 34,509,069</u>

FIREMEN'S 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				
	2019	2018	2017	2016	2015
Proportionate Share of the Employer's Contributions	0.13 %	0.13	0.13	0.11	0.10
Proportionate Share of the Collective Net Pension Liability	\$ 219,637	222,861	264,825	254,939	161,678
Covered Payroll	\$ 311,088	307,054	300,217	828,263	260,505
Proportionate Share of the Collective Net Pension Liability as a Percentage of its Covered Payroll	70.60 %	72.58	88.21	30.78	62.06
ERS' Fiduciary Net Position as a Percentage of the Total Pension Liability	83.02 %	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 ERS' fiscal years ended September 30, 2018, 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.

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
REQUIRED SUPPLEMENTAL INFORMATION -
GASB STATEMENT NO. 68 PENSION ELEMENTS -
SYSTEM STAFF PENSION RELATED

**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				
	2019	2018	2017	2016	2015
Contractually required contribution	\$ 38,116	38,208	40,662	39,776	38,471
Contributions in relation to the contractually required contribution	(38,116)	(38,208)	(40,662)	(39,776)	(38,471)
Contribution Excess	\$ -	-	-	-	-
Covered Payroll	\$ 311,088	307,054	300,217	828,263	260,505
Contributions as a Percentage of Covered Payroll	12.25 %	12.44	13.54	4.80	14.77

Note to schedule:

(A) Actuarial Methods and Assumptions used in Calculations of Actuarially Determined Pension Liability

Valuation date:

Actuarially determined contributions are calculated as of October 1, 2014 through 2018 (beginning of year) valuation date used to calculate the required contribution for the fiscal years ending September 30, 2015 through 2019.

Actuarial methods:

Actuarial cost method (GASB 68)	Entry Age Normal
Amortization method - 2018 and 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

Actuarial assumptions:

Inflation	2018, 2017, and 2016 - 2.5%; 2015 - 3.125%
Salary increases - 2018 and 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	2018, 2017, and 2016 - 7.5%, and 2015 - 8%, net of pension plan investment expenses
Mortality rates - ordinary - 2018, 2017, and 2016	RP-2000 healthy mortality 3 year set-forward with generational projections using scale A
Mortality rates - ordinary - 2015	1994 Group Annuity Mortality Table
Mortality rates - disability - 2018, 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

(B) 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 ERS' fiscal years ended September 30, 2014 through 2018 actuarial valuations and projected to the end of the years.

(C) 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.

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
OTHER SUPPLEMENTAL INFORMATION

OTHER SUPPLEMENTAL INFORMATION SECTION

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
OTHER SUPPLEMENTAL INFORMATION

	For The Years	
	Ended September 30	
	2019	2018
BENEFITS PAID TO RETIREES AND BENEFICIARIES		
Monthly annuity:		
Service retirees	\$ 13,988,463	13,964,865
Accidental disability	12,311,401	12,563,840
Beneficiaries	3,953,464	4,097,804
Ordinary disability	472,296	476,057
Medical, surgical, and hospital	7,437	6,904
Total Monthly Annuity	30,733,061	31,109,470
Lump sum:		
DROP	2,215,941	1,501,502
Death	48,000	44,000
Total Lump Sum	2,263,941	1,545,502
Total Benefits Paid To Retirees And Beneficiaries	\$ 32,997,002	32,654,972
 ADMINISTRATIVE EXPENSES		
Personnel costs:		
Salaries	\$ 327,404	317,224
Payroll taxes	24,122	23,035
Employee fringe benefits:		
Group benefits	51,407	50,700
Net pension expense	54,020	67,708
Total Personnel Costs	456,953	458,667
Bank charges	1,573	2,315
Building operations	15,171	13,689
Computer and website	67,142	63,328
Costs allocated from City	4,933	8,636
Depreciation	54,158	54,133
Equipment rental and maintenance	14,168	14,228
Insurance	29,444	29,540
Medical reviews, consulting, and investigations	-	2,474
Office supplies and expenses	10,981	14,461
Postage and delivery	6,150	8,078
Professional fees:		
Accounting and auditing	45,847	45,695
Actuary	45,400	49,881
Investment consultant	171,897	177,144
Legal	43,287	51,057
Property assessment	-	989
Telephone	7,833	7,015
Travel and seminars	52,288	49,057
Total Administrative Expenses	\$ 1,027,225	1,050,387

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
OTHER SUPPLEMENTAL INFORMATION

INVESTMENT MANAGEMENT AND CUSTODIAL FEES

	For The Years	
	Ended September 30	
	2019	2018
Investment management fees:		
Acadian Asset Management, LLC	\$ 171,951	224,270
Argent Capital Management, LLC	111,806	160,135
The Commerce Trust Company	49,319	44,603
Eagle Capital Management, LLC	209,706	220,074
Fisher Investments, Inc.	371,873	410,297
Intech Investment Management, LLC	93,552	104,520
Integrity Asset Management, LLC	-	130,774
Pinnacle Associates, Ltd.	159,150	183,177
Prudential Trust Company	105,354	105,950
Tortoise Capital Advisors, LLC	163,551	164,358
Total Investment Management Fees	<u>1,436,262</u>	<u>1,748,158</u>
Custodial fees:		
The Northern Trust Company	<u>217,837</u>	<u>276,194</u>
Total Investment Management And Custodial Fees	<u><u>\$ 1,654,099</u></u>	<u><u>2,024,352</u></u>

The System incurs 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:

- AJO Emerging Markets All - Cap Offshore Fund, Ltd. (Emerging Markets Fund)
- EnTrust Partners Offshore, LLC (Hedge Fund)
- Integrity Asset Management, LLC (Small Cap Equity)*
- MacKay Shields Collective Investment Trust (International Fixed Income)
- Magnitude Institutional, LLC (Hedge Fund)
- Principal U.S. Property Account (Real Estate Separate Account)

*Switched from a separately managed account to a mutual fund with fees taken through the daily NAV of the fund starting on July 1, 2018.

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
OTHER SUPPLEMENTAL INFORMATION

SUMMARY OF INSURANCE COVERAGE

<u>Type</u>	<u>Coverage</u>
Fiduciary Liability, includes claims expenses	\$ 5,000,000
Property:	
Building	\$ 518,398
Contents	\$ 516,639
General Liability:	
Per occurrence	\$ 1,000,000
Aggregate	\$ 3,000,000
Workers' Compensation and Employers Liability	Statutory \$ 1,000,000
Umbrella Liability:	
Per occurrence	\$ 1,000,000
Aggregate	\$ 3,000,000
Non-owned Automobile	\$ 1,000,000
Cyber and Privacy Liability, includes claims expenses	\$ 2,000,000
Commercial Crime - Employee Theft	\$ 300,000

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
OTHER SUPPLEMENTAL INFORMATION

HISTORICAL TREND INFORMATION

Additions to Net Position

For The Years Ended September 30	Contributions		Net Investment Income (Loss)	Total
	Employer	Members		
2019	\$ -	-	8,382,530	8,382,530
2018	2,715,141	-	24,769,748	27,484,889
2017	3,313,603	-	61,052,343	64,365,946
2016	2,715,140	-	38,641,812	41,356,952
2015	-	-	(11,079,856)	(11,079,856)
2014	1,007,760	-	48,876,120	49,883,880
2013 (A)	20,998,953	944,098	65,779,337	87,722,388
2012	21,680,123	2,569,508	71,064,693	95,314,324
2011	23,071,773	2,747,934	3,739,397	29,559,104
2010	17,854,546	2,942,373	33,298,179	54,095,098

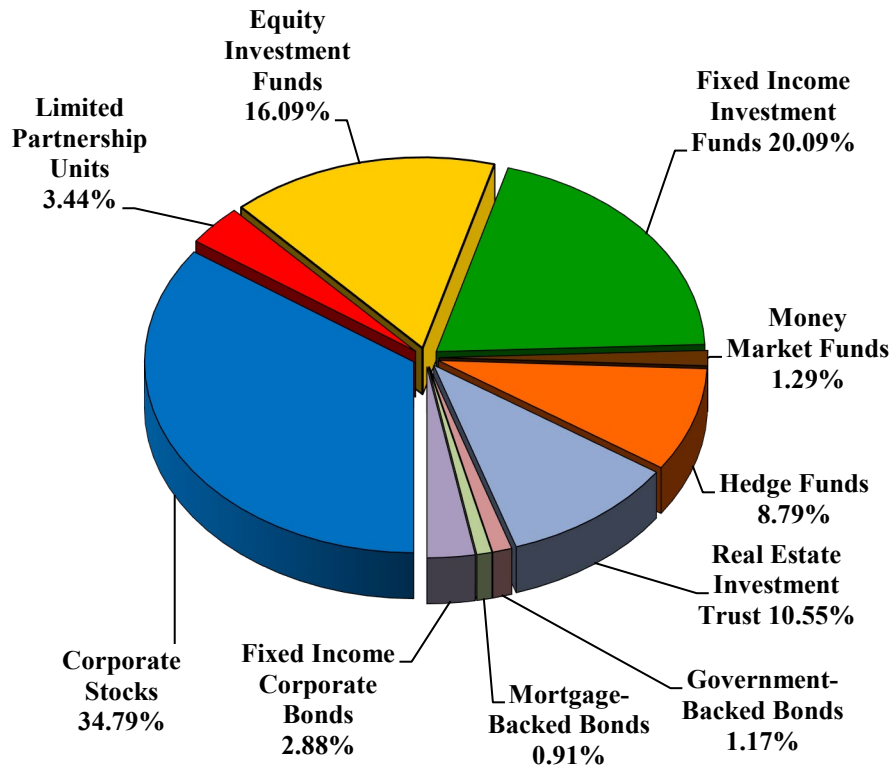
Deductions from Net Position

For The Years Ended September 30	Benefits Paid	Refunds Of Members Contributions	Admini- strative Expenses	Total
2019	\$ 32,997,002	2,027,172	1,027,225	36,051,399
2018	32,654,972	649,093	1,050,387	34,354,452
2017	32,324,876	816,435	1,067,626	34,208,937
2016	32,154,888	1,278,330	1,095,335	34,528,553
2015	33,864,793	1,294,477	1,593,979	36,753,249
2014	34,416,962	1,205,393	1,424,217	37,046,572
2013	34,535,838	3,260,793	1,730,087	39,526,718
2012	33,371,985	2,303,658	1,579,936	37,255,579
2011	32,030,971	2,191,639	1,162,784	35,385,394
2010	34,661,065	1,639,211	1,174,231	37,474,507

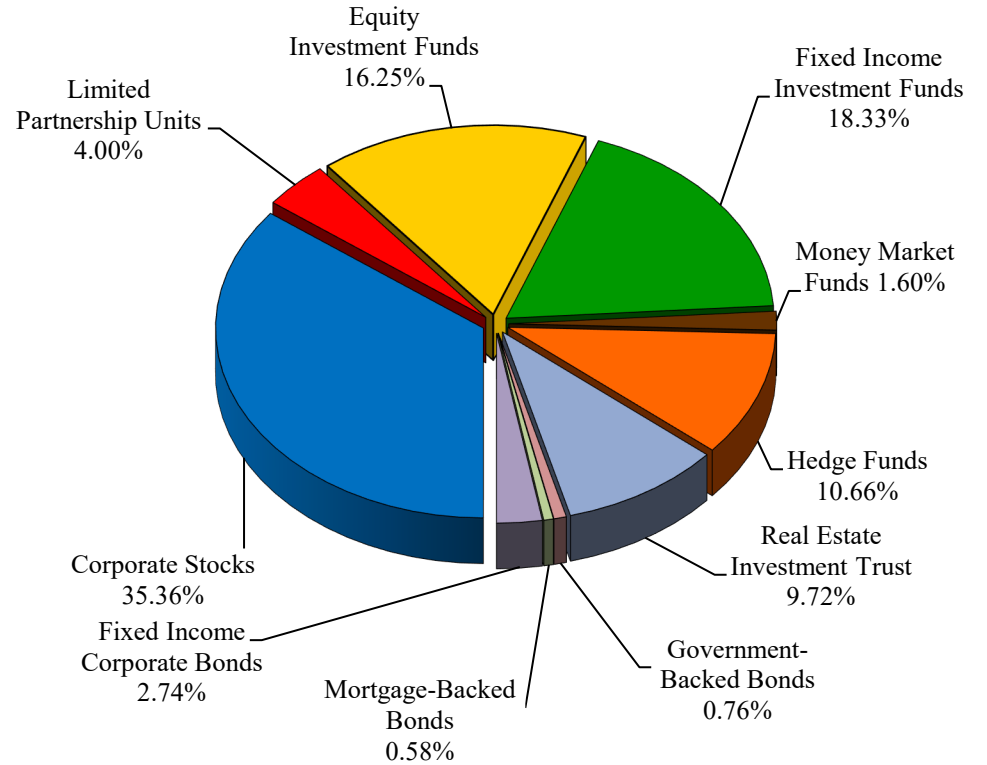
(A) The City's contribution for the year ended September 30, 2013 was recalculated to be \$9,803,957 for BB 109 and \$10,278,591 was transferred out during the year ended September 30, 2014.

FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS

INVESTMENTS



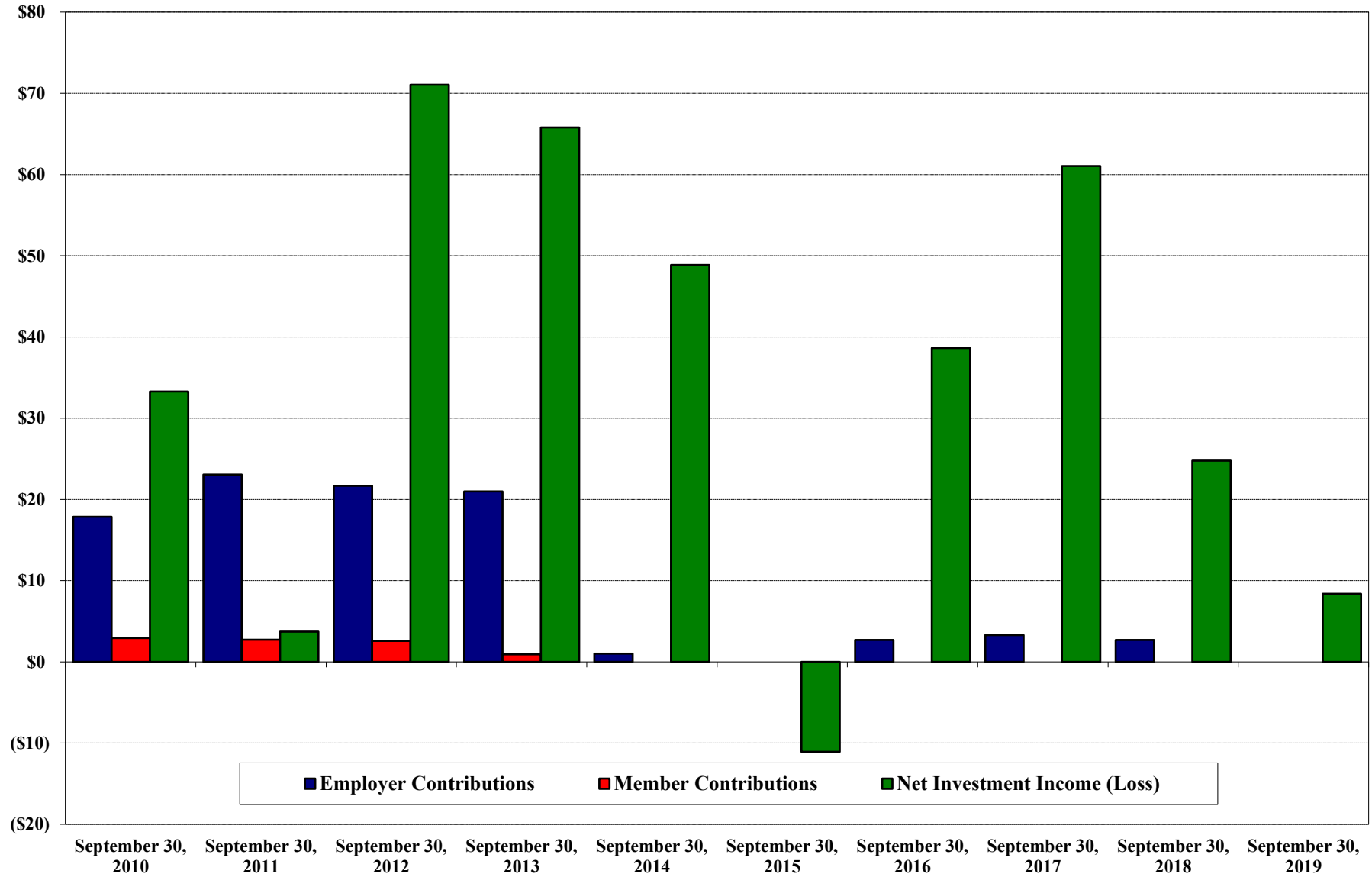
September 30, 2019



September 30, 2018

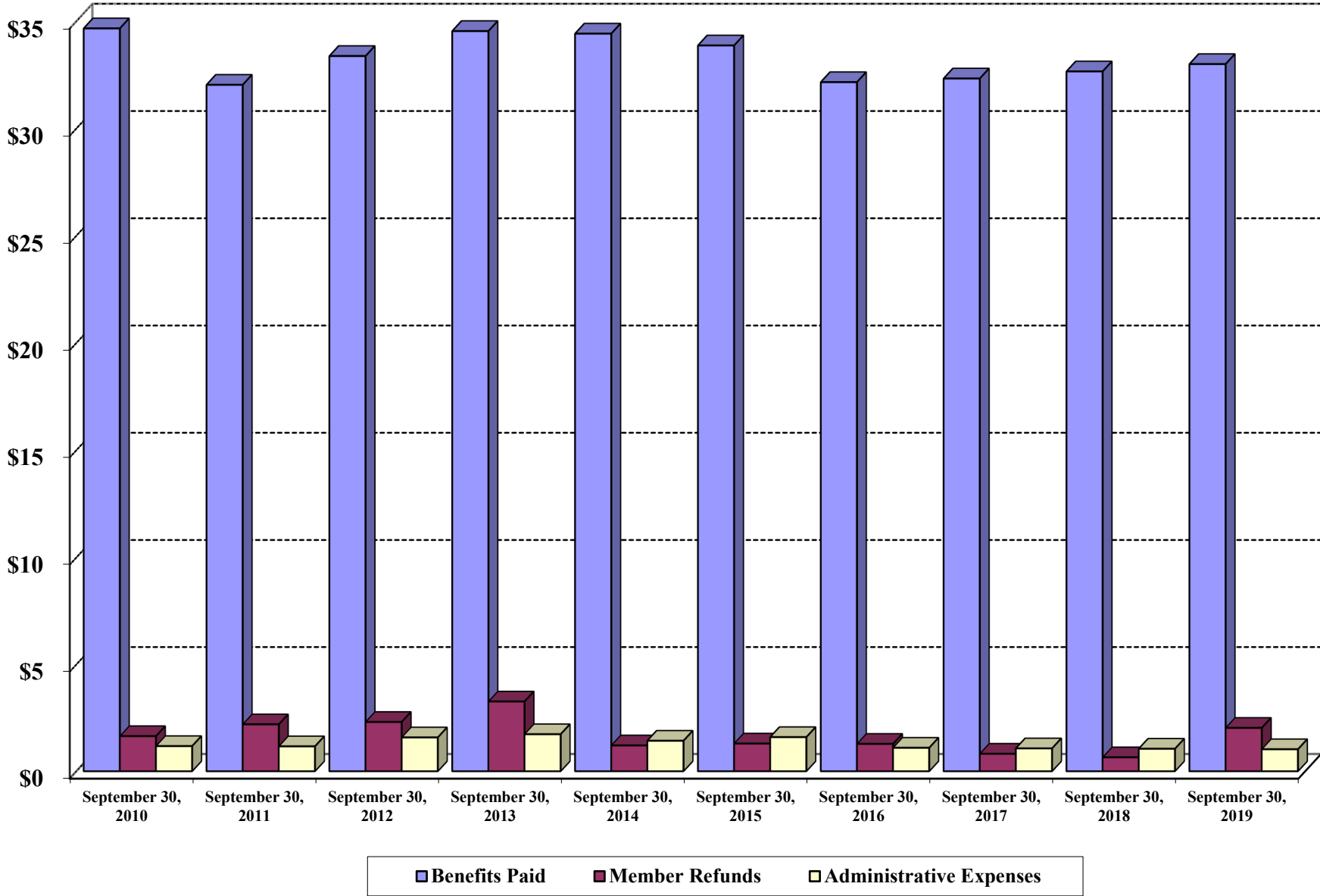
FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
ADDITIONS TO NET POSITION
FOR THE YEARS ENDED

\$ In Millions



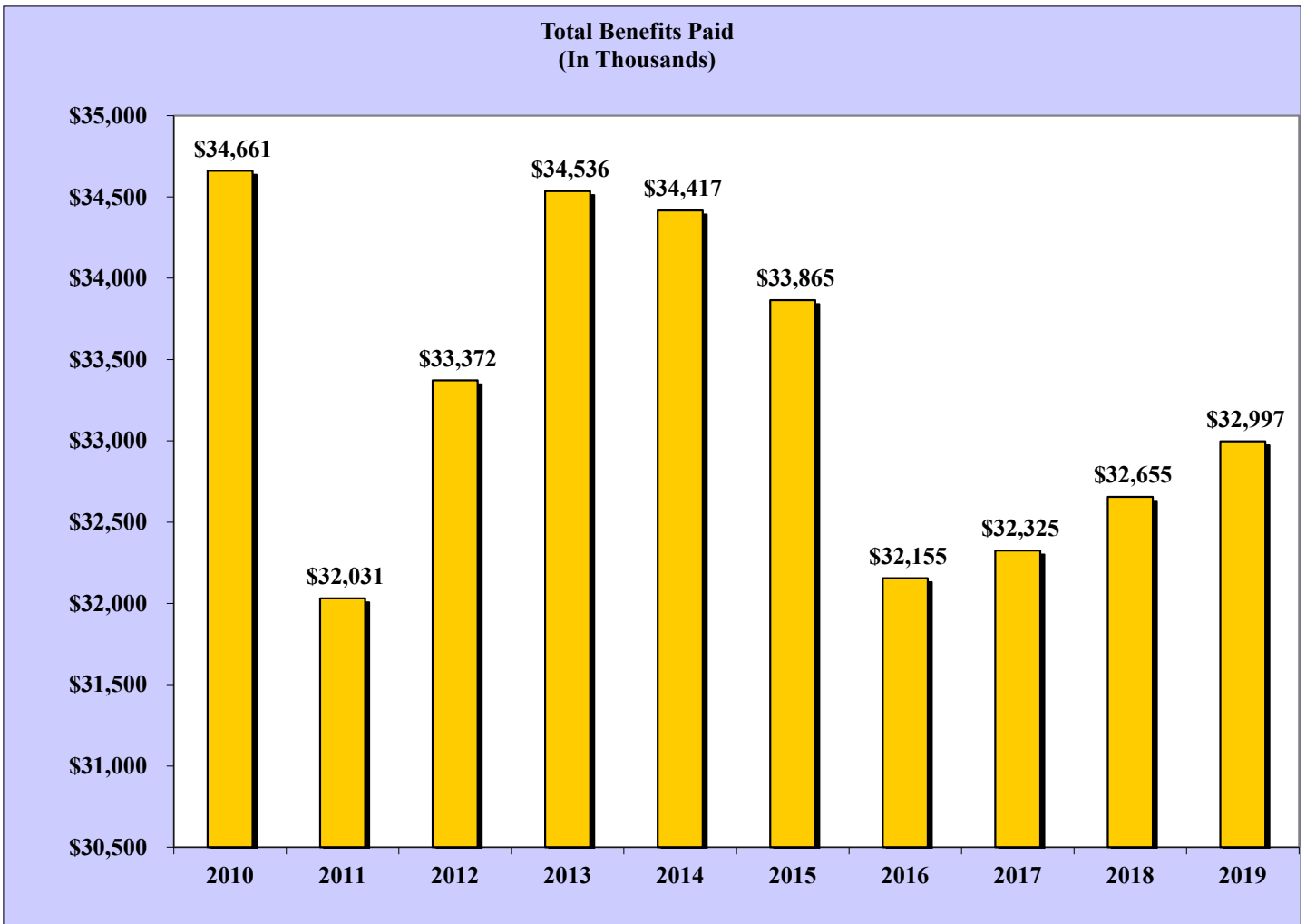
FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
DEDUCTIONS FROM NET POSITION
FOR THE YEARS ENDED

\$ In Millions



FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS
BENEFITS PAID BY TYPE

For The Fiscal Years Ended	Service Retirees*	Accidental Disability	Beneficiaries	Ordinary Disability	Death	Medical, Surgical, And Hospital	Total
2010	\$ 17,928,029	13,104,610	3,196,489	355,068	58,000	18,869	34,661,065
2011	14,987,429	13,082,602	3,485,580	399,310	62,000	14,050	32,030,971
2012	16,110,010	13,184,657	3,543,043	464,060	56,000	14,215	33,371,985
2013	16,948,351	13,228,482	3,788,048	495,398	64,000	11,559	34,535,838
2014	16,606,662	13,155,325	3,999,493	587,993	58,000	9,489	34,416,962
2015	16,353,491	12,930,902	3,935,283	584,622	52,000	8,495	33,864,793
2016	15,120,366	12,583,999	3,898,375	493,231	50,000	8,917	32,154,888
2017	14,668,199	13,067,252	4,056,421	474,736	48,000	10,268	32,324,876
2018	15,466,367	12,563,840	4,097,804	476,057	44,000	6,904	32,654,972
2019	16,204,404	12,311,401	3,953,464	472,296	48,000	7,437	32,997,002



*Includes DROP benefit payments.

INTERNAL CONTROL AND COMPLIANCE SECTION

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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, 2020

The Board of Trustees
FIREMEN'S 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 **FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS** (the System), a Pension Trust Fund of the City of St. Louis, Missouri, as of and for the year ended September 30, 2019, and the related notes to the financial statements, which collectively comprise the System's basic financial statements and have issued our report thereon dated February 6, 2020.

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.

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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