



## **THE POLICE RETIREMENT SYSTEM OF ST. LOUIS**

**REPORT ON ELEMENTS OF GOVERNMENTAL  
ACCOUNTING STANDARDS BOARD STATEMENT NO. 68  
(GASB 68) ACTUARIAL VALUATION**

Fiscal Year Ended September 30, 2020

**THE POLICE RETIREMENT SYSTEM OF ST. LOUIS**  
**REPORT ON ELEMENTS OF GASB 68**

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

## **INDEPENDENT AUDITOR'S REPORT**

April 21, 2021

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

### **REPORT ON THE SCHEDULES**

We have audited the accompanying schedule of changes in net pension liability of **THE POLICE RETIREMENT SYSTEM OF ST. LOUIS** (the System) as of and for the year ended September 30, 2020, and the related notes. We have also audited deferred outflows of resources, deferred inflows of resources, and pension expense included in the accompanying schedules of other pension amounts of the System as of and for the year ended September 30, 2020, and the related notes.

### **Management's Responsibility for the Schedules**

Management is responsible for the preparation and fair presentation of these schedules 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 the schedules that are free from material misstatement, whether due to fraud or error.

### **Auditor's Responsibility**

Our responsibility is to express opinions on the schedule of changes in net pension liability and schedules of other pension amounts based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the schedule of changes in net pension liability and schedules of other pension amounts are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the schedule of changes in net pension liability and schedules of other pension amounts. The procedures selected depend on the auditor's judgment, including the assessment of the risk of material misstatement of the schedule of changes in net pension liability and schedules of other pension amounts, whether due to fraud or

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error. In making those risk assessments, the auditor considers internal control relevant to the system's preparation and fair presentation of the schedule of changes in net pension liability and schedules of other pension amounts 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 schedule of changes in net pension liability and schedules of other pension amounts.

We have relied on Cheiron's actuarial report titled *GASB 67/68 Report* as of September 30, 2020 for the actuarially determined amounts in these schedules and notes to the schedules. Cheiron provided a certification for this report dated February 24, 2021.

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

### **Opinion**

In our opinion, the schedules referred to above present fairly, in all material respects, the City of St. Louis, Missouri (the employer) allocations and net pension liability, total deferred outflows of resources excluding employer specific amounts, total deferred inflows of resources excluding employer specific amounts, and pension expense for the System as of and for the year ended September 30, 2020, in accordance with accounting principles generally accepted in the United States of America.

### **Other Matters**

The supplemental information, as listed in the table of contents, is presented for purposes of additional analysis and is not a required part of this report. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and actuarial information and records used to prepare the report schedules. Such information has been subjected to the auditing procedures applied in the audits of the report schedules and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and actuarial records used to prepare the report schedules, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplemental information is fairly stated, in all material respects, in relation to the report schedules.

We have audited, 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*, the financial statements of the System as of and for the year ended September 30, 2020, and our report thereon dated February 24, 2021, expressed an unmodified opinion on those financial statements.

### **Restriction on Use**

Our report is intended solely for the information and use of the Board of Trustees, the System's management, the City of St. Louis, and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

*Hochschild, Bloom & Company LLP*

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

**THE POLICE RETIREMENT SYSTEM OF ST. LOUIS**  
**SCHEDULE OF CHANGES IN NET PENSION LIABILITY**

	<b>For The Year Ended September 30, 2020</b>		
	<b>Total Pension Liability (a)</b>	<b>System's Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a)-(b)</b>
<b>Balance at September 30, 2019</b>	\$ 1,111,624,766	784,752,472	326,872,294
<b>Changes for the Year</b>			
Service cost	18,188,606	-	18,188,606
Interest on total pension liability, including service cost	72,663,853	-	72,663,853
Benefit changes	-	-	-
Differences between expected and actual experience	(16,422,842)	-	(16,422,842)
Assumption changes	42,292,759	-	42,292,759
Contributions:			
Employer	-	35,335,830	(35,335,830)
Members, including portability and restoration	-	6,169,551	(6,169,551)
Net investment income	-	43,802,433	(43,802,433)
Benefit payments	(65,762,646)	(65,762,646)	-
Refunds of Members' contributions	(4,201,135)	(4,201,135)	-
Administrative expenses	-	(1,446,227)	1,446,227
Net Changes	46,758,595	13,897,806	32,860,789
<b>Balance at September 30, 2020</b>	\$ 1,158,383,361	798,650,278	359,733,083
<b>Reconciliation of Net Pension Liability:</b>			
Net pension liability, September 30, 2019			\$ 326,872,294
Changes for the year:			
Pension expense			46,378,876
Change in deferred outflows (inflows) of resources			21,817,743
Employer contributions			(35,335,830)
Net Changes			32,860,789
Net Pension Liability, Septem- ber 30, 2020			\$ 359,733,083

See notes to schedules

**THE POLICE RETIREMENT SYSTEM OF ST. LOUIS**  
**SCHEDULES OF OTHER PENSION AMOUNTS**

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**SCHEDULE OF DEFERRED OUTFLOWS AND INFLOWS OF RESOURCES**

	<b>September 30 2020</b>
	<hr/>
<b>Deferred outflows (inflows) of resources:</b>	
Net difference between projected and actual earnings on pension plan investments	\$ 29,980,938
Changes in assumptions	48,001,188
Differences between expected and actual liability experience	<u>(3,330,351)</u>
 Net Deferred Outflows (Inflows) Of Resources, September 30, 2020	 <u>\$ 74,651,775</u>
	  <b>For The Year Ended September 30 2020</b>
	<hr/>
<b>Reconciliation of net deferred outflows (inflows) of resources:</b>	
Net deferred outflows (inflows) of resources, September 30, 2019	<u>\$ 52,834,032</u>
 Changes in components of deferred outflows (inflows) of resources consist of:	
Difference between projected and actual earnings on pension plan investments	13,952,852
Actuarial assumption changes	42,292,759
Differences between expected and actual liability experience	<u>(16,422,842)</u>
	39,822,769
Recognition of deferred outflows (inflows)	<u>18,005,026</u>
Change In Deferred Outflows (Inflows) Of Resources	<u>21,817,743</u>
 Net Deferred Outflows (Inflows) Of Resources, September 30, 2020	 <u>\$ 74,651,775</u>

**THE POLICE RETIREMENT SYSTEM OF ST. LOUIS**  
**SCHEDULES OF OTHER PENSION AMOUNTS**

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**SCHEDULE OF PENSION EXPENSE**

	<b>For The Year Ended September 30 2020</b>
<b>Pension expense:</b>	
Operating expenses:	
Service cost	\$ 18,188,606
Members' contributions, including portability and restoration	(6,169,551)
Administrative expenses	1,446,227
Total Operating Expenses	<u>13,465,282</u>
Financing expenses:	
Interest on total pension liability, including service cost	72,663,853
Expected return on investment assets	<u>(57,755,285)</u>
Total Financing Expenses	<u>14,908,568</u>
Recognition of deferred outflows (inflows):	
Recognition of investment gains and losses	3,434,943
Recognition of assumption changes	14,054,998
Recognition of liability experience gains and losses	515,085
Total Recognition Of Deferred Outflows (Inflows)	<u>18,005,026</u>
 Pension Expense	 <u>\$ 46,378,876</u>
 <b>Reconciliation of pension expense:</b>	
Change in net pension liability	\$ 32,860,789
Change in deferred outflows (inflows) of resources	(21,817,743)
Employer contributions	<u>35,335,830</u>
 Pension Expense	 <u>\$ 46,378,876</u>

**THE POLICE RETIREMENT SYSTEM OF ST. LOUIS**  
**NOTES TO SCHEDULE OF CHANGES IN NET PENSION LIABILITY**  
**AND SCHEDULES OF OTHER PENSION AMOUNTS**

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**NOTE A - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

The significant accounting policies consistently applied by **THE POLICE RETIREMENT SYSTEM OF ST. LOUIS** (the System) in the preparation of the accompanying schedules are summarized as follows:

**1. Reporting Entity**

The System administers a single-employer, defined benefit pension plan providing benefits to the City of St. Louis (the City) police officers (Members). 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 are not financially accountable for any other entities or other organizations.

**2. Basis of Accounting**

The System uses the accrual basis of accounting.

**3. Net Pension Liability**

Net pension liability represents the actuarially computed liability of the employer for accrued vested benefits provided through a defined benefit pension plan. It is calculated as the total pension liability less the System's fiduciary net position.

**4. Use of Estimates in the Preparation of the Schedules**

The preparation of the schedules in conformity with accounting principles generally accepted in the United States of America requires management and the System's Actuary to make estimates and assumptions that affect certain amounts and disclosures. Actual results could differ from those estimates.

**5. Fair Value Measurements**

The System follows guidance issued by accounting principles generally accepted in the United States of America on fair value measurements, which establishes a framework for measuring fair value. This guidance applies whenever fair value is an applicable measurement.

**6. Deferred Outflows of Resources and Deferred Inflows of Resources**

Deferred outflows of resources represent consumption of net assets by a government employer that is applicable to a future reporting period. In accordance with GASB 68, these include demographic experience losses due to differences between expected and actual actuarial assumptions on the total pension liability, actuarial assumption changes increasing the total pension liability, or investment earnings that are below projected earnings. These outflows will be recognized in future reporting periods.

**THE POLICE RETIREMENT SYSTEM OF ST. LOUIS**  
**NOTES TO SCHEDULE OF CHANGES IN NET PENSION LIABILITY**  
**AND SCHEDULES OF OTHER PENSION AMOUNTS**

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**NOTE A - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

**6. Deferred Outflows of Resources and Deferred Inflows of Resources (Continued)**

Deferred inflows of resources represent an acquisition of net assets by a government employer that is applicable to a future reporting period. In accordance with GASB 68, these include experience gains due to differences between expected and actual actuarial assumptions on the total pension liability, actuarial assumption changes reducing the total pension liability, or investment earnings that are greater than projected earnings. These inflows will be recognized in future reporting periods.

The City will need to calculate an additional type of deferred outflows of resources for contributions made to the System subsequent to the measurement date and before the end of the City's reporting period.

The City is solely responsible for its financial statements and, therefore, is responsible for evaluating the information used to recognize and disclose pension amounts in its financial statements. Similarly, the City's auditor is solely responsible for the audit of the City's financial statements and, therefore, is responsible for determining the sufficiency of audit evidence necessary to reduce audit risk to the appropriate level. Nevertheless, the City and their auditor may use the System's report to provide evidence that the pension amounts are not materially misstated.

The impact of the difference between projected and actual investment gains or losses on pension plan investments is recognized over a period of 5 years. During the measurement year, there was an actuarial investment loss of approximately \$14.0 million. Approximately \$2.8 million of that loss was recognized in the current year and an identical amount will be recognized in each of the next 4 years. Combined with \$18.8 million of unrecognized investment losses from prior years, this results in a deferred outflow of resources of approximately \$30.0 million.

The decrease in the blended discount rate assumption caused an increase in the net pension liability during the measurement year and increased the deferred outflows of resources by approximately \$42.3 million. Approximately \$14.1 million of this amount was recognized in the current year and an identical amount will be recognized in each of the next 2 years. This combined with \$19.8 million of net unrecognized assumption changes (an increase in the net pension liability from prior years) resulted in a deferred outflows of resources of approximately \$48.0 million.

The impact of experience gains or losses and assumption changes on the total pension liability are recognized in the pension expense over the average expected remaining service life of all active and inactive members of the System. As of the measurement date, this recognition period was 2.98 years (rounded to 3 years). There was an experience gain of approximately \$16.4 million in the current year of which \$5.5 million of that gain was recognized in the current year and an identical amount will be recognized in the next 2 years. Combined with \$7.6 million of unrecognized experience loss from prior year, this resulted in a deferred inflow of resources of approximately \$3.3 million.

**THE POLICE RETIREMENT SYSTEM OF ST. LOUIS**  
**NOTES TO SCHEDULE OF CHANGES IN NET PENSION LIABILITY**  
**AND SCHEDULES OF OTHER PENSION AMOUNTS**

**NOTE A - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

**6. Deferred Outflows of Resources and Deferred Inflows of Resources (Continued)**

Amounts reported as net deferred outflows (inflows) of resources will be recognized in the City's pension expense as follows:

<b>For The Years Ending September 30</b>	<b>Net Outflows (Inflows) From Investment (Gains) And Losses</b>	<b>Net Outflows (Inflows) From Assumption Changes</b>	<b>Net Outflows (Inflows) From Experience Gains</b>	<b>Total Net Outflows (Inflows)</b>
2021	\$ 3,957,563	33,903,601	2,143,929	40,005,093
2022	12,215,801	14,097,587	(5,474,280)	20,839,108
2023	11,017,002	-	-	11,017,002
2024	2,790,572	-	-	2,790,572
Total	<u>\$ 29,980,938</u>	<u>48,001,188</u>	<u>(3,330,351)</u>	<u>74,651,775</u>

**7. Pension Expense**

Pension expense represents the economic cost of pensions that an entity recognizes during a reporting period. Pension expense is calculated in two different ways. First, it is calculated as the change in the amounts reported on the City's statement of net position that relate to the System and are not attributable to employer contributions. Therefore, it includes: 1) change in net pension liability, 2) change in deferred outflows (inflows) of resources, and 3) plus employer contributions.

The pension expense can also be calculated by its individual components as shown in the schedule of pension expense. Operating expenses include service cost less employee contributions and administrative expenses, collectively the cost of operating the System for the year. Financing expenses include interest on the total pension liability and interest on service costs, less the expected return on investment assets. The changes component of the pension expense calculation represents the items that drive the volatility in pension expense from year to year. Changes include benefit changes, recognized amounts due to assumption changes, recognized amounts from experience gains or losses on the total pension liability, and recognized amounts of differences in expected and actual investment gains or losses.

Changes in benefits must be enacted by the General Assembly of the State of Missouri. There were no changes in benefits during the year ended September 30, 2020.

**THE POLICE RETIREMENT SYSTEM OF ST. LOUIS**  
**NOTES TO SCHEDULE OF CHANGES IN NET PENSION LIABILITY**  
**AND SCHEDULES OF OTHER PENSION AMOUNTS**

**NOTE B - ACTUARIAL METHODS AND ASSUMPTIONS**

The following are the actuarial methods and assumptions that were used in the measurements of the pension liability:

**Actuarial methods:**

Valuation date	October 1, 2020
Timing	Actuarially determined contributions are calculated based on the actuarial valuation at the beginning of the plan year
Actuarial cost method:	
GASB 67 and 68 reporting	Entry Age Normal
Funding requirements	Aggregate, reduced by employee contributions
Amortization method/period	None - Aggregate is funded over the future working lifetime of current participants
Asset valuation method	5-year smoothed market

**Actuarial assumptions:**

Investment rate of return	7.5%, net of 0.15% administrative expenses
Long-term municipal bond rate	2.21%
Rate of payroll growth	Varies by age 3% to 6.25%, including merit and promotions
Consumer price inflation	2.5%
Mortality (ordinary)	RP-2014 Blue collar projected generationally with MP-2015
Mortality (retiree)	RP-2014 Blue collar projected generationally MP-2015 with 1.15 adjustment
Mortality (accidental)	0.03% per year for all ages in addition to ordinary mortality
Mortality (disabled)	RP-2014 disabled retiree projected generationally the MP-2015 with 0.9 adjustment male and no adjustment female

The actuarial assumptions were last updated as a result of the experience study performed by Cheiron for the five-year period ending September 30, 2015. The mortality, termination, DROP and retirement, DROP reentry, investment return, salary increase, and administrative expense assumptions have not changed since the October 1, 2016 actuarial valuation when the results of the experience study were first approved and became effective.

**Discount Rate**

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 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 high grade bond muni-bond rate for periods after the PNP is exhausted. The System currently uses the long-term discount rate of 7.5% and expects assets will be sufficient to cover PNP until 2066. The muni-bond rate used in the valuation was 2.21% and is based on the Bond Buyers General Obligation 20 Year High Grade Rate Municipal Bond Index (AA/Aa or higher). Since the PNP was projected to be insufficient to make all projected benefit payments of current Members, a blended discount rate of 6.33% was used to calculate the present value of future benefit payments.

**THE POLICE RETIREMENT SYSTEM OF ST. LOUIS**  
**NOTES TO SCHEDULE OF CHANGES IN NET PENSION LIABILITY**  
**AND SCHEDULES OF OTHER PENSION AMOUNTS**

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**NOTE B - ACTUARIAL METHODS AND ASSUMPTIONS (Continued)**

**Proposition P**

In November 2017, Proposition P was passed by City voters which approved a 0.5% sales tax earmarked for City law enforcement and firefighter needs “public safety”. This allowed for pay increases for the City’s police officers to take effect during 2018 (a one-time \$6 thousand pay increase), which impacted the System’s pension liability in the October 1, 2018 actuarial valuation, increasing the September 30, 2019 pension liability (difference between expected and actual experience) by \$36.5 million.

**NOTE C - RISKS AND UNCERTAINTIES**

**Experience Risks**

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.

**Economic Conditions**

During the calendar year 2020, the World Health Organization announced a global health emergency from a new strain of coronavirus (COVID-19) that has resulted in a global pandemic outbreak. This pandemic has adversely affected global economic activity and greatly contributed to uncertainty and instability in the global financial markets.

**NOTE D - ADDITIONAL FINANCIAL AND ACTUARIAL INFORMATION**

Additional financial and actuarial information supporting the preparation of the schedules is included in the System’s annual financial report for the year ended September 30, 2020 and the actuarial valuation report as of October 1, 2020. These reports can be obtained at [www.stlouisprs.org](http://www.stlouisprs.org) or from:

Mark Lawson, J.D., Executive Director  
The Police Retirement System of St. Louis  
2020 Market Street  
St. Louis, MO 63103-2210

**SUPPLEMENTAL INFORMATION SECTION**

SCHEDULE OF CHANGES IN NET PENSION LIABILITY - COMPARATIVE BY YEAR

	For The Years Ended September 30						
	2020	2019	2018	2017	2016	2015	2014
<b>Discount Rate Assumption "Blended"</b>	6.33 %	6.69	7.24	6.67	6.19	7.29	7.48
<b>Total Pension Liability (A)</b>							
Service cost	\$ 18,188,606	15,678,890	16,369,318	17,988,134	12,617,971	12,977,679	12,991,999
Interest on total pension liability, including service cost	72,663,853	71,309,613	68,899,130	66,042,714	67,036,489	66,579,275	65,906,383
Benefit changes	-	-	-	-	-	-	-
Differences between expected and actual experience	(16,422,842)	22,854,628	(4,886,531)	3,911,067	(3,684,265)	(2,041,444)	-
Assumption changes	42,292,759	59,418,045	(59,545,809)	(55,153,649)	131,846,504 (D)	16,248,637	6,650,362
Benefit payments	(65,762,646)	(63,865,309)	(63,603,561)	(59,959,184)	(59,673,662)	(67,107,828)	(58,302,794)
Refunds of Members' contributions	(4,201,135)	(4,683,627)	(4,972,550)	(3,493,396)	(2,963,770)	(2,425,249)	(2,670,671)
Net Change In Total Pension Liability	46,758,595	100,712,240	(47,740,003)	(30,664,314)	145,179,267	24,231,070	24,575,279
Total Pension Liability Beginning	1,111,624,766	1,010,912,526	1,058,652,529	1,089,316,843	944,137,576	919,906,506	895,331,227
Total Pension Liability Ending (a)	\$ 1,158,383,361	1,111,624,766	1,010,912,526	1,058,652,529	1,089,316,843	944,137,576	919,906,506
<b>System's Fiduciary Net Position</b>							
Contributions - Employer	\$ 35,335,830	35,970,630	33,104,561	33,826,528	30,778,664	30,600,069	32,324,823
Contributions - Members	6,169,551 (F)	5,228,438	5,129,154 (E)	4,653,968	4,376,867	4,487,942	4,438,346
Net investment income (loss)	43,802,433	17,514,881	51,089,258	93,520,079	52,927,643	(8,325,611)	48,094,636
Benefit payments	(65,762,646)	(63,865,309)	(63,603,561)	(59,959,184)	(59,673,662)	(67,107,828)	(58,302,794)
Refunds of Members' contributions	(4,201,135)	(4,683,627)	(4,972,550)	(3,493,396)	(2,963,770)	(2,425,249)	(2,670,671)
Administrative expenses	(1,446,227)	(1,572,951)	(1,165,930)	(1,206,161)	(1,102,866)	(1,125,310)	(1,095,653)
Net Change In System's Fiduciary Net Position	13,897,806	(11,407,938)	19,580,932	67,341,834	24,342,876	(43,895,987)	22,788,687
System's Fiduciary Net Position Beginning	784,752,472	796,160,410	776,579,478	709,237,644	684,894,768	728,790,755 (C)	706,276,668
System's Fiduciary Net Position Ending (b)	\$ 798,650,278	784,752,472	796,160,410	776,579,478	709,237,644	684,894,768	729,065,355
<b>Net Pension Liability Ending (a)-(b)</b>	\$ 359,733,083	326,872,294	214,752,116	282,073,051	380,079,199	259,242,808	190,841,151

Notes:

- (A) The total pension liability as of the end of each measurement year is measured as of the measurement date (October 1) at the beginning of each year and projected to the end of each year.
- (B) Because the beginning and ending values are based on the same actuarial valuation (September 30, 2013) and there were no significant events, no liability gains or losses due to experience are reported for the year ended September 30, 2014.
- (C) The September 30, 2014 System's fiduciary net position was restated (decreased) by \$274,600 from recording the beginning net pension liability resulting from implementing GASB 68 for the System's staff participation in ERS during the year ended September 30, 2015.
- (D) The actuarial assumptions were updated based on an actuarial experience review for the period October 1, 2010 through September 30, 2015, and were first effective with the actuarial valuation as of October 1, 2016.
- (E) Proposition P wage increase became effective in July 2018.
- (F) There were Member contributions for 27 payroll periods received during the fiscal year ending September 30, 2020, which happens every 11 years. There were 26 payroll periods during all other fiscal years presented.

**THE POLICE RETIREMENT SYSTEM OF ST. LOUIS**  
**SUPPLEMENTAL INFORMATION**

**SCHEDULE OF ACTIVITY OF DEFERRED OUTFLOWS (INFLOWS) OF RESOURCES BY SOURCE BY FISCAL YEAR ESTABLISHED**

	Amortization Factor In Years	For The Year Ended September 30, 2020				Future Recognition In City's Pension Expenses				
		Balance 9/30/2019	Increase (Decrease)	Recognized	Net Change	Balance 9/30/2020	2021	2022	2023	2024
<b>Investment (gains) losses</b>										
2016	5	\$ (522,618)	-	522,618	522,618	-	-	-	-	-
2017	5	(16,516,476)	-	8,258,239	8,258,239	(8,258,237)	(8,258,237)	-	-	-
2018	5	3,596,401	-	(1,198,800)	(1,198,800)	2,397,601	1,198,800	1,198,801	-	-
2019	5	32,905,722	-	(8,226,430)	(8,226,430)	24,679,292	8,226,430	8,226,430	8,226,432	-
2020	5	-	13,952,852	(2,790,570)	11,162,282	11,162,282	2,790,570	2,790,570	2,790,570	2,790,572
		<u>19,463,029</u>	<u>13,952,852</u>	<u>(3,434,943)</u>	<u>10,517,909</u>	<u>29,980,938</u>	<u>3,957,563</u>	<u>12,215,801</u>	<u>11,017,002</u>	<u>2,790,572</u>
<b>Assumption changes</b>										
2018	3	(19,848,603)	-	19,848,603	19,848,603	-	-	-	-	-
2019	3	39,612,030	-	(19,806,015)	(19,806,015)	19,806,015	19,806,015	-	-	-
2020	3	-	42,292,759	(14,097,586)	28,195,173	28,195,173	14,097,586	14,097,587	-	-
		<u>19,763,427</u>	<u>42,292,759</u>	<u>(14,054,998)</u>	<u>28,237,761</u>	<u>48,001,188</u>	<u>33,903,601</u>	<u>14,097,587</u>	<u>-</u>	<u>-</u>
<b>Experience (gains) losses</b>										
2018	3	(1,628,843)	-	1,628,843	1,628,843	-	-	-	-	-
2019	3	15,236,419	-	(7,618,209)	(7,618,209)	7,618,210	7,618,210	-	-	-
2020	3	-	(16,422,842)	5,474,281	(10,948,561)	(10,948,561)	(5,474,281)	(5,474,280)	-	-
		<u>13,607,576</u>	<u>(16,422,842)</u>	<u>(515,085)</u>	<u>(16,937,927)</u>	<u>(3,330,351)</u>	<u>2,143,929</u>	<u>(5,474,280)</u>	<u>-</u>	<u>-</u>
Totals		<u>\$ 52,834,032</u>	<u>39,822,769</u>	<u>(18,005,026)</u>	<u>21,817,743</u>	<u>74,651,775</u>	<u>40,005,093</u>	<u>20,839,108</u>	<u>11,017,002</u>	<u>2,790,572</u>

Note: Deferrals are related to future periods with recognition using amortization factors starting with year established:

Investment (gains) losses - 5-year smoothed

Assumption changes - average remaining service lives of current active Members of 2.98 years for 2020 (rounded to the nearest year - 3-year smoothed)

Experience (gains) losses - average remaining service lives of current active Members of 2.98 years for 2020 (rounded to the nearest year - 3-year smoothed)