



THE INITIAL ACTUARIAL VALUATION FOR
CITY OF KIRKWOOD
AS OF MARCH 31, 2017

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May 22, 2017

City of Kirkwood
Kirkwood, Missouri

Ladies and Gentlemen:

Submitted in this report are the results of the actuarial valuation prepared to determine the employer contribution rates required to support, for your employees, the benefits provided by the Missouri Local Government Employees Retirement System (LAGERS). This report contains the information needed to comply with Missouri state disclosure requirements regarding the adoption of LAGERS benefits by a political subdivision (Sections 105.660 - 106.685 RSMo).

The contribution requirement for benefits likely to accrue as a result of the future service of your employees is described on pages 4 thru 11 as the current cost plus the disability cost. This contribution rate, expressed as a percent of active employee payroll, will depend on the benefit program adopted.

The contribution requirement to pay for benefits likely to result from service rendered by your employees before you join LAGERS is described on pages 4 thru 11 as the prior service cost. The value established for prior service is called the unfunded actuarial accrued liability (these amounts are further described in Appendix I). The prior service cost is the rate of contribution designed to pay for the unfunded actuarial accrued liability over a period of not more than 30 years.

Section 70.730 of the Revised Statutes of Missouri requires participating employers to contribute the current cost, disability cost, and prior service cost (the total employer cost as shown on pages 4 thru 11). These contributions are mandatory after official action has been taken to join the System.

The total annual dollar costs shown on pages 12 and 13 represent the dollar cost of each benefit program for a one year period based on the payroll reported for this actuarial valuation. In budgeting amounts for LAGERS contributions you should consider any changes in payroll which have been made since data was submitted for the valuation and any changes anticipated to be made before the end of the period for which you are preparing the budget.

The actuarial assumptions and methods used to determine the stated costs are described in Appendix II of this report. In our opinion, they do produce results which, in the aggregate, are reasonable. Additional miscellaneous and technical assumptions as well as disclosures required by the actuarial standards of practice may be found in the LAGERS Compiled Annual Actuarial Valuation report as of February 29, 2016.

The computed contributions required for LAGERS participation will permit the System to continue to operate in accordance with the actuarial principles of level cost financing and the state law which governs LAGERS. Summary provisions of the law as well as benefit illustrations can be found in Appendices III and IV.

Projections needed to comply with Missouri state disclosure requirements (Section 105.665 of the RSMo) regarding the adoption of LAGERS benefits by a political subdivision are available upon request from LAGERS.

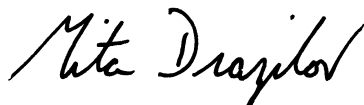
Please note that this entire report must be available as public information for at least 45 calendar days prior to the date final official action is taken by your governing body to join the System. You may wish to make notice of this report in the official minutes of the next meeting of your governing body. This action would not be binding on your subdivision, yet would establish the beginning date of the 45 day waiting period.

In accordance with LAGERS Board policy, the employer contribution rates established by this valuation report are valid for purposes of joining the System for a two year period from the date of this valuation which was March 31, 2017. The valuation was based on data furnished from your records concerning individual employees (see Appendix V).

If you have any questions concerning this report or LAGERS in general, please contact the LAGERS office in Jefferson City.

Mita Drazilov is a member of the American Academy of Actuaries and meets the Qualification Standards of the Academy of Actuaries to render the actuarial opinion herein.

Respectfully submitted,

A handwritten signature in black ink that reads "Mita Drazilov". The signature is written in a cursive, flowing style.

Mita D. Drazilov, ASA, MAAA

Alternate Plan Provisions Affecting Employer Contribution Rates

The law governing LAGERS provides for either a contributory plan or a non-contributory plan, with benefits based on either a 5 year or 3 year Final Average Salary (FAS).

Contributory Plan. Under the contributory plan, each covered member contributes 4% of compensation to LAGERS. If an employee terminates before being eligible for an immediate benefit, the member's contributions, plus any interest credited to the member's individual account, are refunded upon request.

Non-Contributory Plan. Under the non-contributory plan, there is no individual employee contribution to the plan, no individual account maintained for each employee, and no refund paid to employees who terminate before being eligible for a benefit.

The law further provides for nine different benefit programs (benefit formula factors) and allows an employer to elect "rule of 80" eligibility for benefits. Under the rule of 80, employees are eligible for unreduced benefits at the earlier of (i) attainment of their minimum service retirement age or (ii) such time as their years of age plus years of LAGERS credited service equals 80.

In total this allows for 72 different combinations of benefit plans, giving employers considerable latitude in designing the retirement program which they feel best suits their particular situation.

The applicable combinations of these items may be changed from time to time, however, there are limitations on the frequency of changes. A more detailed description of plan provisions may be found in Appendix III of this report.

City of Kirkwood

Employer Contribution Rates (Contributory Plan - 5 Year FAS)

(4% member contributions are additional)

Regular Retirement Eligibility

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	1.00%	3.10%	0.20%	4.30%
	Police	1.20	3.30	0.40	4.90
	Fire	1.10	4.10	0.60	5.80
L-3	General	1.30	4.40	0.30	6.00
	Police	1.60	4.70	0.50	6.80
	Fire	1.40	5.80	0.70	7.90
LT-4(65)	General	1.10	3.70	0.20	5.00
	Police	1.50	4.70	0.40	6.60
	Fire	1.30	6.00	0.60	7.90
LT-5(65)	General	1.40	4.90	0.30	6.60
	Police	1.80	5.70	0.50	8.00
	Fire	1.60	7.20	0.70	9.50
L-7	General	1.60	5.70	0.30	7.60
	Police	2.00	6.10	0.60	8.70
	Fire	1.70	7.60	0.80	10.10
LT-8(65)	General	1.70	6.10	0.30	8.10
	Police	2.20	6.80	0.60	9.60
	Fire	1.80	8.50	0.80	11.10
L-12	General	2.00	7.10	0.40	9.50
	Police	2.40	7.50	0.70	10.60
	Fire	2.00	9.30	0.90	12.20
LT-14(65)	General	2.00	7.20	0.40	9.60
	Police	2.50	7.90	0.70	11.10
	Fire	2.00	9.80	0.90	12.70
L-6	General	2.30	8.40	0.50	11.20
	Police	2.80	8.90	0.80	12.50
	Fire	2.30	11.10	1.00	14.40
L-11	Police	3.60	11.80	1.00	16.40
	Fire	2.90	14.50	1.20	18.60

* It was assumed that prior service would be given for vesting purposes only.

City of Kirkwood

Employer Contribution Rates (Contributory Plan - 3 Year FAS)

(4% member contributions are additional)

Regular Retirement Eligibility

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	1.00%	3.20%	0.20%	4.40%
	Police	1.30	3.50	0.40	5.20
	Fire	1.10	4.40	0.60	6.10
L-3	General	1.40	4.60	0.30	6.30
	Police	1.70	5.00	0.50	7.20
	Fire	1.40	6.20	0.70	8.30
LT-4(65)	General	1.20	3.90	0.20	5.30
	Police	1.60	4.90	0.40	6.90
	Fire	1.40	6.30	0.60	8.30
LT-5(65)	General	1.50	5.20	0.30	7.00
	Police	1.90	6.00	0.50	8.40
	Fire	1.60	7.70	0.70	10.00
L-7	General	1.70	6.00	0.30	8.00
	Police	2.10	6.40	0.60	9.10
	Fire	1.70	8.00	0.80	10.50
LT-8(65)	General	1.80	6.40	0.30	8.50
	Police	2.20	7.10	0.60	9.90
	Fire	1.90	8.90	0.80	11.60
L-12	General	2.00	7.40	0.40	9.80
	Police	2.50	7.90	0.70	11.10
	Fire	2.00	9.80	0.90	12.70
LT-14(65)	General	2.10	7.60	0.40	10.10
	Police	2.50	8.30	0.70	11.50
	Fire	2.10	10.30	0.90	13.30
L-6	General	2.40	8.80	0.50	11.70
	Police	2.90	9.40	0.80	13.10
	Fire	2.40	11.50	1.00	14.90
L-11	Police	3.80	12.30	1.00	17.10
	Fire	3.00	15.20	1.20	19.40

* It was assumed that prior service would be given for vesting purposes only.

City of Kirkwood

Employer Contribution Rates (Non-Contributory Plan - 5 Year FAS)
(No member contributions)

Regular Retirement Eligibility

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	1.20%	6.50%	0.20%	7.90%
	Police	1.40	6.90	0.40	8.70
	Fire	1.10	7.90	0.60	9.60
L-3	General	1.50	7.90	0.30	9.70
	Police	1.80	8.40	0.50	10.70
	Fire	1.40	9.70	0.70	11.80
LT-4(65)	General	1.30	7.20	0.20	8.70
	Police	1.70	8.20	0.40	10.30
	Fire	1.40	9.80	0.60	11.80
LT-5(65)	General	1.60	8.40	0.30	10.30
	Police	2.00	9.40	0.50	11.90
	Fire	1.60	11.10	0.70	13.40
L-7	General	1.80	9.30	0.30	11.40
	Police	2.10	9.80	0.60	12.50
	Fire	1.70	11.50	0.80	14.00
LT-8(65)	General	1.90	9.70	0.30	11.90
	Police	2.30	10.50	0.60	13.40
	Fire	1.80	12.40	0.80	15.00
L-12	General	2.10	10.70	0.40	13.20
	Police	2.50	11.30	0.70	14.50
	Fire	2.00	13.20	0.90	16.10
LT-14(65)	General	2.10	10.90	0.40	13.40
	Police	2.60	11.70	0.70	15.00
	Fire	2.00	13.70	0.90	16.60
L-6	General	2.40	12.10	0.50	15.00
	Police	2.80	12.80	0.80	16.40
	Fire	2.30	15.00	1.00	18.30
L-11	Police	3.50	15.80	1.00	20.30
	Fire	2.80	18.50	1.20	22.50

* It was assumed that prior service would be given for vesting purposes only.

City of Kirkwood

Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS)
(No member contributions)

Regular Retirement Eligibility

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	1.20%	6.70%	0.20%	8.10%
	Police	1.50	7.10	0.40	9.00
	Fire	1.20	8.20	0.60	10.00
L-3	General	1.60	8.20	0.30	10.10
	Police	1.80	8.60	0.50	10.90
	Fire	1.50	10.00	0.70	12.20
LT-4(65)	General	1.40	7.40	0.20	9.00
	Police	1.80	8.50	0.40	10.70
	Fire	1.40	10.10	0.60	12.10
LT-5(65)	General	1.60	8.70	0.30	10.60
	Police	2.10	9.70	0.50	12.30
	Fire	1.70	11.50	0.70	13.90
L-7	General	1.90	9.60	0.30	11.80
	Police	2.20	10.20	0.60	13.00
	Fire	1.70	11.90	0.80	14.40
LT-8(65)	General	1.90	10.00	0.30	12.20
	Police	2.30	10.90	0.60	13.80
	Fire	1.90	12.80	0.80	15.50
L-12	General	2.20	11.10	0.40	13.70
	Police	2.60	11.70	0.70	15.00
	Fire	2.00	13.70	0.90	16.60
LT-14(65)	General	2.20	11.30	0.40	13.90
	Police	2.60	12.10	0.70	15.40
	Fire	2.10	14.20	0.90	17.20
L-6	General	2.50	12.50	0.50	15.50
	Police	2.90	13.30	0.80	17.00
	Fire	2.30	15.50	1.00	18.80
L-11	Police	3.60	16.40	1.00	21.00
	Fire	2.90	19.20	1.20	23.30

* It was assumed that prior service would be given for vesting purposes only.

City of Kirkwood

Employer Contribution Rates (Contributory Plan - 5 Year FAS)

(4% member contributions are additional)

Rule of 80 Retirement Eligibility#

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.90%	3.50%	0.20%	4.60%
	Police	1.20	3.50	0.40	5.10
	Fire	1.00	4.50	0.60	6.10
L-3	General	1.20	4.90	0.30	6.40
	Police	1.60	5.00	0.50	7.10
	Fire	1.30	6.30	0.70	8.30
LT-4(65)	General	1.10	4.70	0.20	6.00
	Police	1.60	5.70	0.40	7.70
	Fire	1.40	6.90	0.60	8.90
LT-5(65)	General	1.40	5.80	0.30	7.50
	Police	1.90	6.20	0.50	8.60
	Fire	1.60	8.10	0.70	10.40
L-7	General	1.50	6.40	0.30	8.20
	Police	1.90	6.50	0.60	9.00
	Fire	1.60	8.20	0.80	10.60
LT-8(65)	General	1.60	6.90	0.30	8.80
	Police	2.10	7.30	0.60	10.00
	Fire	1.80	9.40	0.80	12.00
L-12	General	1.80	7.80	0.40	10.00
	Police	2.30	7.90	0.70	10.90
	Fire	1.90	10.00	0.90	12.80
LT-14(65)	General	1.90	8.10	0.40	10.40
	Police	2.40	8.30	0.70	11.40
	Fire	1.90	10.70	0.90	13.50
L-6	General	2.10	9.20	0.50	11.80
	Police	2.70	9.40	0.80	12.90
	Fire	2.10	11.90	1.00	15.00
L-11	Police	3.50	12.30	1.00	16.80
	Fire	2.70	15.60	1.20	19.50

The cost for the Rule of 80 provision is very dependent upon the age at hire of the employees. If hiring practices in the future differ from those of the past, the cost for this provision could increase or decrease. The cost shown is based on the age and service characteristics of the present group.

* It was assumed that prior service would be given for vesting purposes only.

City of Kirkwood

Employer Contribution Rates (Contributory Plan - 3 Year FAS)

(4% member contributions are additional)

Rule of 80 Retirement Eligibility#

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	1.00%	3.70%	0.20%	4.90%
	Police	1.20	3.70	0.40	5.30
	Fire	1.00	4.80	0.60	6.40
L-3	General	1.30	5.20	0.30	6.80
	Police	1.60	5.20	0.50	7.30
	Fire	1.30	6.70	0.70	8.70
LT-4(65)	General	1.10	4.90	0.20	6.20
	Police	1.70	5.40	0.40	7.50
	Fire	1.40	7.30	0.60	9.30
LT-5(65)	General	1.40	6.10	0.30	7.80
	Police	1.90	6.50	0.50	8.90
	Fire	1.60	8.50	0.70	10.80
L-7	General	1.60	6.70	0.30	8.60
	Police	2.00	6.70	0.60	9.30
	Fire	1.60	8.60	0.80	11.00
LT-8(65)	General	1.70	7.30	0.30	9.30
	Police	2.20	7.60	0.60	10.40
	Fire	1.80	9.80	0.80	12.40
L-12	General	1.90	8.20	0.40	10.50
	Police	2.40	8.30	0.70	11.40
	Fire	1.90	10.50	0.90	13.30
LT-14(65)	General	1.90	8.50	0.40	10.80
	Police	2.50	8.70	0.70	11.90
	Fire	2.00	11.10	0.90	14.00
L-6	General	2.20	9.70	0.50	12.40
	Police	2.80	9.80	0.80	13.40
	Fire	2.20	12.40	1.00	15.60
L-11	Police	3.60	13.00	1.00	17.60
	Fire	2.80	16.20	1.20	20.20

The cost for the Rule of 80 provision is very dependent upon the age at hire of the employees. If hiring practices in the future differ from those of the past, the cost for this provision could increase or decrease. The cost shown is based on the age and service characteristics of the present group.

* It was assumed that prior service would be given for vesting purposes only.

City of Kirkwood

Employer Contribution Rates (Non-Contributory Plan - 5 Year FAS)
(No member contributions)

Rule of 80 Retirement Eligibility#

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	1.10%	6.90%	0.20%	8.20%
	Police	1.40	7.10	0.40	8.90
	Fire	1.10	8.30	0.60	10.00
L-3	General	1.40	8.40	0.30	10.10
	Police	1.70	8.60	0.50	10.80
	Fire	1.30	10.20	0.70	12.20
LT-4(65)	General	1.30	8.10	0.20	9.60
	Police	1.80	8.70	0.40	10.90
	Fire	1.40	10.80	0.60	12.80
LT-5(65)	General	1.50	9.30	0.30	11.10
	Police	2.00	9.80	0.50	12.30
	Fire	1.60	12.00	0.70	14.30
L-7	General	1.70	9.90	0.30	11.90
	Police	2.10	10.20	0.60	12.90
	Fire	1.60	12.10	0.80	14.50
LT-8(65)	General	1.80	10.50	0.30	12.60
	Police	2.30	11.00	0.60	13.90
	Fire	1.80	13.30	0.80	15.90
L-12	General	2.00	11.50	0.40	13.90
	Police	2.40	11.70	0.70	14.80
	Fire	1.90	13.90	0.90	16.70
LT-14(65)	General	2.00	11.70	0.40	14.10
	Police	2.50	12.10	0.70	15.30
	Fire	2.00	14.50	0.90	17.40
L-6	General	2.20	13.00	0.50	15.70
	Police	2.80	13.20	0.80	16.80
	Fire	2.10	15.80	1.00	18.90
L-11	Police	3.40	16.30	1.00	20.70
	Fire	2.70	19.50	1.20	23.40

The cost for the Rule of 80 provision is very dependent upon the age at hire of the employees. If hiring practices in the future differ from those of the past, the cost for this provision could increase or decrease. The cost shown is based on the age and service characteristics of the present group.

* It was assumed that prior service would be given for vesting purposes only.

City of Kirkwood

Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS)
(No member contributions)

Rule of 80 Retirement Eligibility#

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	1.20%	7.10%	0.20%	8.50%
	Police	1.40	7.30	0.40	9.10
	Fire	1.10	8.60	0.60	10.30
L-3	General	1.40	8.70	0.30	10.40
	Police	1.80	8.90	0.50	11.20
	Fire	1.40	10.50	0.70	12.60
LT-4(65)	General	1.30	8.40	0.20	9.90
	Police	1.80	9.00	0.40	11.20
	Fire	1.50	11.10	0.60	13.20
LT-5(65)	General	1.60	9.60	0.30	11.50
	Police	2.10	10.20	0.50	12.80
	Fire	1.60	12.40	0.70	14.70
L-7	General	1.70	10.30	0.30	12.30
	Police	2.10	10.50	0.60	13.20
	Fire	1.60	12.50	0.80	14.90
LT-8(65)	General	1.80	10.90	0.30	13.00
	Police	2.30	11.40	0.60	14.30
	Fire	1.80	13.70	0.80	16.30
L-12	General	2.00	11.80	0.40	14.20
	Police	2.50	12.10	0.70	15.30
	Fire	1.90	14.40	0.90	17.20
LT-14(65)	General	2.10	12.10	0.40	14.60
	Police	2.60	12.50	0.70	15.80
	Fire	2.00	15.00	0.90	17.90
L-6	General	2.30	13.40	0.50	16.20
	Police	2.80	13.70	0.80	17.30
	Fire	2.20	16.30	1.00	19.50
L-11	Police	3.60	16.90	1.00	21.50
	Fire	2.70	20.20	1.20	24.10

The cost for the Rule of 80 provision is very dependent upon the age at hire of the employees. If hiring practices in the future differ from those of the past, the cost for this provision could increase or decrease. The cost shown is based on the age and service characteristics of the present group.

* It was assumed that prior service would be given for vesting purposes only.

City of Kirkwood

Employer Contribution Dollars

Regular Retirement Eligibility

Employer contributions are payable monthly, and each month's actual dollar contribution will be the contribution percent multiplied by the payroll during the month. If payroll during your first year of LAGERS participation equals the annual payroll reported for this valuation, the approximate employer dollar contribution for the year would be as follows:

Contributory Plan

5 Year FAS			
Benefit Program	General	Police	Fire
L-1	\$ 426,901	\$ 228,026	\$ 250,839
L-3	595,676	316,444	341,660
LT-4(65)	496,396	307,137	341,660
LT-5(65)	655,243	372,287	410,857
L-7	754,523	404,863	436,806
LT-8(65)	804,162	446,745	480,054
L-12	943,153	493,281	527,627
LT-14(65)	953,081	516,549	549,251
L-6	1,111,928	581,699	622,773
L-11	N/A	763,189	804,415

3 Year FAS			
Benefit Program	General	Police	Fire
L-1	\$ 436,829	\$ 241,987	\$ 263,814
L-3	625,460	335,059	358,960
LT-4(65)	526,180	321,098	358,960
LT-5(65)	694,955	390,902	432,481
L-7	794,234	423,477	454,105
LT-8(65)	843,874	460,706	501,678
L-12	972,937	516,549	549,251
LT-14(65)	1,002,721	535,163	575,200
L-6	1,161,568	609,621	644,397
L-11	N/A	795,764	839,014

Non-Contributory Plan

5 Year FAS			
Benefit Program	General	Police	Fire
L-1	\$ 784,306	\$ 404,863	\$ 415,182
L-3	963,009	497,934	510,328
LT-4(65)	863,730	479,320	510,328
LT-5(65)	1,022,577	553,778	579,525
L-7	1,131,784	581,699	605,474
LT-8(65)	1,181,424	623,581	648,722
L-12	1,310,487	674,771	696,295
LT-14(65)	1,330,343	698,039	717,919
L-6	1,489,189	763,189	791,441
L-11	N/A	944,679	973,083

3 Year FAS			
Benefit Program	General	Police	Fire
L-1	\$ 804,162	\$ 418,823	\$ 432,481
L-3	1,002,721	507,242	527,627
LT-4(65)	893,514	497,934	523,302
LT-5(65)	1,052,360	572,392	601,149
L-7	1,171,496	604,967	622,773
LT-8(65)	1,211,207	642,196	670,346
L-12	1,360,126	698,039	717,919
LT-14(65)	1,379,982	716,653	743,868
L-6	1,538,829	791,111	813,065
L-11	N/A	977,254	1,007,682

PLEASE NOTE THAT THE ABOVE INFORMATION IS BASED ON THE PERSONNEL AND PAYROLL DATA SUBMITTED FOR THE ACTUARIAL VALUATION. IN BUDGETING AMOUNTS FOR LAGERS CONTRIBUTIONS YOU SHOULD CONSIDER ANY CHANGES WHICH HAVE BEEN MADE SINCE DATA WAS SUBMITTED FOR THE VALUATION AND ANY CHANGES ANTICIPATED TO BE MADE BEFORE THE END OF THE PERIOD FOR WHICH YOU ARE PREPARING THE BUDGET.

City of Kirkwood

Employer Contribution Dollars

Rule of 80 Retirement Eligibility

Employer contributions are payable monthly, and each month's actual dollar contribution will be the contribution percent multiplied by the payroll during the month. If payroll during your first year of LAGERS participation equals the annual payroll reported for this valuation, the approximate employer dollar contribution for the year would be as follows:

Contributory Plan

5 Year FAS			
Benefit Program	General	Police	Fire
L-1	\$ 456,685	\$ 237,333	\$ 263,814
L-3	635,387	330,405	358,960
LT-4(65)	595,676	358,327	384,908
LT-5(65)	744,595	400,209	449,781
L-7	814,090	418,823	458,430
LT-8(65)	873,658	465,359	518,978
L-12	992,793	507,242	553,576
LT-14(65)	1,032,505	530,510	583,850
L-6	1,171,496	600,313	648,722
L-11	N/A	781,804	843,339

3 Year FAS			
Benefit Program	General	Police	Fire
L-1	\$ 486,469	\$ 246,640	\$ 276,788
L-3	675,099	339,712	376,259
LT-4(65)	615,532	349,019	402,208
LT-5(65)	774,378	414,170	467,080
L-7	853,802	432,784	475,730
LT-8(65)	923,297	483,974	536,277
L-12	1,042,433	530,510	575,200
LT-14(65)	1,072,216	553,778	605,474
L-6	1,231,063	623,581	674,671
L-11	N/A	819,032	873,612

Non-Contributory Plan

5 Year FAS			
Benefit Program	General	Police	Fire
L-1	\$ 814,090	\$ 414,170	\$ 432,481
L-3	1,002,721	502,588	527,627
LT-4(65)	953,081	507,242	553,576
LT-5(65)	1,102,000	572,392	618,448
L-7	1,181,424	600,313	627,098
LT-8(65)	1,250,919	646,849	687,645
L-12	1,379,982	688,732	722,244
LT-14(65)	1,399,838	712,000	752,518
L-6	1,558,685	781,804	817,390
L-11	N/A	963,294	1,012,006

3 Year FAS			
Benefit Program	General	Police	Fire
L-1	\$ 843,874	\$ 423,477	\$ 445,456
L-3	1,032,505	521,202	544,927
LT-4(65)	982,865	521,202	570,875
LT-5(65)	1,141,712	595,660	635,748
L-7	1,221,135	614,274	644,397
LT-8(65)	1,290,631	665,464	704,945
L-12	1,409,766	712,000	743,868
LT-14(65)	1,449,478	735,268	774,142
L-6	1,608,325	805,072	843,339
L-11	N/A	1,000,522	1,042,280

PLEASE NOTE THAT THE ABOVE INFORMATION IS BASED ON THE PERSONNEL AND PAYROLL DATA SUBMITTED FOR THE ACTUARIAL VALUATION. IN BUDGETING AMOUNTS FOR LAGERS CONTRIBUTIONS YOU SHOULD CONSIDER ANY CHANGES WHICH HAVE BEEN MADE SINCE DATA WAS SUBMITTED FOR THE VALUATION AND ANY CHANGES ANTICIPATED TO BE MADE BEFORE THE END OF THE PERIOD FOR WHICH YOU ARE PREPARING THE BUDGET.

City of Kirkwood

Employees and Payroll Included in the Valuation

	General	Police	Fire
Number of Employees	164	61	52
Annual Payroll	\$ 9,927,929	\$ 4,653,593	\$ 4,324,814

Information regarding the age and service characteristics of the employees is contained in Appendix V.

UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)

If the decision is made to join LAGERS the governing body also must decide how much credit to grant employees for their service before the membership date. The options are to cover 25%, 50%, 75% or 100% of prior service. The granting of prior service credit results in the establishment of an actuarial accrued liability. Because your political subdivision will not have established an asset balance with the System as of the membership date, the value established for prior service is an unfunded actuarial accrued liability.

The policy of the LAGERS Board of Trustees provides that unfunded liabilities are to be paid for by level percent of payroll contributions over a period of 30 years. The contribution rates shown on pages 4 through 11 as the "Prior Service Cost" are designed to pay for the applicable unfunded actuarial accrued liability. This procedure will allow your political subdivision to retire the unfunded actuarial accrued liability in an orderly fashion over a period of years without the need for an immediate large payment upon joining the System.

Should the governing body elect to grant credit for 100% of the employees' prior service, the unfunded actuarial accrued liability as of the date of this valuation would be as follows:

City of Kirkwood

Regular Retirement Eligibility

Benefit Group	Employee Group	Contributory		Non-Contributory	
		UAAL (5 Year FAS)	UAAL (3 Year FAS)	UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	General	\$ 1,756,520	\$ 1,830,687	\$ 2,110,900	\$ 2,177,958
	Police	996,087	1,039,817	1,158,724	1,195,643
	Fire	811,714	841,515	862,988	888,760
L-3	General	\$ 2,322,453	\$ 2,414,458	\$ 2,638,747	\$ 2,722,327
	Police	1,317,847	1,371,113	1,448,324	1,494,525
	Fire	1,046,616	1,083,167	1,078,813	1,111,008
LT-4(65)	General	1,936,702	2,017,256	2,289,617	2,362,845
	Police	1,253,507	1,306,407	1,414,588	1,460,640
	Fire	1,009,272	1,045,751	1,059,365	1,091,788
LT-5(65)	General	2,457,634	2,554,279	2,772,840	2,861,018
	Police	1,510,974	1,571,005	1,640,263	1,693,280
	Fire	1,194,709	1,236,475	1,226,008	1,263,246
L-7	General	2,885,333	2,995,128	3,166,505	3,266,861
	Police	1,634,466	1,696,874	1,738,070	1,793,374
	Fire	1,279,190	1,322,451	1,294,575	1,333,192
LT-8(65)	General	2,975,416	3,088,396	3,255,710	3,359,310
	Police	1,763,130	1,830,189	1,866,009	1,925,961
	Fire	1,377,932	1,424,561	1,392,716	1,434,707
L-12	General	3,445,519	3,572,535	3,694,307	3,811,331
	Police	1,947,576	2,019,613	2,027,706	2,092,267
	Fire	1,510,318	1,560,079	1,510,376	1,555,434
LT-14(65)	General	3,490,609	3,619,164	3,738,980	3,857,412
	Police	2,011,871	2,086,264	2,091,690	2,158,518
	Fire	1,559,652	1,611,178	1,559,446	1,606,129
L-6	General	4,003,420	4,147,627	4,222,096	4,355,816
	Police	2,259,319	2,341,620	2,317,402	2,391,224
	Fire	1,740,193	1,797,058	1,726,102	1,777,513
L-11	Police	2,967,430	3,076,852	2,896,648	2,989,051
	Fire	2,241,428	2,315,826	2,157,626	2,222,015

City of Kirkwood

UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)

Rule of 80 Retirement Eligibility

Benefit Group	Employee Group	Contributory		Non-Contributory	
		UAAL (5 Year FAS)	UAAL (3 Year FAS)	UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	General	\$ 1,627,230	\$ 1,696,181	\$ 1,954,186	\$ 2,017,558
	Police	972,521	1,015,362	1,127,591	1,164,268
	Fire	762,375	791,165	810,747	836,245
L-3	General	\$ 2,145,514	\$ 2,231,492	\$ 2,442,666	\$ 2,521,997
	Police	1,282,942	1,335,195	1,409,477	1,455,332
	Fire	980,933	1,016,527	1,013,386	1,045,286
LT-4(65)	General	1,921,001	2,000,408	2,246,030	2,319,636
	Police	1,307,524	1,362,388	1,460,914	1,509,600
	Fire	1,034,894	1,073,296	1,081,941	1,116,997
LT-5(65)	General	2,365,947	2,459,515	2,661,626	2,748,583
	Police	1,534,216	1,595,413	1,659,479	1,714,355
	Fire	1,185,280	1,228,139	1,216,779	1,255,809
L-7	General	2,661,586	2,763,936	2,931,266	3,026,276
	Police	1,588,531	1,649,761	1,691,327	1,746,419
	Fire	1,197,687	1,246,207	1,216,149	1,254,320
LT-8(65)	General	2,808,516	2,916,047	3,077,314	3,177,278
	Police	1,755,989	1,823,363	1,857,990	1,919,067
	Fire	1,333,862	1,380,650	1,351,715	1,394,658
L-12	General	3,175,116	3,293,504	3,419,854	3,530,714
	Police	1,890,920	1,961,798	1,973,246	2,037,403
	Fire	1,413,072	1,461,463	1,418,894	1,463,323
LT-14(65)	General	3,248,607	3,369,591	3,492,792	3,606,218
	Police	1,974,636	2,048,486	2,056,588	2,123,766
	Fire	1,481,183	1,532,010	1,486,665	1,533,488
L-6	General	3,686,453	3,821,235	3,908,438	4,035,182
	Police	2,192,234	2,273,010	2,255,090	2,328,573
	Fire	1,627,449	1,682,738	1,621,463	1,672,292
L-11	Police	2,875,415	2,982,736	2,818,955	2,910,663
	Fire	2,094,874	2,167,322	2,026,771	2,090,571

APPENDIX II

SUMMARY OF FINANCIAL ASSUMPTIONS

Summary of Assumptions Used in Actuarial Valuations

Assumptions Adopted by Board of Trustees After Consulting With Actuary

1. The investment return rate used in making the valuations was 7.25% per year, net of investment expenses, compounded annually. This rate of return is not the assumed real rate of return. The real rate of return is the rate of investment return in excess of the inflation rate. The price inflation rate used in making the valuations was 2.50% and the wage inflation rate used in making the valuations was 3.25%. The 7.25% investment return rate translates to an assumed real rate of return over price inflation of 4.75% and over wage inflation of 4.00%. Adopted 2011 and 2016.
2. The healthy retiree mortality tables, for post-retirement mortality, used in evaluating allowances to be paid were the RP-2014 Healthy Annuitant mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The disabled retiree mortality tables, for post-retirement mortality, used in evaluating allowances to be paid were the RP-2014 disabled mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The pre-retirement mortality tables used were the RP-2014 employees mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. For both the post-retirement and pre-retirement tables, the base year for males was then established to be 2017. Mortality rates for a particular calendar year are determined by applying the MP-2015 mortality improvement scale to the above described tables. Adopted 2016.
3. The probabilities of withdrawal from service, together with individual pay increase assumptions, are shown in Schedule 1. Adopted 2016.
4. The probabilities of retirement with an age and service allowance are shown in Schedule 2. Adopted 2016.
5. Post-retirement cost of living allowances are assumed to be 2.50% per year. Adopted 2016.
6. Total active member payroll is assumed to increase 3.25% a year, which is the portion of the individual pay increase assumptions attributable to wage inflation. In effect, this assumes no change in the number of active members per employer. Adopted 2016.
7. An individual entry-age actuarial cost method of valuation was used in determining age and service allowance actuarial liabilities and normal cost. Adopted 1986.
8. The data about persons now covered was furnished by the political subdivision. Although examined for general reasonableness, the data was not audited by us.

Schedule 1.

Withdrawal From Active Employment Before Age & Service Retirement and Individual Pay Increase Assumptions

Sample Ages	Years of Service	Percent of Active Members Separating Within Next Year				Percent Increase in Individual's Pay During Next Year Excluding Fire
		General Members		Police	Fire	
		Men	Women			
All	0	19.00%	22.00%	18.00%	10.00%	
	1	17.00	20.00	17.00	8.00	
	2	15.00	17.00	16.00	7.00	
	3	13.00	14.00	13.00	6.00	
	4	11.00	13.00	12.00	6.00	
25	5 & Over	7.30	10.80	9.80	5.00	6.6%
30		6.50	8.90	7.80	4.00	5.8
35		5.00	7.40	6.10	2.80	5.3
40		3.70	5.70	4.40	2.20	4.8
45		3.00	4.20	3.20	1.80	4.3
50		2.40	3.30	1.80	1.00	3.9
55		1.80	2.50	1.00	0.50	3.7
60		1.00	1.20	0.00	0.00	3.6
65		0.00	0.00	0.00	0.00	3.3

Percent Increase in Individual's Pay During Next Year	
Sample Ages	Fire
25	7.2%
30	6.1
35	5.2
40	4.5
45	4.2
50	3.9
55	3.7
60	3.3
65	3.3

Schedule 2.

Percent of Eligible Active Members Retiring Within Next Year Without Rule of 80 Eligibility

Early Retirement

Retirement Ages	General Members		Retirement Ages	Police	Fire
	Men	Women			
55	3.00%	3.00%	50	2.50%	2.50%
56	3.00%	3.00%	51	2.50%	2.50%
57	3.00%	3.00%	52	2.50%	2.50%
58	3.00%	3.00%	53	2.50%	2.50%
59	3.00%	3.00%	54	2.50%	2.50%

Normal Retirement

Retirement Ages	General Members		Retirement Ages	Police	Fire
	Men	Women			
60	10%	10%	55	10%	13%
61	10	10	56	10	13
62	25	15	57	10	13
63	20	15	58	10	13
64	20	15	59	10	13
65	25	25	60	10	15
66	25	25	61	10	15
67	20	25	62	25	20
68	20	25	63	20	20
69	20	20	64	20	20
70	100	100	65	100	100

Schedule 2. (Continued)

**Percent of Eligible Active Members Retiring Within Next Year
With Rule of 80 Eligibility**

Retirement Ages	General Members		Police	Fire
	Men	Women		
50	15%	15%	25%	25%
51	15	15	25	20
52	15	15	15	20
53	15	15	15	20
54	15	15	15	20
55	15	15	15	20
56	15	15	15	20
57	15	15	15	25
58	15	15	15	25
59	15	15	15	25
60	15	15	15	35
61	15	15	25	35
62	30	15	30	45
63	30	15	30	45
64	30	20	30	45
65	30	25	100	100
66	30	25		
67	30	25		
68	30	25		
69	30	25		
70	100	100		

APPENDIX III

SUMMARY OF LAGERS PROVISIONS

Missouri Local Government Employees Retirement System
Brief Summary of LAGERS
Benefits and Conditions Evaluated and/or Considered
as of February 29, 2016
(Section references are to RSMo)

Voluntary Retirement. Sections 70.645 & 70.600. A member may retire with an age & service allowance after both (i) completing 5 years of credited service, and (ii) attaining the minimum service retirement age.

The minimum service retirement age is age 60 for a general employee and age 55 for a police or fire employee. Optionally, employers may also elect to provide for unreduced benefits for employees whose combination of years of age and years of service equals 80 or more.

Final Average Salary. Section 70.600. The average of a member's monthly compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) of credited service producing the highest monthly average, which period is contained within the 120 consecutive months of credited service immediately preceding retirement.

Age & Service Allowance. Section 70.655. The allowance, payable monthly for life, equals a specified percent of a member's final average salary multiplied by the number of years of credited service. Each employer elects the percent applicable to its members, from the following programs:

L-1 Benefit Program:	1.00% for life
L-3 Benefit Program:	1.25% for life
L-7 Benefit Program:	1.50% for life
L-12 Benefit Program:	1.75% for life
L-6 Benefit Program:	2.00% for life
LT-4(65) Benefit Program:	1.00% for life, plus 1.00% to age 65
LT-5(65) Benefit Program:	1.25% for life, plus 0.75% to age 65
LT-8(65) Benefit Program:	1.50% for life, plus 0.50% to age 65
LT-14(65) Benefit Program:	1.75% for life, plus 0.25% to age 65

The only LT benefit programs available for adoption after August 1, 1994 are the LT(65) programs.

Benefit programs L-9 and LT-10(65) are unavailable for adoption after August 1, 2005.

Benefit program L-11, available only to groups not covered by social security, provides for 2.5% for life.

Subsequent to joining the System the governing body can elect to change benefit programs for the employees, but not more often than once every 2 years.

Early Allowance. Section 70.670. A member may retire with an early allowance after both (i) completing 5 years of credited service, and (ii) attaining age 55 if a general employee or age 50 if a police or fire employee.

The early allowance amount, payable monthly for life, is computed in the same manner as an age & service allowance, based upon the service and earnings record to time of early retirement, but reduced to reflect the fact that the age when payments begin is younger than the minimum service retirement age. The amount of the reduction is 1/2 of 1% (.005) for each month the age at retirement is younger than the minimum service retirement age.

Deferred Allowance. Section 70.675. If a member leaves LAGERS-covered employment (i) before attaining the early retirement age, and (ii) after completing 5 years of credited service, the member becomes eligible for a deferred allowance; provided the former member lives to the minimum service retirement age and does not withdraw the accumulated contributions.

The deferred allowance amount, payable monthly for life from the minimum service retirement age, is computed in the same manner as an age & service allowance, based upon the service and earnings record to time of leaving LAGERS coverage.

Deferred allowances are also payable any time after reaching the early retirement age, with the reduction for early retirement noted on the previous page.

Non-Duty Disability Allowance. Section 70.680. A member with 5 or more years of credited service who becomes totally and permanently disabled from other than duty-connected causes becomes eligible to receive a non-duty disability allowance computed in the same manner as an age & service allowance, based upon the service & earnings record to time of disability.

Duty Disability Allowance. Section 70.680. A member regardless of credited service who becomes totally and permanently disabled from duty-connected causes becomes eligible to receive a duty disability allowance computed in the same manner as an age & service allowance, based upon the earnings record to time of disability but based upon the years of credited service the member would have completed had the member continued in LAGERS-covered employment to age 60.

Death-in-Service. Section 70.661. Upon the death of a member who had completed 5 years of credited service, the eligible surviving dependents receive the following benefits:

(a) The surviving spouse receives an allowance equal to the Option A allowance (joint and 75% survivor benefit) computed based upon the deceased members' service & earnings record to time of death.

(b) When no spouse benefit is payable, the dependent children under age 18 (age 23 if they are full time students) each receive an equal share of 60% of an age & service allowance computed based upon the deceased member's service & earnings record to time of death.

(c) If the death is determined to be duty related, the 5 year service requirement is waived and the benefit is based on years of credited service the member would have completed had the member continued in LAGERS-covered employment to age 60.

Benefit Changes After Retirement. Section 70.655. For retirements effective after September 28, 1975, there is an annual redetermination of monthly benefit amount, beginning the October first following 12 months of retirement. As of each October first the amount of each eligible benefit is redetermined as follows:

(a) Subject to the maximum in (b), the redetermined amount is the amount other-wise payable multiplied by: 100% plus up to 4%, as determined by the LAGERS Board of Trustees, for each full year of retirement.

(b) The redetermined amount may not exceed the amount otherwise payable multiplied by the ratio of the Consumer Price Index for the immediately preceding month of June to the Consumer Price Index for the month of June immediately preceding retirement.

Member Contributions. Sections 70.690 & 70.705. Each member contributes 4% of compensation beginning after completion of sufficient employment for 6 months of credited service.

If a member leaves LAGERS-covered employment before an allowance is payable, the accumulated contributions are refunded to the member. If the member dies, his accumulated contributions are refunded to a designated beneficiary.

The law governing LAGERS also has a provision for the adoption of a non-contributory plan in which the full cost of LAGERS participation is paid by the employer. Adoption of the non-contributory provisions may be done at the time of membership or a later date; however, a change from contributory to non-contributory or vice-versa may not be made more frequently than every 2 years. Under the non-contributory provisions there is no individual account maintained for each employee and no refund of contributions if an employee terminates before being eligible for a benefit.

Employer Contributions. Section 70.730. Each employer contributes the remainder amounts necessary to finance the employees' participation in LAGERS. Contributions to LAGERS are determined based upon level-percent-of-payroll principles, so that contribution rates do not have to increase over decades of time.

APPENDIX IV

BENEFIT ILLUSTRATIONS

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(L-1 Benefit Program is Years of Credited Service
times: 1.00% of FAS ¹)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³	Estimated Social Security ²	Estimated	
			Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$ 525	\$ 882	\$1,407	94%
2,000	700	1,028	1,728	86%
2,500	875	1,174	2,049	82%
3,000	1,050	1,320	2,370	79%
3,500	1,225	1,465	2,690	77%
4,000	1,400	1,611	3,011	75%
25 Years of Service:				
\$1,500	\$ 375	\$ 882	\$1,257	84%
2,000	500	1,028	1,528	76%
2,500	625	1,174	1,799	72%
3,000	750	1,320	2,070	69%
3,500	875	1,465	2,340	67%
4,000	1,000	1,611	2,611	65%
15 Years of Service:				
\$1,500	\$225	\$ 882	\$1,107	74%
2,000	300	1,028	1,328	66%
2,500	375	1,174	1,549	62%
3,000	450	1,320	1,770	59%
3,500	525	1,465	1,990	57%
4,000	600	1,611	2,211	55%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(L-3 Benefit Program is Years of Credited Service
times: 1.25% of FAS ¹)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³	Estimated Social Security ²	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$ 656	\$ 882	\$1,538	103%
2,000	875	1,028	1,903	95%
2,500	1,094	1,174	2,268	91%
3,000	1,313	1,320	2,633	88%
3,500	1,531	1,465	2,996	86%
4,000	1,750	1,611	3,361	84%
25 Years of Service:				
\$1,500	\$ 469	\$ 882	\$1,351	90%
2,000	625	1,028	1,653	83%
2,500	781	1,174	1,955	78%
3,000	938	1,320	2,258	75%
3,500	1,094	1,465	2,559	73%
4,000	1,250	1,611	2,861	72%
15 Years of Service:				
\$1,500	\$281	\$ 882	\$1,163	78%
2,000	375	1,028	1,403	70%
2,500	469	1,174	1,643	66%
3,000	563	1,320	1,883	63%
3,500	656	1,465	2,121	61%
4,000	750	1,611	2,361	59%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(L-7 Benefit Program is Years of Credited Service
times: 1.50% of FAS ¹)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³	Estimated Social Security ²	Estimated	
			Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$ 788	\$ 882	\$1,670	111%
2,000	1,050	1,028	2,078	104%
2,500	1,313	1,174	2,487	99%
3,000	1,575	1,320	2,895	97%
3,500	1,838	1,465	3,303	94%
4,000	2,100	1,611	3,711	93%
25 Years of Service:				
\$1,500	\$ 563	\$ 882	\$1,445	96%
2,000	750	1,028	1,778	89%
2,500	938	1,174	2,112	84%
3,000	1,125	1,320	2,445	82%
3,500	1,313	1,465	2,778	79%
4,000	1,500	1,611	3,111	78%
15 Years of Service:				
\$1,500	\$338	\$ 882	\$1,220	81%
2,000	450	1,028	1,478	74%
2,500	563	1,174	1,737	69%
3,000	675	1,320	1,995	67%
3,500	788	1,465	2,253	64%
4,000	900	1,611	2,511	63%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(L-12 Benefit Program is Years of Credited Service
times: 1.75% of FAS ¹)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³	Estimated Social Security ²	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$ 919	\$ 882	\$1,801	120%
2,000	1,225	1,028	2,253	113%
2,500	1,531	1,174	2,705	108%
3,000	1,838	1,320	3,158	105%
3,500	2,144	1,465	3,609	103%
4,000	2,450	1,611	4,061	102%
25 Years of Service:				
\$1,500	\$ 656	\$ 882	\$1,538	103%
2,000	875	1,028	1,903	95%
2,500	1,094	1,174	2,268	91%
3,000	1,313	1,320	2,633	88%
3,500	1,531	1,465	2,996	86%
4,000	1,750	1,611	3,361	84%
15 Years of Service:				
\$1,500	\$ 394	\$ 882	\$1,276	85%
2,000	525	1,028	1,553	78%
2,500	656	1,174	1,830	73%
3,000	788	1,320	2,108	70%
3,500	919	1,465	2,384	68%
4,000	1,050	1,611	2,661	67%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(L-6 Benefit Program is Years of Credited Service
times: 2.00% of FAS ¹)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³	Estimated Social Security ²	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$1,050	\$ 882	\$1,932	129%
2,000	1,400	1,028	2,428	121%
2,500	1,750	1,174	2,924	117%
3,000	2,100	1,320	3,420	114%
3,500	2,450	1,465	3,915	112%
4,000	2,800	1,611	4,411	110%
25 Years of Service:				
\$1,500	\$ 750	\$ 882	\$1,632	109%
2,000	1,000	1,028	2,028	101%
2,500	1,250	1,174	2,424	97%
3,000	1,500	1,320	2,820	94%
3,500	1,750	1,465	3,215	92%
4,000	2,000	1,611	3,611	90%
15 Years of Service:				
\$1,500	\$ 450	\$ 882	\$1,332	89%
2,000	600	1,028	1,628	81%
2,500	750	1,174	1,924	77%
3,000	900	1,320	2,220	74%
3,500	1,050	1,465	2,515	72%
4,000	1,200	1,611	2,811	70%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(LT-4(65) Benefit Program is Years of Credited Service
times: 2.00% of FAS¹ to age 65)
1.00% of FAS¹ at age 65)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³		Estimated Social Security ²	Estimated Monthly Total		Percent of FAS	
	To 65	At 65		To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 525	\$ 882	\$1,050	\$1,407	70%	94%
2,000	1,400	700	1,028	1,400	1,728	70%	86%
2,500	1,750	875	1,174	1,750	2,049	70%	82%
3,000	2,100	1,050	1,320	2,100	2,370	70%	79%
3,500	2,450	1,225	1,465	2,450	2,690	70%	77%
4,000	2,800	1,400	1,611	2,800	3,011	70%	75%
25 Years of Service:							
\$1,500	\$ 750	\$ 375	\$ 882	\$ 750	\$1,257	50%	84%
2,000	1,000	500	1,028	1,000	1,528	50%	76%
2,500	1,250	625	1,174	1,250	1,799	50%	72%
3,000	1,500	750	1,320	1,500	2,070	50%	69%
3,500	1,750	875	1,465	1,750	2,340	50%	67%
4,000	2,000	1,000	1,611	2,000	2,611	50%	65%
15 Years of Service:							
\$1,500	\$ 450	\$225	\$ 882	\$ 450	\$1,107	30%	74%
2,000	600	300	1,028	600	1,328	30%	66%
2,500	750	375	1,174	750	1,549	30%	62%
3,000	900	450	1,320	900	1,770	30%	59%
3,500	1,050	525	1,465	1,050	1,990	30%	57%
4,000	1,200	600	1,611	1,200	2,211	30%	55%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(LT-5(65) Benefit Program is Years of Credited Service
times: 2.00% of FAS¹ to age 65)
1.25% of FAS¹ at age 65)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³		Estimated Social Security ²	Estimated Monthly Total		Percent of FAS	
	To 65	At 65		To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 656	\$ 882	\$1,050	\$1,538	70%	103%
2,000	1,400	875	1,028	1,400	1,903	70%	95%
2,500	1,750	1,094	1,174	1,750	2,268	70%	91%
3,000	2,100	1,313	1,320	2,100	2,633	70%	88%
3,500	2,450	1,531	1,465	2,450	2,996	70%	86%
4,000	2,800	1,750	1,611	2,800	3,361	70%	84%
25 Years of Service:							
\$1,500	\$ 750	\$ 469	\$ 882	\$ 750	\$1,351	50%	90%
2,000	1,000	625	1,028	1,000	1,653	50%	83%
2,500	1,250	781	1,174	1,250	1,955	50%	78%
3,000	1,500	938	1,320	1,500	2,258	50%	75%
3,500	1,750	1,094	1,465	1,750	2,559	50%	73%
4,000	2,000	1,250	1,611	2,000	2,861	50%	72%
15 Years of Service:							
\$1,500	\$ 450	\$281	\$ 882	\$ 450	\$1,163	30%	78%
2,000	600	375	1,028	600	1,403	30%	70%
2,500	750	469	1,174	750	1,643	30%	66%
3,000	900	563	1,320	900	1,883	30%	63%
3,500	1,050	656	1,465	1,050	2,121	30%	61%
4,000	1,200	750	1,611	1,200	2,361	30%	59%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(LT-8(65) Benefit Program is Years of Credited Service
times: 2.00% of FAS¹ to age 65)
1.50% of FAS¹ at age 65)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³		Estimated Social Security ²	Estimated Monthly Total		Percent of FAS	
	To 65	At 65		To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 788	\$ 882	\$1,050	\$1,670	70%	111%
2,000	1,400	1,050	1,028	1,400	2,078	70%	104%
2,500	1,750	1,313	1,174	1,750	2,487	70%	99%
3,000	2,100	1,575	1,320	2,100	2,895	70%	97%
3,500	2,450	1,838	1,465	2,450	3,303	70%	94%
4,000	2,800	2,100	1,611	2,800	3,711	70%	93%
25 Years of Service:							
\$1,500	\$ 750	\$ 563	\$ 882	\$ 750	\$1,445	50%	96%
2,000	1,000	750	1,028	1,000	1,778	50%	89%
2,500	1,250	938	1,174	1,250	2,112	50%	84%
3,000	1,500	1,125	1,320	1,500	2,445	50%	82%
3,500	1,750	1,313	1,465	1,750	2,778	50%	79%
4,000	2,000	1,500	1,611	2,000	3,111	50%	78%
15 Years of Service:							
\$1,500	\$ 450	\$338	\$ 882	\$ 450	\$1,220	30%	81%
2,000	600	450	1,028	600	1,478	30%	74%
2,500	750	563	1,174	750	1,737	30%	69%
3,000	900	675	1,320	900	1,995	30%	67%
3,500	1,050	788	1,465	1,050	2,253	30%	64%
4,000	1,200	900	1,611	1,200	2,511	30%	63%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(LT-14(65) Benefit Program is Years of Credited Service
times: 2.00% of FAS¹ to age 65)
1.75% of FAS¹ at age 65)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³		Estimated Social Security ²	Estimated Monthly Total		Percent of FAS	
	To 65	At 65		To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 919	\$ 882	\$1,050	\$1,801	70%	120%
2,000	1,400	1,225	1,028	1,400	2,253	70%	113%
2,500	1,750	1,531	1,174	1,750	2,705	70%	108%
3,000	2,100	1,838	1,320	2,100	3,158	70%	105%
3,500	2,450	2,144	1,465	2,450	3,609	70%	103%
4,000	2,800	2,450	1,611	2,800	4,061	70%	102%
25 Years of Service:							
\$1,500	\$ 750	\$ 656	\$ 882	\$ 750	\$1,538	50%	103%
2,000	1,000	875	1,028	1,000	1,903	50%	95%
2,500	1,250	1,094	1,174	1,250	2,268	50%	91%
3,000	1,500	1,313	1,320	1,500	2,633	50%	88%
3,500	1,750	1,531	1,465	1,750	2,996	50%	86%
4,000	2,000	1,750	1,611	2,000	3,361	50%	84%
15 Years of Service:							
\$1,500	\$ 450	\$ 394	\$ 882	\$ 450	\$1,276	30%	85%
2,000	600	525	1,028	600	1,553	30%	78%
2,500	750	656	1,174	750	1,830	30%	73%
3,000	900	788	1,320	900	2,108	30%	70%
3,500	1,050	919	1,465	1,050	2,384	30%	68%
4,000	1,200	1,050	1,611	1,200	2,661	30%	67%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

APPENDIX V

AGE AND SERVICE CHARACTERISTICS OF EMPLOYEES

City of Kirkwood - General

March 31, 2017

By Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
Under 20									
20-24	3							3	\$ 53,026
25-29	4							4	\$ 150,227
30-34	9	3						12	\$ 566,659
35-39	12	6	3					21	\$ 1,010,376
40-44	6	2	3	2				13	\$ 781,515
45-49	7	6	2	5		1		21	\$ 1,172,732
50-54	3	4	3	4	2	7	1	24	\$ 1,539,698
55-59	7	5	2	6	4	6	6	36	\$ 2,770,649
60-64	2	2	2	6	3	2	7	24	\$ 1,559,922
65-69	2	1		1	1	1		6	\$ 323,125
70 & Over									
Totals	55	29	15	24	10	17	14	164	\$ 9,927,929

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 49.1 years.

Benefit Service: 0.0 years.

Annual Pay: \$60,536.

City of Kirkwood - Police

March 31, 2017

By Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
Under 20									
20-24	2							2	\$ 108,227
25-29	3							3	\$ 185,306
30-34	4	4	1					9	\$ 595,150
35-39	1	4	2					7	\$ 481,317
40-44	3	1	4	4	1			13	\$ 952,213
45-49		4	2	1	2			9	\$ 694,626
50-54	1	1			1	1	1	5	\$ 444,032
55-59		1		1	1	3	3	9	\$ 787,609
60-64		1			1		1	3	\$ 270,878
65-69				1				1	\$ 134,235
70 & Over									
Totals	14	16	9	7	6	4	5	61	\$ 4,653,593

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 43.8 years.

Benefit Service: 0.0 years.

Annual Pay: \$76,288.

City of Kirkwood - Fire

March 31, 2017

By Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
Under 20									
20-24	1							1	\$ 15,316
25-29	6							6	\$ 395,144
30-34	4	3	1					8	\$ 575,301
35-39	2	1	1					4	\$ 315,592
40-44	1	5	1	2				9	\$ 781,720
45-49				2	3	2		7	\$ 686,798
50-54			4	1	3	3		11	\$ 977,588
55-59					1	2	2	5	\$ 489,559
60-64					1			1	\$ 87,796
65-69									
70 & Over									
Totals	14	9	7	5	8	7	2	52	\$ 4,324,814

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 42.8 years.

Benefit Service: 0.0 years.

Annual Pay: \$83,169.



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May 22, 2017 E-mail

Mr. Keith Hughes, Executive Secretary
Missouri Local Government
Employees Retirement System
P.O. Box 1665
Jefferson City, Missouri 65102

Dear Keith:

Enclosed is the report of the March 31, 2017 Initial Actuarial
Valuation of LAGERS benefits for the employees of

City of Kirkwood

Sincerely,

A handwritten signature in black ink, reading 'Mita Drazilov'.

Mita D. Drazilov

MDD:rmg