



The Initial Valuation For

Cottleville Fire Protection District

as of September 30, 2017



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January 19, 2018

Cottleville Fire Protection District
St. Charles, 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 28, 2017.

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 September 30, 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 opinions herein.

Respectfully submitted,

A handwritten signature in black ink that reads "Mita Drazilov". The signature is fluid and cursive, with the first name "Mita" and last name "Drazilov" clearly distinguishable.

Mita D. Drazilov, ASA, FCA, 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.

Cottleville Fire Protection District

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%	3.90%	0.20%	5.10%
	Fire	1.30	3.90	0.60	5.80
L-3	General	1.30	5.40	0.30	7.00
	Fire	1.70	5.50	0.70	7.90
LT-4(65)	General	1.10	4.60	0.20	5.90
	Fire	1.70	5.70	0.60	8.00
LT-5(65)	General	1.40	6.00	0.30	7.70
	Fire	1.90	6.90	0.70	9.50
L-7	General	1.60	7.00	0.30	8.90
	Fire	2.00	7.20	0.80	10.00
LT-8(65)	General	1.70	7.30	0.30	9.30
	Fire	2.20	8.10	0.80	11.10
L-12	General	1.90	8.60	0.40	10.90
	Fire	2.40	8.90	0.90	12.20
LT-14(65)	General	2.00	8.70	0.40	11.10
	Fire	2.50	9.40	0.90	12.80
L-6	General	2.30	10.10	0.50	12.90
	Fire	2.80	10.50	1.00	14.30

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

Cottleville Fire Protection District

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%	4.10%	0.20%	5.30%
	Fire	1.30	4.20	0.60	6.10
L-3	General	1.40	5.70	0.30	7.40
	Fire	1.70	5.80	0.70	8.20
LT-4(65)	General	1.10	4.80	0.20	6.10
	Fire	1.70	6.00	0.60	8.30
LT-5(65)	General	1.40	6.20	0.30	7.90
	Fire	2.00	7.20	0.70	9.90
L-7	General	1.70	7.30	0.30	9.30
	Fire	2.10	7.60	0.80	10.50
LT-8(65)	General	1.70	7.70	0.30	9.70
	Fire	2.30	8.50	0.80	11.60
L-12	General	2.00	8.90	0.40	11.30
	Fire	2.50	9.30	0.90	12.70
LT-14(65)	General	2.00	9.10	0.40	11.50
	Fire	2.60	9.70	0.90	13.20
L-6	General	2.30	10.50	0.50	13.30
	Fire	2.80	11.10	1.00	14.90

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

Cottleville Fire Protection District

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%	7.30%	0.20%	8.70%
	Fire	1.40	7.70	0.60	9.70
L-3	General	1.50	8.90	0.30	10.70
	Fire	1.70	9.40	0.70	11.80
LT-4(65)	General	1.30	8.00	0.20	9.50
	Fire	1.70	9.50	0.60	11.80
LT-5(65)	General	1.60	9.50	0.30	11.40
	Fire	2.00	10.70	0.70	13.40
L-7	General	1.80	10.60	0.30	12.70
	Fire	2.00	11.10	0.80	13.90
LT-8(65)	General	1.90	10.90	0.30	13.10
	Fire	2.20	12.00	0.80	15.00
L-12	General	2.20	12.20	0.40	14.80
	Fire	2.40	12.80	0.90	16.10
LT-14(65)	General	2.20	12.30	0.40	14.90
	Fire	2.50	13.30	0.90	16.70
L-6	General	2.50	13.80	0.50	16.80
	Fire	2.70	14.50	1.00	18.20

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

Cottleville Fire Protection District

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	1.30%	7.60%	0.20%	9.10%
	Fire	1.40	8.00	0.60	10.00
L-3	General	1.60	9.20	0.30	11.10
	Fire	1.70	9.70	0.70	12.10
LT-4(65)	General	1.40	8.30	0.20	9.90
	Fire	1.80	9.80	0.60	12.20
LT-5(65)	General	1.70	9.80	0.30	11.80
	Fire	2.00	11.10	0.70	13.80
L-7	General	1.90	10.90	0.30	13.10
	Fire	2.10	11.50	0.80	14.40
LT-8(65)	General	2.00	11.30	0.30	13.60
	Fire	2.30	12.40	0.80	15.50
L-12	General	2.20	12.50	0.40	15.10
	Fire	2.40	13.30	0.90	16.60
LT-14(65)	General	2.20	12.70	0.40	15.30
	Fire	2.50	13.70	0.90	17.10
L-6	General	2.50	14.20	0.50	17.20
	Fire	2.80	15.00	1.00	18.80

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

Cottleville Fire Protection District

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%	4.10%	0.20%	5.20%
	Fire	1.20	4.40	0.60	6.20
L-3	General	1.20	5.70	0.30	7.20
	Fire	1.50	6.20	0.70	8.40
LT-4(65)	General	1.00	5.10	0.20	6.30
	Fire	1.70	6.80	0.60	9.10
LT-5(65)	General	1.20	6.50	0.30	8.00
	Fire	1.90	8.00	0.70	10.60
L-7	General	1.40	7.40	0.30	9.10
	Fire	1.80	8.10	0.80	10.70
LT-8(65)	General	1.50	7.90	0.30	9.70
	Fire	2.10	9.20	0.80	12.10
L-12	General	1.70	9.00	0.40	11.10
	Fire	2.20	9.80	0.90	12.90
LT-14(65)	General	1.70	9.20	0.40	11.30
	Fire	2.30	10.40	0.90	13.60
L-6	General	2.00	10.60	0.50	13.10
	Fire	2.50	11.60	1.00	15.10

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.

Cottleville Fire Protection District

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	0.90%	4.30%	0.20%	5.40%
	Fire	1.20	4.70	0.60	6.50
L-3	General	1.20	6.00	0.30	7.50
	Fire	1.60	6.50	0.70	8.80
LT-4(65)	General	1.00	5.40	0.20	6.60
	Fire	1.70	7.20	0.60	9.50
LT-5(65)	General	1.30	6.80	0.30	8.40
	Fire	2.00	8.40	0.70	11.10
L-7	General	1.50	7.70	0.30	9.50
	Fire	1.90	8.40	0.80	11.10
LT-8(65)	General	1.50	8.20	0.30	10.00
	Fire	2.20	9.70	0.80	12.70
L-12	General	1.80	9.40	0.40	11.60
	Fire	2.20	10.30	0.90	13.40
LT-14(65)	General	1.80	9.60	0.40	11.80
	Fire	2.40	10.90	0.90	14.20
L-6	General	2.10	11.10	0.50	13.70
	Fire	2.60	12.10	1.00	15.70

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.

Cottleville Fire Protection District

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%	7.60%	0.20%	8.90%
	Fire	1.20	8.20	0.60	10.00
L-3	General	1.40	9.30	0.30	11.00
	Fire	1.50	10.10	0.70	12.30
LT-4(65)	General	1.20	8.60	0.20	10.00
	Fire	1.70	10.70	0.60	13.00
LT-5(65)	General	1.40	10.00	0.30	11.70
	Fire	1.90	11.90	0.70	14.50
L-7	General	1.60	10.90	0.30	12.80
	Fire	1.90	11.90	0.80	14.60
LT-8(65)	General	1.70	11.40	0.30	13.40
	Fire	2.10	13.10	0.80	16.00
L-12	General	1.90	12.60	0.40	14.90
	Fire	2.20	13.70	0.90	16.80
LT-14(65)	General	1.90	12.90	0.40	15.20
	Fire	2.30	14.30	0.90	17.50
L-6	General	2.20	14.30	0.50	17.00
	Fire	2.50	15.50	1.00	19.00

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.

Cottleville Fire Protection District

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	1.10%	7.80%	0.20%	9.10%
	Fire	1.30	8.50	0.60	10.40
L-3	General	1.40	9.60	0.30	11.30
	Fire	1.60	10.40	0.70	12.70
LT-4(65)	General	1.20	8.80	0.20	10.20
	Fire	1.80	11.00	0.60	13.40
LT-5(65)	General	1.50	10.30	0.30	12.10
	Fire	2.00	12.30	0.70	15.00
L-7	General	1.70	11.30	0.30	13.30
	Fire	1.90	12.30	0.80	15.00
LT-8(65)	General	1.80	11.80	0.30	13.90
	Fire	2.20	13.60	0.80	16.60
L-12	General	2.00	13.00	0.40	15.40
	Fire	2.20	14.20	0.90	17.30
LT-14(65)	General	2.00	13.30	0.40	15.70
	Fire	2.40	14.80	0.90	18.10
L-6	General	2.30	14.70	0.50	17.50
	Fire	2.50	16.10	1.00	19.60

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.

Cottleville Fire Protection District

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

3 Year FAS		
Benefit Program	General	Fire
L-1	\$ 16,053	\$ 345,231
L-3	22,414	464,081
LT-4(65)	18,476	469,740
LT-5(65)	23,928	560,293
L-7	28,169	594,250
LT-8(65)	29,380	656,504
L-12	34,226	718,759
LT-14(65)	34,832	747,057
L-6	40,284	843,269

Non-Contributory Plan

3 Year FAS		
Benefit Program	General	Fire
L-1	\$ 27,563	\$ 565,952
L-3	33,621	684,802
LT-4(65)	29,986	690,462
LT-5(65)	35,741	781,014
L-7	39,678	814,971
LT-8(65)	41,193	877,226
L-12	45,736	939,481
LT-14(65)	46,342	967,778
L-6	52,097	1,063,990

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.

Cottleville Fire Protection District

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

3 Year FAS		
Benefit Program	General	Fire
L-1	\$ 16,356	\$ 367,869
L-3	22,717	498,038
LT-4(65)	19,991	537,655
LT-5(65)	25,443	628,207
L-7	28,774	628,207
LT-8(65)	30,289	718,759
L-12	35,135	758,376
LT-14(65)	35,741	803,652
L-6	41,496	888,545

Non-Contributory Plan

3 Year FAS		
Benefit Program	General	Fire
L-1	\$ 27,563	\$ 588,590
L-3	34,226	718,759
LT-4(65)	30,895	758,376
LT-5(65)	36,649	848,928
L-7	40,284	848,928
LT-8(65)	42,101	939,481
L-12	46,645	979,097
LT-14(65)	47,553	1,024,373
L-6	53,005	1,109,266

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.

Cottleville Fire Protection District

Employees and Payroll Included in the Valuation

	General	Fire
Number of Employees	5	56
Annual Payroll	\$ 302,888	\$ 5,659,521

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

APPENDIX I

UNFUNDED ACTUARIAL ACCRUED LIABILITY

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:

Cottleville Fire Protection District

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	\$ 53,209	\$ 55,435	\$ 65,642	\$ 67,760
	Fire	1,281,909	1,329,116	1,353,464	1,394,041
L-3	General	\$ 70,079	\$ 72,814	\$ 82,054	\$ 84,689
	Fire	1,652,439	1,710,743	1,691,984	1,742,642
LT-4(65)	General	58,145	60,502	70,503	72,815
	Fire	1,651,484	1,711,604	1,721,126	1,774,352
LT-5(65)	General	73,762	76,631	85,710	88,453
	Fire	1,929,729	1,997,533	1,967,708	2,027,884
L-7	General	86,912	90,164	98,450	101,635
	Fire	2,019,816	2,088,622	2,030,382	2,090,983
LT-8(65)	General	89,371	92,690	100,911	104,163
	Fire	2,204,678	2,279,921	2,214,152	2,281,217
L-12	General	103,652	107,407	114,861	118,572
	Fire	2,384,683	2,464,116	2,368,680	2,439,463
LT-14(65)	General	104,882	108,699	116,079	119,817
	Fire	2,477,047	2,559,730	2,460,619	2,534,621
L-6	General	120,366	124,650	131,281	135,507
	Fire	2,747,931	2,838,265	2,707,146	2,787,974

Cottleville Fire Protection District

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	\$ 46,661	\$ 48,628	\$ 58,439	\$ 60,320
	Fire	1,166,894	1,211,445	1,231,725	1,271,000
L-3	General	\$ 61,488	\$ 63,898	\$ 73,036	\$ 75,412
	Fire	1,500,331	1,555,357	1,539,803	1,588,830
LT-4(65)	General	52,364	54,505	64,058	66,155
	Fire	1,671,068	1,733,715	1,733,819	1,790,980
LT-5(65)	General	65,752	68,333	77,259	79,786
	Fire	1,878,452	1,946,972	1,916,307	1,978,844
L-7	General	76,289	79,181	87,617	90,478
	Fire	1,830,938	1,896,045	1,847,711	1,906,490
LT-8(65)	General	79,150	82,114	90,453	93,402
	Fire	2,083,039	2,157,209	2,098,748	2,166,467
L-12	General	91,042	94,383	102,249	105,551
	Fire	2,159,505	2,234,903	2,155,624	2,224,269
LT-14(65)	General	92,470	95,863	103,656	107,009
	Fire	2,285,495	2,365,342	2,281,128	2,354,284
L-6	General	105,760	109,595	116,837	120,627
	Fire	2,486,998	2,572,712	2,463,574	2,541,935

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 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 and disability 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 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.

Separations From Active Employment (Not Including Death-In-Service) Before Age & Service Retirement and Individual Pay Increase Assumptions

		Percent of Active Members Separating Within Next Year							
Sample Ages	Years of Service	General Members				Police		Fire	
		Men		Women		Disability	Withdrawal	Disability	Withdrawal
		Disability	Withdrawal	Disability	Withdrawal				
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	0.09%	7.30	0.02%	10.80	0.10%	9.80	0.06%	5.00
30		0.12	6.50	0.03	8.90	0.11	7.80	0.10	4.00
35		0.15	5.00	0.06	7.40	0.16	6.10	0.23	2.80
40		0.21	3.70	0.10	5.70	0.22	4.40	0.35	2.20
45		0.30	3.00	0.16	4.20	0.34	3.20	0.56	1.80
50		0.44	2.40	0.24	3.30	0.53	1.80	0.85	1.00
55		0.68	1.80	0.34	2.50	0.88	1.00	1.31	0.50
60		1.02	1.00	0.48	1.20		0.00		0.00
65			0.00		0.00		0.00		0.00

Sample Ages	Percent Increase in Individual's Pay During Next Year	
	General & Police	
	Fire	
25	6.55%	7.15%
30	5.75	6.05
35	5.25	5.15
40	4.75	4.45
45	4.25	4.15
50	3.85	3.85
55	3.65	3.65
60	3.55	3.25
65	3.25	3.25

Schedule 2.

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

Early Retirement

Retirement	General Members		Retirement		
Ages	Men	Women	Ages	Police	Fire
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	General Members		Retirement		
Ages	Men	Women	Ages	Police	Fire
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 28, 2017

(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	\$ 875	\$1,400	93%
2,000	700	1,016	1,716	86%
2,500	875	1,157	2,032	81%
3,000	1,050	1,297	2,347	78%
3,500	1,225	1,438	2,663	76%
4,000	1,400	1,579	2,979	74%
25 Years of Service:				
\$1,500	\$ 375	\$ 875	\$1,250	83%
2,000	500	1,016	1,516	76%
2,500	625	1,157	1,782	71%
3,000	750	1,297	2,047	68%
3,500	875	1,438	2,313	66%
4,000	1,000	1,579	2,579	64%
15 Years of Service:				
\$1,500	\$225	\$ 875	\$1,100	73%
2,000	300	1,016	1,316	66%
2,500	375	1,157	1,532	61%
3,000	450	1,297	1,747	58%
3,500	525	1,438	1,963	56%
4,000	600	1,579	2,179	54%

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 2017 - 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	\$ 875	\$1,531	102%
2,000	875	1,016	1,891	95%
2,500	1,094	1,157	2,251	90%
3,000	1,313	1,297	2,610	87%
3,500	1,531	1,438	2,969	85%
4,000	1,750	1,579	3,329	83%
25 Years of Service:				
\$1,500	\$ 469	\$ 875	\$1,344	90%
2,000	625	1,016	1,641	82%
2,500	781	1,157	1,938	78%
3,000	938	1,297	2,235	75%
3,500	1,094	1,438	2,532	72%
4,000	1,250	1,579	2,829	71%
15 Years of Service:				
\$1,500	\$281	\$ 875	\$1,156	77%
2,000	375	1,016	1,391	70%
2,500	469	1,157	1,626	65%
3,000	563	1,297	1,860	62%
3,500	656	1,438	2,094	60%
4,000	750	1,579	2,329	58%

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 2017 - 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	\$ 875	\$1,663	111%
2,000	1,050	1,016	2,066	103%
2,500	1,313	1,157	2,470	99%
3,000	1,575	1,297	2,872	96%
3,500	1,838	1,438	3,276	94%
4,000	2,100	1,579	3,679	92%
25 Years of Service:				
\$1,500	\$ 563	\$ 875	\$1,438	96%
2,000	750	1,016	1,766	88%
2,500	938	1,157	2,095	84%
3,000	1,125	1,297	2,422	81%
3,500	1,313	1,438	2,751	79%
4,000	1,500	1,579	3,079	77%
15 Years of Service:				
\$1,500	\$338	\$ 875	\$1,213	81%
2,000	450	1,016	1,466	73%
2,500	563	1,157	1,720	69%
3,000	675	1,297	1,972	66%
3,500	788	1,438	2,226	64%
4,000	900	1,579	2,479	62%

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 2017 - 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	\$ 875	\$1,794	120%
2,000	1,225	1,016	2,241	112%
2,500	1,531	1,157	2,688	108%
3,000	1,838	1,297	3,135	105%
3,500	2,144	1,438	3,582	102%
4,000	2,450	1,579	4,029	101%
25 Years of Service:				
\$1,500	\$ 656	\$ 875	\$1,531	102%
2,000	875	1,016	1,891	95%
2,500	1,094	1,157	2,251	90%
3,000	1,313	1,297	2,610	87%
3,500	1,531	1,438	2,969	85%
4,000	1,750	1,579	3,329	83%
15 Years of Service:				
\$1,500	\$ 394	\$ 875	\$1,269	85%
2,000	525	1,016	1,541	77%
2,500	656	1,157	1,813	73%
3,000	788	1,297	2,085	70%
3,500	919	1,438	2,357	67%
4,000	1,050	1,579	2,629	66%

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 2017 - 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	\$ 875	\$1,925	128%
2,000	1,400	1,016	2,416	121%
2,500	1,750	1,157	2,907	116%
3,000	2,100	1,297	3,397	113%
3,500	2,450	1,438	3,888	111%
4,000	2,800	1,579	4,379	109%
25 Years of Service:				
\$1,500	\$ 750	\$ 875	\$1,625	108%
2,000	1,000	1,016	2,016	101%
2,500	1,250	1,157	2,407	96%
3,000	1,500	1,297	2,797	93%
3,500	1,750	1,438	3,188	91%
4,000	2,000	1,579	3,579	89%
15 Years of Service:				
\$1,500	\$ 450	\$ 875	\$1,325	88%
2,000	600	1,016	1,616	81%
2,500	750	1,157	1,907	76%
3,000	900	1,297	2,197	73%
3,500	1,050	1,438	2,488	71%
4,000	1,200	1,579	2,779	69%

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 2017 - 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 FAS ¹ to age 65)
1.00% of FAS ¹ 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	\$ 875	\$1,050	\$1,400	70%	93%
2,000	1,400	700	1,016	1,400	1,716	70%	86%
2,500	1,750	875	1,157	1,750	2,032	70%	81%
3,000	2,100	1,050	1,297	2,100	2,347	70%	78%
3,500	2,450	1,225	1,438	2,450	2,663	70%	76%
4,000	2,800	1,400	1,579	2,800	2,979	70%	74%
25 Years of Service:							
\$1,500	\$ 750	\$ 375	\$ 875	\$ 750	\$1,250	50%	83%
2,000	1,000	500	1,016	1,000	1,516	50%	76%
2,500	1,250	625	1,157	1,250	1,782	50%	71%
3,000	1,500	750	1,297	1,500	2,047	50%	68%
3,500	1,750	875	1,438	1,750	2,313	50%	66%
4,000	2,000	1,000	1,579	2,000	2,579	50%	64%
15 Years of Service:							
\$1,500	\$ 450	\$225	\$ 875	\$ 450	\$1,100	30%	73%
2,000	600	300	1,016	600	1,316	30%	66%
2,500	750	375	1,157	750	1,532	30%	61%
3,000	900	450	1,297	900	1,747	30%	58%
3,500	1,050	525	1,438	1,050	1,963	30%	56%
4,000	1,200	600	1,579	1,200	2,179	30%	54%

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 2017 - 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 FAS ¹ to age 65)
1.25% of FAS ¹ 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	\$ 875	\$1,050	\$1,531	70%	102%
2,000	1,400	875	1,016	1,400	1,891	70%	95%
2,500	1,750	1,094	1,157	1,750	2,251	70%	90%
3,000	2,100	1,313	1,297	2,100	2,610	70%	87%
3,500	2,450	1,531	1,438	2,450	2,969	70%	85%
4,000	2,800	1,750	1,579	2,800	3,329	70%	83%
25 Years of Service:							
\$1,500	\$ 750	\$ 469	\$ 875	\$ 750	\$1,344	50%	90%
2,000	1,000	625	1,016	1,000	1,641	50%	82%
2,500	1,250	781	1,157	1,250	1,938	50%	78%
3,000	1,500	938	1,297	1,500	2,235	50%	75%
3,500	1,750	1,094	1,438	1,750	2,532	50%	72%
4,000	2,000	1,250	1,579	2,000	2,829	50%	71%
15 Years of Service:							
\$1,500	\$ 450	\$281	\$ 875	\$ 450	\$1,156	30%	77%
2,000	600	375	1,016	600	1,391	30%	70%
2,500	750	469	1,157	750	1,626	30%	65%
3,000	900	563	1,297	900	1,860	30%	62%
3,500	1,050	656	1,438	1,050	2,094	30%	60%
4,000	1,200	750	1,579	1,200	2,329	30%	58%

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 2017 - 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 FAS ¹ to age 65)
1.50% of FAS ¹ 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	\$ 875	\$1,050	\$1,663	70%	111%
2,000	1,400	1,050	1,016	1,400	2,066	70%	103%
2,500	1,750	1,313	1,157	1,750	2,470	70%	99%
3,000	2,100	1,575	1,297	2,100	2,872	70%	96%
3,500	2,450	1,838	1,438	2,450	3,276	70%	94%
4,000	2,800	2,100	1,579	2,800	3,679	70%	92%
25 Years of Service:							
\$1,500	\$ 750	\$ 563	\$ 875	\$ 750	\$1,438	50%	96%
2,000	1,000	750	1,016	1,000	1,766	50%	88%
2,500	1,250	938	1,157	1,250	2,095	50%	84%
3,000	1,500	1,125	1,297	1,500	2,422	50%	81%
3,500	1,750	1,313	1,438	1,750	2,751	50%	79%
4,000	2,000	1,500	1,579	2,000	3,079	50%	77%
15 Years of Service:							
\$1,500	\$ 450	\$338	\$ 875	\$ 450	\$1,213	30%	81%
2,000	600	450	1,016	600	1,466	30%	73%
2,500	750	563	1,157	750	1,720	30%	69%
3,000	900	675	1,297	900	1,972	30%	66%
3,500	1,050	788	1,438	1,050	2,226	30%	64%
4,000	1,200	900	1,579	1,200	2,479	30%	62%

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 2017 - 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 FAS ¹ to age 65)
1.75% of FAS ¹ 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	\$ 875	\$1,050	\$1,794	70%	120%
2,000	1,400	1,225	1,016	1,400	2,241	70%	112%
2,500	1,750	1,531	1,157	1,750	2,688	70%	108%
3,000	2,100	1,838	1,297	2,100	3,135	70%	105%
3,500	2,450	2,144	1,438	2,450	3,582	70%	102%
4,000	2,800	2,450	1,579	2,800	4,029	70%	101%
25 Years of Service:							
\$1,500	\$ 750	\$ 656	\$ 875	\$ 750	\$1,531	50%	102%
2,000	1,000	875	1,016	1,000	1,891	50%	95%
2,500	1,250	1,094	1,157	1,250	2,251	50%	90%
3,000	1,500	1,313	1,297	1,500	2,610	50%	87%
3,500	1,750	1,531	1,438	1,750	2,969	50%	85%
4,000	2,000	1,750	1,579	2,000	3,329	50%	83%
15 Years of Service:							
\$1,500	\$ 450	\$ 394	\$ 875	\$ 450	\$1,269	30%	85%
2,000	600	525	1,016	600	1,541	30%	77%
2,500	750	656	1,157	750	1,813	30%	73%
3,000	900	788	1,297	900	2,085	30%	70%
3,500	1,050	919	1,438	1,050	2,357	30%	67%
4,000	1,200	1,050	1,579	1,200	2,629	30%	66%

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 2017 - 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

Cottleville Fire Protection District - General

September 30, 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									
25-29									
30-34									
35-39									
40-44		1						1	\$ 52,000
45-49	1	1						2	\$ 98,423
50-54									
55-59						1		1	\$ 80,263
60-64		1						1	\$ 72,202
65-69									
70 & Over									
Totals	1	3				1		5	\$ 302,888

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

Age: 51.0 years.

Benefit Service: 0.0 years.

Annual Pay: \$ 60,578.

Cottleville Fire Protection District - Fire

September 30, 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	\$ 160,145
25-29	3							3	\$ 282,279
30-34	4							4	\$ 341,011
35-39	3	1						4	\$ 363,150
40-44	3	1	1	2	2			9	\$ 960,158
45-49	1	1		6	8	4		20	\$ 2,076,906
50-54				3	2	1	2	8	\$ 856,740
55-59			1			1	1	3	\$ 294,783
60-64	1					1	1	3	\$ 324,349
65-69									
70 & Over									
Totals	17	3	2	11	12	7	4	56	\$ 5,659,521

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

Age: 44.3 years.

Benefit Service: 0.0 years.

Annual Pay: \$ 101,063.

January 19, 2018 E-mail

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

Dear Bob:

Enclosed is the report of the September 30, 2017 Initial Actuarial Valuation of LAGERS benefits for the employees of

Cottleville Fire Protection District

Sincerely,



Mita D. Drazilov, ASA, FCA, MAAA

MDD:wp

January 19, 2018

Cottleville Fire Protection District
St. Charles, Missouri

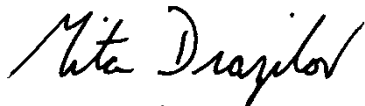
Ladies and Gentlemen:

This report contains projections needed to comply with Missouri state disclosure requirements (Section 105.660 of the RSMo) regarding the adoption of LAGERS benefits by a political subdivision. This report is intended to be a supplement to the September 30, 2017 Initial Valuation for the Cottleville Fire Protection District dated January 19, 2018.

The actuarial assumptions and methods used to determine the stated costs are described in Appendix II of the Initial Valuation 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 28, 2017.

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 opinions herein.

Respectfully submitted,



Mita D. Drazilov, ASA, FCA, MAAA

Cottleville Fire Protection District - General

Employer Contribution Rates (Contributory Plan - 5 Year FAS)

(4% member contributions are additional)

Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2017	\$ 302,888	5.1%	\$15,447	\$ 53,209	7.0%	\$21,202	\$ 70,079	5.9%	\$17,870	\$ 58,145
2018	312,732	5.1	15,949	53,938	7.0	21,891	71,039	5.9	18,451	58,942
2019	322,896	5.1	16,468	54,618	7.0	22,603	71,935	5.9	19,051	59,685
2020	333,390	5.1	17,003	55,242	7.0	23,337	72,757	5.9	19,670	60,367
2021	344,225	5.1	17,555	55,803	7.0	24,096	73,496	5.9	20,309	60,980
2022	355,412	5.1	18,126	56,293	7.0	24,879	74,141	5.9	20,969	61,516
2023	366,963	5.1	18,715	56,703	7.0	25,687	74,681	5.9	21,651	61,964
2024	378,889	5.1	19,323	57,023	7.0	26,522	75,103	5.9	22,354	62,314
2025	391,203	5.1	19,951	57,244	7.0	27,384	75,393	5.9	23,081	62,555
2026	403,917	5.1	20,600	57,353	7.0	28,274	75,537	5.9	23,831	62,674

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 302,888	7.7%	\$23,322	\$ 73,762	8.9%	\$26,957	\$ 86,912	9.3%	\$28,169	\$ 89,371
2018	312,732	7.7	24,080	74,773	8.9	27,833	88,103	9.3	29,084	90,595
2019	322,896	7.7	24,863	75,716	8.9	28,738	89,214	9.3	30,029	91,737
2020	333,390	7.7	25,671	76,582	8.9	29,672	90,234	9.3	31,005	92,786
2021	344,225	7.7	26,505	77,360	8.9	30,636	91,151	9.3	32,013	93,729
2022	355,412	7.7	27,367	78,039	8.9	31,632	91,952	9.3	33,053	94,552
2023	366,963	7.7	28,256	78,607	8.9	32,660	92,622	9.3	34,128	95,241
2024	378,889	7.7	29,174	79,051	8.9	33,721	93,145	9.3	35,237	95,779
2025	391,203	7.7	30,123	79,357	8.9	34,817	93,505	9.3	36,382	96,149
2026	403,917	7.7	31,102	79,509	8.9	35,949	93,684	9.3	37,564	96,333

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 302,888	10.9%	\$33,015	\$ 103,652	11.1%	\$33,621	\$ 104,882	12.9%	\$39,073	\$ 120,366
2018	312,732	10.9	34,088	105,072	11.1	34,713	106,319	12.9	40,342	122,015
2019	322,896	10.9	35,196	106,397	11.1	35,841	107,660	12.9	41,654	123,554
2020	333,390	10.9	36,340	107,613	11.1	37,006	108,891	12.9	43,007	124,967
2021	344,225	10.9	37,521	108,706	11.1	38,209	109,997	12.9	44,405	126,237
2022	355,412	10.9	38,740	109,661	11.1	39,451	110,963	12.9	45,848	127,346
2023	366,963	10.9	39,999	110,460	11.1	40,733	111,771	12.9	47,338	128,274
2024	378,889	10.9	41,299	111,084	11.1	42,057	112,403	12.9	48,877	128,999
2025	391,203	10.9	42,641	111,514	11.1	43,424	112,838	12.9	50,465	129,498
2026	403,917	10.9	44,027	111,727	11.1	44,835	113,053	12.9	52,105	129,745

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

Cottleville Fire Protection District - General

Employer Contribution Rates (Contributory Plan - 3 Year FAS)

(4% member contributions are additional)

Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2017	\$ 302,888	5.3%	\$16,053	\$ 55,435	7.4%	\$22,414	\$ 72,814	6.1%	\$18,476	\$ 60,502
2018	312,732	5.3	16,575	56,194	7.4	23,142	73,812	6.1	19,077	61,331
2019	322,896	5.3	17,113	56,903	7.4	23,894	74,743	6.1	19,697	62,104
2020	333,390	5.3	17,670	57,554	7.4	24,671	75,598	6.1	20,337	62,814
2021	344,225	5.3	18,244	58,139	7.4	25,473	76,366	6.1	20,998	63,452
2022	355,412	5.3	18,837	58,650	7.4	26,300	77,037	6.1	21,680	64,009
2023	366,963	5.3	19,449	59,077	7.4	27,155	77,598	6.1	22,385	64,475
2024	378,889	5.3	20,081	59,411	7.4	28,038	78,037	6.1	23,112	64,839
2025	391,203	5.3	20,734	59,641	7.4	28,949	78,339	6.1	23,863	65,090
2026	403,917	5.3	21,408	59,755	7.4	29,890	78,489	6.1	24,639	65,214

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 302,888	7.9%	\$23,928	\$ 76,631	9.3%	\$28,169	\$ 90,164	9.7%	\$29,380	\$ 92,690
2018	312,732	7.9	24,706	77,681	9.3	29,084	91,399	9.7	30,335	93,960
2019	322,896	7.9	25,509	78,661	9.3	30,029	92,551	9.7	31,321	95,145
2020	333,390	7.9	26,338	79,560	9.3	31,005	93,609	9.7	32,339	96,233
2021	344,225	7.9	27,194	80,368	9.3	32,013	94,560	9.7	33,390	97,211
2022	355,412	7.9	28,078	81,074	9.3	33,053	95,390	9.7	34,475	98,065
2023	366,963	7.9	28,990	81,665	9.3	34,128	96,085	9.7	35,595	98,779
2024	378,889	7.9	29,932	82,127	9.3	35,237	96,628	9.7	36,752	99,337
2025	391,203	7.9	30,905	82,445	9.3	36,382	97,002	9.7	37,947	99,721
2026	403,917	7.9	31,909	82,602	9.3	37,564	97,187	9.7	39,180	99,911

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 302,888	11.3%	\$34,226	\$ 107,407	11.5%	\$34,832	\$ 108,699	13.3%	\$40,284	\$ 124,650
2018	312,732	11.3	35,339	108,878	11.5	35,964	110,188	13.3	41,593	126,358
2019	322,896	11.3	36,487	110,251	11.5	37,133	111,577	13.3	42,945	127,951
2020	333,390	11.3	37,673	111,511	11.5	38,340	112,853	13.3	44,341	129,414
2021	344,225	11.3	38,897	112,644	11.5	39,586	114,000	13.3	45,782	130,729
2022	355,412	11.3	40,162	113,633	11.5	40,872	115,001	13.3	47,270	131,877
2023	366,963	11.3	41,467	114,461	11.5	42,201	115,839	13.3	48,806	132,838
2024	378,889	11.3	42,814	115,108	11.5	43,572	116,494	13.3	50,392	133,589
2025	391,203	11.3	44,206	115,553	11.5	44,988	116,944	13.3	52,030	134,106
2026	403,917	11.3	45,643	115,774	11.5	46,450	117,167	13.3	53,721	134,362

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

Cottleville Fire Protection District - General

Employer Contribution Rates (Non-Contributory Plan - 5 Year FAS)

(0% member contributions are additional)

Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2017	\$ 302,888	8.7%	\$26,351	\$ 65,642	10.7%	\$32,409	\$ 82,054	9.5%	\$28,774	\$ 70,503
2018	312,732	8.7	27,208	66,541	10.7	33,462	83,178	9.5	29,710	71,469
2019	322,896	8.7	28,092	67,380	10.7	34,550	84,227	9.5	30,675	72,370
2020	333,390	8.7	29,005	68,150	10.7	35,673	85,190	9.5	31,672	73,197
2021	344,225	8.7	29,948	68,842	10.7	36,832	86,056	9.5	32,701	73,941
2022	355,412	8.7	30,921	69,447	10.7	38,029	86,812	9.5	33,764	74,590
2023	366,963	8.7	31,926	69,953	10.7	39,265	87,444	9.5	34,861	75,133
2024	378,889	8.7	32,963	70,348	10.7	40,541	87,938	9.5	35,994	75,558
2025	391,203	8.7	34,035	70,620	10.7	41,859	88,278	9.5	37,164	75,850
2026	403,917	8.7	35,141	70,755	10.7	43,219	88,447	9.5	38,372	75,995

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 302,888	11.4%	\$34,529	\$ 85,710	12.7%	\$38,467	\$ 98,450	13.1%	\$39,678	\$ 100,911
2018	312,732	11.4	35,651	86,884	12.7	39,717	99,799	13.1	40,968	102,293
2019	322,896	11.4	36,810	87,980	12.7	41,008	101,057	13.1	42,299	103,583
2020	333,390	11.4	38,006	88,986	12.7	42,341	102,212	13.1	43,674	104,767
2021	344,225	11.4	39,242	89,890	12.7	43,717	103,251	13.1	45,093	105,832
2022	355,412	11.4	40,517	90,679	12.7	45,137	104,158	13.1	46,559	106,761
2023	366,963	11.4	41,834	91,340	12.7	46,604	104,917	13.1	48,072	107,539
2024	378,889	11.4	43,193	91,856	12.7	48,119	105,510	13.1	49,634	108,147
2025	391,203	11.4	44,597	92,211	12.7	49,683	105,918	13.1	51,248	108,565
2026	403,917	11.4	46,047	92,387	12.7	51,297	106,120	13.1	52,913	108,772

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 302,888	14.8%	\$44,827	\$ 114,861	14.9%	\$45,130	\$ 116,079	16.8%	\$50,885	\$ 131,281
2018	312,732	14.8	46,284	116,435	14.9	46,597	117,669	16.8	52,539	133,080
2019	322,896	14.8	47,789	117,903	14.9	48,112	119,153	16.8	54,247	134,758
2020	333,390	14.8	49,342	119,251	14.9	49,675	120,515	16.8	56,010	136,299
2021	344,225	14.8	50,945	120,463	14.9	51,290	121,740	16.8	57,830	137,684
2022	355,412	14.8	52,601	121,521	14.9	52,956	122,809	16.8	59,709	138,893
2023	366,963	14.8	54,311	122,406	14.9	54,677	123,704	16.8	61,650	139,905
2024	378,889	14.8	56,076	123,098	14.9	56,454	124,403	16.8	63,653	140,696
2025	391,203	14.8	57,898	123,574	14.9	58,289	124,884	16.8	65,722	141,240
2026	403,917	14.8	59,780	123,810	14.9	60,184	125,122	16.8	67,858	141,510

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

Cottleville Fire Protection District - General

Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS)

(0% member contributions are additional)

Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2017	\$ 302,888	9.1%	\$27,563	\$ 67,760	11.1%	\$33,621	\$ 84,689	9.9%	\$29,986	\$ 72,815
2018	312,732	9.1	28,459	68,688	11.1	34,713	85,849	9.9	30,960	73,813
2019	322,896	9.1	29,384	69,554	11.1	35,841	86,932	9.9	31,967	74,744
2020	333,390	9.1	30,338	70,349	11.1	37,006	87,926	9.9	33,006	75,599
2021	344,225	9.1	31,324	71,064	11.1	38,209	88,819	9.9	34,078	76,367
2022	355,412	9.1	32,342	71,688	11.1	39,451	89,599	9.9	35,186	77,038
2023	366,963	9.1	33,394	72,210	11.1	40,733	90,252	9.9	36,329	77,599
2024	378,889	9.1	34,479	72,618	11.1	42,057	90,762	9.9	37,510	78,038
2025	391,203	9.1	35,599	72,899	11.1	43,424	91,113	9.9	38,729	78,340
2026	403,917	9.1	36,756	73,038	11.1	44,835	91,287	9.9	39,988	78,490

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 302,888	11.8%	\$35,741	\$ 88,453	13.1%	\$39,678	\$ 101,635	13.6%	\$41,193	\$ 104,163
2018	312,732	11.8	36,902	89,665	13.1	40,968	103,027	13.6	42,532	105,590
2019	322,896	11.8	38,102	90,796	13.1	42,299	104,326	13.6	43,914	106,921
2020	333,390	11.8	39,340	91,834	13.1	43,674	105,519	13.6	45,341	108,143
2021	344,225	11.8	40,619	92,767	13.1	45,093	106,591	13.6	46,815	109,242
2022	355,412	11.8	41,939	93,582	13.1	46,559	107,527	13.6	48,336	110,201
2023	366,963	11.8	43,302	94,264	13.1	48,072	108,310	13.6	49,907	111,004
2024	378,889	11.8	44,709	94,797	13.1	49,634	108,922	13.6	51,529	111,631
2025	391,203	11.8	46,162	95,164	13.1	51,248	109,343	13.6	53,204	112,063
2026	403,917	11.8	47,662	95,346	13.1	52,913	109,552	13.6	54,933	112,277

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 302,888	15.1%	\$45,736	\$ 118,572	15.3%	\$46,342	\$ 119,817	17.2%	\$52,097	\$ 135,507
2018	312,732	15.1	47,223	120,196	15.3	47,848	121,458	17.2	53,790	137,363
2019	322,896	15.1	48,757	121,712	15.3	49,403	122,990	17.2	55,538	139,095
2020	333,390	15.1	50,342	123,104	15.3	51,009	124,396	17.2	57,343	140,685
2021	344,225	15.1	51,978	124,355	15.3	52,666	125,660	17.2	59,207	142,114
2022	355,412	15.1	53,667	125,447	15.3	54,378	126,764	17.2	61,131	143,362
2023	366,963	15.1	55,411	126,361	15.3	56,145	127,687	17.2	63,118	144,406
2024	378,889	15.1	57,212	127,075	15.3	57,970	128,409	17.2	65,169	145,222
2025	391,203	15.1	59,072	127,566	15.3	59,854	128,906	17.2	67,287	145,784
2026	403,917	15.1	60,991	127,810	15.3	61,799	129,152	17.2	69,474	146,062

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

Cottleville Fire Protection District - General

Employer Contribution Rates (Contributory Plan - 5 Year FAS)

(4% member contributions are additional)

Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2017	\$ 302,888	5.2%	\$15,750	\$ 46,661	7.2%	\$21,808	\$ 61,488	6.3%	\$19,082	\$ 52,364
2018	312,732	5.2	16,262	47,300	7.2	22,517	62,330	6.3	19,702	53,081
2019	322,896	5.2	16,791	47,896	7.2	23,249	63,116	6.3	20,342	53,750
2020	333,390	5.2	17,336	48,444	7.2	24,004	63,838	6.3	21,004	54,365
2021	344,225	5.2	17,900	48,936	7.2	24,784	64,487	6.3	21,686	54,917
2022	355,412	5.2	18,481	49,366	7.2	25,590	65,053	6.3	22,391	55,399
2023	366,963	5.2	19,082	49,726	7.2	26,421	65,527	6.3	23,119	55,803
2024	378,889	5.2	19,702	50,007	7.2	27,280	65,897	6.3	23,870	56,118
2025	391,203	5.2	20,343	50,200	7.2	28,167	66,152	6.3	24,646	56,335
2026	403,917	5.2	21,004	50,296	7.2	29,082	66,278	6.3	25,447	56,443

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 302,888	8.0%	\$24,231	\$ 65,752	9.1%	\$27,563	\$ 76,289	9.7%	\$29,380	\$ 79,150
2018	312,732	8.0	25,019	66,653	9.1	28,459	77,334	9.7	30,335	80,234
2019	322,896	8.0	25,832	67,493	9.1	29,384	78,309	9.7	31,321	81,246
2020	333,390	8.0	26,671	68,265	9.1	30,338	79,204	9.7	32,339	82,175
2021	344,225	8.0	27,538	68,959	9.1	31,324	80,009	9.7	33,390	83,010
2022	355,412	8.0	28,433	69,565	9.1	32,342	80,712	9.7	34,475	83,739
2023	366,963	8.0	29,357	70,072	9.1	33,394	81,300	9.7	35,595	84,349
2024	378,889	8.0	30,311	70,468	9.1	34,479	81,759	9.7	36,752	84,826
2025	391,203	8.0	31,296	70,741	9.1	35,599	82,075	9.7	37,947	85,154
2026	403,917	8.0	32,313	70,876	9.1	36,756	82,232	9.7	39,180	85,317

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 302,888	11.1%	\$33,621	\$ 91,042	11.3%	\$34,226	\$ 92,470	13.1%	\$39,678	\$ 105,760
2018	312,732	11.1	34,713	92,289	11.3	35,339	93,737	13.1	40,968	107,209
2019	322,896	11.1	35,841	93,453	11.3	36,487	94,919	13.1	42,299	108,561
2020	333,390	11.1	37,006	94,521	11.3	37,673	96,004	13.1	43,674	109,802
2021	344,225	11.1	38,209	95,481	11.3	38,897	96,979	13.1	45,093	110,918
2022	355,412	11.1	39,451	96,320	11.3	40,162	97,831	13.1	46,559	111,892
2023	366,963	11.1	40,733	97,022	11.3	41,467	98,544	13.1	48,072	112,707
2024	378,889	11.1	42,057	97,570	11.3	42,814	99,101	13.1	49,634	113,344
2025	391,203	11.1	43,424	97,947	11.3	44,206	99,484	13.1	51,248	113,782
2026	403,917	11.1	44,835	98,134	11.3	45,643	99,674	13.1	52,913	113,999

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

Cottleville Fire Protection District - General

Employer Contribution Rates (Contributory Plan - 3 Year FAS)

(4% member contributions are additional)

Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2017	\$ 302,888	5.4%	\$16,356	\$ 48,628	7.5%	\$22,717	\$ 63,898	6.6%	\$19,991	\$ 54,505
2018	312,732	5.4	16,888	49,294	7.5	23,455	64,773	6.6	20,640	55,252
2019	322,896	5.4	17,436	49,916	7.5	24,217	65,590	6.6	21,311	55,949
2020	333,390	5.4	18,003	50,487	7.5	25,004	66,340	6.6	22,004	56,589
2021	344,225	5.4	18,588	51,000	7.5	25,817	67,014	6.6	22,719	57,164
2022	355,412	5.4	19,192	51,448	7.5	26,656	67,603	6.6	23,457	57,666
2023	366,963	5.4	19,816	51,823	7.5	27,522	68,095	6.6	24,220	58,086
2024	378,889	5.4	20,460	52,116	7.5	28,417	68,480	6.6	25,007	58,414
2025	391,203	5.4	21,125	52,318	7.5	29,340	68,745	6.6	25,819	58,640
2026	403,917	5.4	21,812	52,418	7.5	30,294	68,876	6.6	26,659	58,752

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 302,888	8.4%	\$25,443	\$ 68,333	9.5%	\$28,774	\$ 79,181	10.0%	\$30,289	\$ 82,114
2018	312,732	8.4	26,269	69,269	9.5	29,710	80,266	10.0	31,273	83,239
2019	322,896	8.4	27,123	70,142	9.5	30,675	81,278	10.0	32,290	84,289
2020	333,390	8.4	28,005	70,944	9.5	31,672	82,207	10.0	33,339	85,253
2021	344,225	8.4	28,915	71,665	9.5	32,701	83,042	10.0	34,423	86,119
2022	355,412	8.4	29,855	72,294	9.5	33,764	83,771	10.0	35,541	86,875
2023	366,963	8.4	30,825	72,821	9.5	34,861	84,381	10.0	36,696	87,508
2024	378,889	8.4	31,827	73,233	9.5	35,994	84,858	10.0	37,889	88,003
2025	391,203	8.4	32,861	73,516	9.5	37,164	85,186	10.0	39,120	88,343
2026	403,917	8.4	33,929	73,656	9.5	38,372	85,349	10.0	40,392	88,512

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 302,888	11.6%	\$35,135	\$ 94,383	11.8%	\$35,741	\$ 95,863	13.7%	\$41,496	\$ 109,595
2018	312,732	11.6	36,277	95,676	11.8	36,902	97,176	13.7	42,844	111,096
2019	322,896	11.6	37,456	96,882	11.8	38,102	98,401	13.7	44,237	112,497
2020	333,390	11.6	38,673	97,990	11.8	39,340	99,526	13.7	45,674	113,783
2021	344,225	11.6	39,930	98,986	11.8	40,619	100,537	13.7	47,159	114,939
2022	355,412	11.6	41,228	99,855	11.8	41,939	101,420	13.7	48,691	115,948
2023	366,963	11.6	42,568	100,582	11.8	43,302	102,159	13.7	50,274	116,793
2024	378,889	11.6	43,951	101,150	11.8	44,709	102,736	13.7	51,908	117,453
2025	391,203	11.6	45,380	101,541	11.8	46,162	103,133	13.7	53,595	117,907
2026	403,917	11.6	46,854	101,735	11.8	47,662	103,330	13.7	55,337	118,132

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

Cottleville Fire Protection District - General

Employer Contribution Rates (Non-Contributory Plan - 5 Year FAS)

(0% member contributions are additional)

Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2017	\$ 302,888	8.9%	\$26,957	\$ 58,439	11.0%	\$33,318	\$ 73,036	10.0%	\$30,289	\$ 64,058
2018	312,732	8.9	27,833	59,240	11.0	34,401	74,037	10.0	31,273	64,936
2019	322,896	8.9	28,738	59,987	11.0	35,519	74,971	10.0	32,290	65,755
2020	333,390	8.9	29,672	60,673	11.0	36,673	75,828	10.0	33,339	66,507
2021	344,225	8.9	30,636	61,289	11.0	37,865	76,598	10.0	34,423	67,183
2022	355,412	8.9	31,632	61,827	11.0	39,095	77,271	10.0	35,541	67,773
2023	366,963	8.9	32,660	62,277	11.0	40,366	77,834	10.0	36,696	68,267
2024	378,889	8.9	33,721	62,629	11.0	41,678	78,274	10.0	37,889	68,653
2025	391,203	8.9	34,817	62,871	11.0	43,032	78,577	10.0	39,120	68,918
2026	403,917	8.9	35,949	62,991	11.0	44,431	78,727	10.0	40,392	69,050

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 302,888	11.7%	\$35,438	\$ 77,259	12.8%	\$38,770	\$ 87,617	13.4%	\$40,587	\$ 90,453
2018	312,732	11.7	36,590	78,317	12.8	40,030	88,817	13.4	41,906	91,692
2019	322,896	11.7	37,779	79,305	12.8	41,331	89,937	13.4	43,268	92,848
2020	333,390	11.7	39,007	80,212	12.8	42,674	90,965	13.4	44,674	93,910
2021	344,225	11.7	40,274	81,027	12.8	44,061	91,889	13.4	46,126	94,864
2022	355,412	11.7	41,583	81,739	12.8	45,493	92,696	13.4	47,625	95,697
2023	366,963	11.7	42,935	82,334	12.8	46,971	93,371	13.4	49,173	96,394
2024	378,889	11.7	44,330	82,799	12.8	48,498	93,899	13.4	50,771	96,939
2025	391,203	11.7	45,771	83,119	12.8	50,074	94,262	13.4	52,421	97,314
2026	403,917	11.7	47,258	83,278	12.8	51,701	94,442	13.4	54,125	97,500

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 302,888	14.9%	\$45,130	\$ 102,249	15.2%	\$46,039	\$ 103,656	17.0%	\$51,491	\$ 116,837
2018	312,732	14.9	46,597	103,650	15.2	47,535	105,076	17.0	53,164	118,438
2019	322,896	14.9	48,112	104,957	15.2	49,080	106,401	17.0	54,892	119,931
2020	333,390	14.9	49,675	106,157	15.2	50,675	107,617	17.0	56,676	121,302
2021	344,225	14.9	51,290	107,236	15.2	52,322	108,710	17.0	58,518	122,535
2022	355,412	14.9	52,956	108,178	15.2	54,023	109,665	17.0	60,420	123,611
2023	366,963	14.9	54,677	108,966	15.2	55,778	110,464	17.0	62,384	124,511
2024	378,889	14.9	56,454	109,582	15.2	57,591	111,088	17.0	64,411	125,215
2025	391,203	14.9	58,289	110,006	15.2	59,463	111,518	17.0	66,505	125,699
2026	403,917	14.9	60,184	110,216	15.2	61,395	111,731	17.0	68,666	125,939

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

Cottleville Fire Protection District - General

Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS)

(0% member contributions are additional)

Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2017	\$ 302,888	9.1%	\$27,563	\$ 60,320	11.3%	\$34,226	\$ 75,412	10.2%	\$30,895	\$ 66,155
2018	312,732	9.1	28,459	61,146	11.3	35,339	76,445	10.2	31,899	67,061
2019	322,896	9.1	29,384	61,917	11.3	36,487	77,409	10.2	32,935	67,907
2020	333,390	9.1	30,338	62,625	11.3	37,673	78,294	10.2	34,006	68,683
2021	344,225	9.1	31,324	63,261	11.3	38,897	79,090	10.2	35,111	69,381
2022	355,412	9.1	32,342	63,817	11.3	40,162	79,785	10.2	36,252	69,990
2023	366,963	9.1	33,394	64,282	11.3	41,467	80,366	10.2	37,430	70,500
2024	378,889	9.1	34,479	64,645	11.3	42,814	80,820	10.2	38,647	70,898
2025	391,203	9.1	35,599	64,895	11.3	44,206	81,133	10.2	39,903	71,172
2026	403,917	9.1	36,756	65,019	11.3	45,643	81,288	10.2	41,200	71,308

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 302,888	12.1%	\$36,649	\$ 79,786	13.3%	\$40,284	\$ 90,478	13.9%	\$42,101	\$ 93,402
2018	312,732	12.1	37,841	80,879	13.3	41,593	91,718	13.9	43,470	94,682
2019	322,896	12.1	39,070	81,899	13.3	42,945	92,875	13.9	44,883	95,876
2020	333,390	12.1	40,340	82,835	13.3	44,341	93,937	13.9	46,341	96,972
2021	344,225	12.1	41,651	83,677	13.3	45,782	94,891	13.9	47,847	97,957
2022	355,412	12.1	43,005	84,412	13.3	47,270	95,724	13.9	49,402	98,817
2023	366,963	12.1	44,403	85,027	13.3	48,806	96,421	13.9	51,008	99,537
2024	378,889	12.1	45,846	85,508	13.3	50,392	96,966	13.9	52,666	100,100
2025	391,203	12.1	47,336	85,839	13.3	52,030	97,341	13.9	54,377	100,487
2026	403,917	12.1	48,874	86,003	13.3	53,721	97,527	13.9	56,144	100,679

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 302,888	15.4%	\$46,645	\$ 105,551	15.7%	\$47,553	\$ 107,009	17.5%	\$53,005	\$ 120,627
2018	312,732	15.4	48,161	106,997	15.7	49,099	108,475	17.5	54,728	122,280
2019	322,896	15.4	49,726	108,346	15.7	50,695	109,843	17.5	56,507	123,822
2020	333,390	15.4	51,342	109,585	15.7	52,342	111,099	17.5	58,343	125,238
2021	344,225	15.4	53,011	110,698	15.7	54,043	112,228	17.5	60,239	126,511
2022	355,412	15.4	54,733	111,670	15.7	55,800	113,214	17.5	62,197	127,622
2023	366,963	15.4	56,512	112,483	15.7	57,613	114,039	17.5	64,219	128,552
2024	378,889	15.4	58,349	113,119	15.7	59,486	114,684	17.5	66,306	129,279
2025	391,203	15.4	60,245	113,556	15.7	61,419	115,127	17.5	68,461	129,779
2026	403,917	15.4	62,203	113,773	15.7	63,415	115,347	17.5	70,685	130,027

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

Cottleville Fire Protection District - Fire

Employer Contribution Rates (Contributory Plan - 5 Year FAS)

(4% member contributions are additional)

Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2017	\$ 5,659,521	5.8%	\$328,252	\$ 1,281,909	7.9%	\$447,102	\$ 1,652,439	8.0%	\$452,762	\$ 1,651,484
2018	5,843,456	5.8	338,920	1,299,471	7.9	461,633	1,675,077	8.0	467,476	1,674,109
2019	6,033,368	5.8	349,935	1,315,857	7.9	476,636	1,696,199	8.0	482,669	1,695,218
2020	6,229,452	5.8	361,308	1,330,901	7.9	492,127	1,715,592	8.0	498,356	1,714,599
2021	6,431,909	5.8	373,051	1,344,424	7.9	508,121	1,733,024	8.0	514,553	1,732,021
2022	6,640,946	5.8	385,175	1,356,231	7.9	524,635	1,748,244	8.0	531,276	1,747,232
2023	6,856,777	5.8	397,693	1,366,110	7.9	541,685	1,760,979	8.0	548,542	1,759,959
2024	7,079,622	5.8	410,618	1,373,831	7.9	559,290	1,770,931	8.0	566,370	1,769,906
2025	7,309,710	5.8	423,963	1,379,144	7.9	577,467	1,777,779	8.0	584,777	1,776,750
2026	7,547,276	5.8	437,742	1,381,777	7.9	596,235	1,781,174	8.0	603,782	1,780,143

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 5,659,521	9.5%	\$537,655	\$ 1,929,729	10.0%	\$565,952	\$ 2,019,816	11.1%	\$628,207	\$ 2,204,678
2018	5,843,456	9.5	555,128	1,956,166	10.0	584,346	2,047,487	11.1	648,624	2,234,882
2019	6,033,368	9.5	573,170	1,980,832	10.0	603,337	2,073,305	11.1	669,704	2,263,062
2020	6,229,452	9.5	591,798	2,003,479	10.0	622,945	2,097,009	11.1	691,469	2,288,935
2021	6,431,909	9.5	611,031	2,023,836	10.0	643,191	2,118,317	11.1	713,942	2,312,193
2022	6,640,946	9.5	630,890	2,041,610	10.0	664,095	2,136,921	11.1	737,145	2,332,499
2023	6,856,777	9.5	651,394	2,056,482	10.0	685,678	2,152,487	11.1	761,102	2,349,490
2024	7,079,622	9.5	672,564	2,068,105	10.0	707,962	2,164,652	11.1	785,838	2,362,769
2025	7,309,710	9.5	694,422	2,076,102	10.0	730,971	2,173,023	11.1	811,378	2,371,906
2026	7,547,276	9.5	716,991	2,080,066	10.0	754,728	2,177,172	11.1	837,748	2,376,435

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 5,659,521	12.2%	\$690,462	\$ 2,384,683	12.8%	\$724,419	\$ 2,477,047	14.3%	\$809,312	\$ 2,747,931
2018	5,843,456	12.2	712,902	2,417,353	12.8	747,962	2,510,982	14.3	835,614	2,785,577
2019	6,033,368	12.2	736,071	2,447,834	12.8	772,271	2,542,644	14.3	862,772	2,820,701
2020	6,229,452	12.2	759,993	2,475,820	12.8	797,370	2,571,714	14.3	890,812	2,852,950
2021	6,431,909	12.2	784,693	2,500,977	12.8	823,284	2,597,845	14.3	919,763	2,881,939
2022	6,640,946	12.2	810,195	2,522,941	12.8	850,041	2,620,660	14.3	949,655	2,907,249
2023	6,856,777	12.2	836,527	2,541,319	12.8	877,667	2,639,750	14.3	980,519	2,928,426
2024	7,079,622	12.2	863,714	2,555,682	12.8	906,192	2,654,669	14.3	1,012,386	2,944,977
2025	7,309,710	12.2	891,785	2,565,565	12.8	935,643	2,664,935	14.3	1,045,289	2,956,365
7 2026	7,547,276	12.2	920,768	2,570,464	12.8	966,051	2,670,024	14.3	1,079,260	2,962,010

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

Cottleville Fire Protection District - Fire

Employer Contribution Rates (Contributory Plan - 3 Year FAS)

(4% member contributions are additional)

Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2017	\$ 5,659,521	6.1%	\$345,231	\$ 1,329,116	8.2%	\$464,081	\$ 1,710,743	8.3%	\$469,740	\$ 1,711,604
2018	5,843,456	6.1	356,451	1,347,325	8.2	479,163	1,734,180	8.3	485,007	1,735,053
2019	6,033,368	6.1	368,035	1,364,314	8.2	494,736	1,756,047	8.3	500,770	1,756,931
2020	6,229,452	6.1	379,997	1,379,912	8.2	510,815	1,776,124	8.3	517,045	1,777,018
2021	6,431,909	6.1	392,346	1,393,933	8.2	527,417	1,794,171	8.3	533,848	1,795,074
2022	6,640,946	6.1	405,098	1,406,175	8.2	544,558	1,809,928	8.3	551,199	1,810,839
2023	6,856,777	6.1	418,263	1,416,418	8.2	562,256	1,823,112	8.3	569,112	1,824,030
2024	7,079,622	6.1	431,857	1,424,423	8.2	580,529	1,833,416	8.3	587,609	1,834,339
2025	7,309,710	6.1	445,892	1,429,931	8.2	599,396	1,840,506	8.3	606,706	1,841,432
2026	7,547,276	6.1	460,384	1,432,661	8.2	618,877	1,844,020	8.3	626,424	1,844,948

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 5,659,521	9.9%	\$560,293	\$ 1,997,533	10.5%	\$594,250	\$ 2,088,622	11.6%	\$656,504	\$ 2,279,921
2018	5,843,456	9.9	578,502	2,024,899	10.5	613,563	2,117,236	11.6	677,841	2,311,156
2019	6,033,368	9.9	597,303	2,050,432	10.5	633,504	2,143,933	11.6	699,871	2,340,298
2020	6,229,452	9.9	616,716	2,073,874	10.5	654,092	2,168,444	11.6	722,616	2,367,054
2021	6,431,909	9.9	636,759	2,094,946	10.5	675,350	2,190,477	11.6	746,101	2,391,105
2022	6,640,946	9.9	657,454	2,113,345	10.5	697,299	2,209,715	11.6	770,350	2,412,105
2023	6,856,777	9.9	678,821	2,128,739	10.5	719,962	2,225,811	11.6	795,386	2,429,676
2024	7,079,622	9.9	700,883	2,140,770	10.5	743,360	2,238,391	11.6	821,236	2,443,408
2025	7,309,710	9.9	723,661	2,149,048	10.5	767,520	2,247,047	11.6	847,926	2,452,857
2026	7,547,276	9.9	747,180	2,153,152	10.5	792,464	2,251,338	11.6	875,484	2,457,541

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 5,659,521	12.7%	\$718,759	\$ 2,464,116	13.2%	\$747,057	\$ 2,559,730	14.9%	\$843,269	\$ 2,838,265
2018	5,843,456	12.7	742,119	2,497,874	13.2	771,336	2,594,798	14.9	870,675	2,877,149
2019	6,033,368	12.7	766,238	2,529,371	13.2	796,405	2,627,517	14.9	898,972	2,913,428
2020	6,229,452	12.7	791,140	2,558,289	13.2	822,288	2,657,557	14.9	928,188	2,946,737
2021	6,431,909	12.7	816,852	2,584,284	13.2	849,012	2,684,560	14.9	958,354	2,976,679
2022	6,640,946	12.7	843,400	2,606,980	13.2	876,605	2,708,137	14.9	989,501	3,002,821
2023	6,856,777	12.7	870,811	2,625,970	13.2	905,095	2,727,864	14.9	1,021,660	3,024,695
2024	7,079,622	12.7	899,112	2,640,811	13.2	934,510	2,743,281	14.9	1,054,864	3,041,790
2025	7,309,710	12.7	928,333	2,651,023	13.2	964,882	2,753,889	14.9	1,089,147	3,053,553
2026	7,547,276	12.7	958,504	2,656,085	13.2	996,240	2,759,147	14.9	1,124,544	3,059,384

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

Cottleville Fire Protection District - Fire

Employer Contribution Rates (Non-Contributory Plan - 5 Year FAS)

(0% member contributions are additional)

Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2017	\$ 5,659,521	9.7%	\$548,974	\$ 1,353,464	11.8%	\$667,824	\$ 1,691,984	11.8%	\$667,824	\$ 1,721,126
2018	5,843,456	9.7	566,815	1,372,006	11.8	689,528	1,715,164	11.8	689,528	1,744,705
2019	6,033,368	9.7	585,237	1,389,306	11.8	711,937	1,736,791	11.8	711,937	1,766,705
2020	6,229,452	9.7	604,257	1,405,190	11.8	735,075	1,756,648	11.8	735,075	1,786,904
2021	6,431,909	9.7	623,895	1,419,468	11.8	758,965	1,774,497	11.8	758,965	1,805,061
2022	6,640,946	9.7	644,172	1,431,934	11.8	783,632	1,790,081	11.8	783,632	1,820,914
2023	6,856,777	9.7	665,107	1,442,365	11.8	809,100	1,803,121	11.8	809,100	1,834,178
2024	7,079,622	9.7	686,723	1,450,517	11.8	835,395	1,813,312	11.8	835,395	1,844,544
2025	7,309,710	9.7	709,042	1,456,126	11.8	862,546	1,820,324	11.8	862,546	1,851,677
2026	7,547,276	9.7	732,086	1,458,906	11.8	890,579	1,823,800	11.8	890,579	1,855,213

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 5,659,521	13.4%	\$758,376	\$ 1,967,708	13.9%	\$786,673	\$ 2,030,382	15.0%	\$848,928	\$ 2,214,152
2018	5,843,456	13.4	783,023	1,994,665	13.9	812,240	2,058,198	15.0	876,518	2,244,486
2019	6,033,368	13.4	808,471	2,019,816	13.9	838,638	2,084,151	15.0	905,005	2,272,788
2020	6,229,452	13.4	834,747	2,042,908	13.9	865,894	2,107,979	15.0	934,418	2,298,773
2021	6,431,909	13.4	861,876	2,063,666	13.9	894,035	2,129,398	15.0	964,786	2,322,131
2022	6,640,946	13.4	889,887	2,081,790	13.9	923,091	2,148,099	15.0	996,142	2,342,525
2023	6,856,777	13.4	918,808	2,096,954	13.9	953,092	2,163,746	15.0	1,028,517	2,359,589
2024	7,079,622	13.4	948,669	2,108,805	13.9	984,067	2,175,975	15.0	1,061,943	2,372,925
2025	7,309,710	13.4	979,501	2,116,960	13.9	1,016,050	2,184,390	15.0	1,096,457	2,382,101
2026	7,547,276	13.4	1,011,335	2,121,002	13.9	1,049,071	2,188,561	15.0	1,132,091	2,386,650

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 5,659,521	16.1%	\$911,183	\$ 2,368,680	16.7%	\$945,140	\$ 2,460,619	18.2%	\$1,030,033	\$ 2,707,146
2018	5,843,456	16.1	940,796	2,401,131	16.7	975,857	2,494,329	18.2	1,063,509	2,744,233
2019	6,033,368	16.1	971,372	2,431,408	16.7	1,007,572	2,525,781	18.2	1,098,073	2,778,836
2020	6,229,452	16.1	1,002,942	2,459,206	16.7	1,040,318	2,554,658	18.2	1,133,760	2,810,606
2021	6,431,909	16.1	1,035,537	2,484,194	16.7	1,074,129	2,580,616	18.2	1,170,607	2,839,164
2022	6,640,946	16.1	1,069,192	2,506,011	16.7	1,109,038	2,603,280	18.2	1,208,652	2,864,099
2023	6,856,777	16.1	1,103,941	2,524,266	16.7	1,145,082	2,622,243	18.2	1,247,933	2,884,962
2024	7,079,622	16.1	1,139,819	2,538,532	16.7	1,182,297	2,637,063	18.2	1,288,491	2,901,267
2025	7,309,710	16.1	1,176,863	2,548,349	16.7	1,220,722	2,647,261	18.2	1,330,367	2,912,486
2026	7,547,276	16.1	1,215,111	2,553,215	16.7	1,260,395	2,652,316	18.2	1,373,604	2,918,047

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

Cottleville Fire Protection District - Fire

Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS)

(0% member contributions are additional)

Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2017	\$ 5,659,521	10.0%	\$565,952	\$ 1,394,041	12.1%	\$684,802	\$ 1,742,642	12.2%	\$690,462	\$ 1,774,352
2018	5,843,456	10.0	584,346	1,413,139	12.1	707,058	1,766,516	12.2	712,902	1,798,660
2019	6,033,368	10.0	603,337	1,430,958	12.1	730,038	1,788,791	12.2	736,071	1,821,340
2020	6,229,452	10.0	622,945	1,447,318	12.1	753,764	1,809,242	12.2	759,993	1,842,163
2021	6,431,909	10.0	643,191	1,462,024	12.1	778,261	1,827,626	12.2	784,693	1,860,881
2022	6,640,946	10.0	664,095	1,474,864	12.1	803,554	1,843,677	12.2	810,195	1,877,224
2023	6,856,777	10.0	685,678	1,485,607	12.1	829,670	1,857,107	12.2	836,527	1,890,898
2024	7,079,622	10.0	707,962	1,494,003	12.1	856,634	1,867,603	12.2	863,714	1,901,585
2025	7,309,710	10.0	730,971	1,499,780	12.1	884,475	1,874,825	12.2	891,785	1,908,939
2026	7,547,276	10.0	754,728	1,502,644	12.1	913,220	1,878,405	12.2	920,768	1,912,584

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 5,659,521	13.8%	\$781,014	\$ 2,027,884	14.4%	\$814,971	\$ 2,090,983	15.5%	\$877,226	\$ 2,281,217
2018	5,843,456	13.8	806,397	2,055,666	14.4	841,458	2,119,629	15.5	905,736	2,312,469
2019	6,033,368	13.8	832,605	2,081,587	14.4	868,805	2,146,356	15.5	935,172	2,341,628
2020	6,229,452	13.8	859,664	2,105,386	14.4	897,041	2,170,895	15.5	965,565	2,368,400
2021	6,431,909	13.8	887,603	2,126,779	14.4	926,195	2,192,953	15.5	996,946	2,392,465
2022	6,640,946	13.8	916,451	2,145,457	14.4	956,296	2,212,212	15.5	1,029,347	2,413,476
2023	6,856,777	13.8	946,235	2,161,085	14.4	987,376	2,228,327	15.5	1,062,800	2,431,057
2024	7,079,622	13.8	976,988	2,173,299	14.4	1,019,466	2,240,921	15.5	1,097,341	2,444,797
2025	7,309,710	13.8	1,008,740	2,181,703	14.4	1,052,598	2,249,587	15.5	1,133,005	2,454,251
2026	7,547,276	13.8	1,041,524	2,185,869	14.4	1,086,808	2,253,883	15.5	1,169,828	2,458,937

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 5,659,521	16.6%	\$939,481	\$ 2,439,463	17.1%	\$967,778	\$ 2,534,621	18.8%	\$1,063,990	\$ 2,787,974
2018	5,843,456	16.6	970,014	2,472,883	17.1	999,231	2,569,345	18.8	1,098,570	2,826,169
2019	6,033,368	16.6	1,001,539	2,504,064	17.1	1,031,706	2,601,743	18.8	1,134,273	2,861,805
2020	6,229,452	16.6	1,034,089	2,532,693	17.1	1,065,236	2,631,489	18.8	1,171,137	2,894,524
2021	6,431,909	16.6	1,067,697	2,558,427	17.1	1,099,856	2,658,227	18.8	1,209,199	2,923,935
2022	6,640,946	16.6	1,102,397	2,580,896	17.1	1,135,602	2,681,572	18.8	1,248,498	2,949,614
2023	6,856,777	16.6	1,138,225	2,599,696	17.1	1,172,509	2,701,105	18.8	1,289,074	2,971,100
2024	7,079,622	16.6	1,175,217	2,614,389	17.1	1,210,615	2,716,371	18.8	1,330,969	2,987,892
2025	7,309,710	16.6	1,213,412	2,624,499	17.1	1,249,960	2,726,875	18.8	1,374,225	2,999,446
2026	7,547,276	16.6	1,252,848	2,629,510	17.1	1,290,584	2,732,082	18.8	1,418,888	3,005,173

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

Cottleville Fire Protection District - Fire

Employer Contribution Rates (Contributory Plan - 5 Year FAS)

(4% member contributions are additional)

Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2017	\$ 5,659,521	6.2%	\$350,890	\$ 1,166,894	8.4%	\$475,400	\$ 1,500,331	9.1%	\$515,016	\$ 1,671,068
2018	5,843,456	6.2	362,294	1,182,880	8.4	490,850	1,520,885	9.1	531,754	1,693,961
2019	6,033,368	6.2	374,069	1,197,795	8.4	506,803	1,540,062	9.1	549,036	1,715,321
2020	6,229,452	6.2	386,226	1,211,489	8.4	523,274	1,557,669	9.1	566,880	1,734,932
2021	6,431,909	6.2	398,778	1,223,799	8.4	540,280	1,573,496	9.1	585,304	1,752,560
2022	6,640,946	6.2	411,739	1,234,547	8.4	557,839	1,587,315	9.1	604,326	1,767,952
2023	6,856,777	6.2	425,120	1,243,540	8.4	575,969	1,598,878	9.1	623,967	1,780,830
2024	7,079,622	6.2	438,937	1,250,568	8.4	594,688	1,607,914	9.1	644,246	1,790,895
2025	7,309,710	6.2	453,202	1,255,404	8.4	614,016	1,614,132	9.1	665,184	1,797,820
2026	7,547,276	6.2	467,931	1,257,801	8.4	633,971	1,617,214	9.1	686,802	1,801,253

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 5,659,521	10.6%	\$599,909	\$ 1,878,452	10.7%	\$605,569	\$ 1,830,938	12.1%	\$684,802	\$ 2,083,039
2018	5,843,456	10.6	619,406	1,904,187	10.7	625,250	1,856,022	12.1	707,058	2,111,576
2019	6,033,368	10.6	639,537	1,928,198	10.7	645,570	1,879,425	12.1	730,038	2,138,202
2020	6,229,452	10.6	660,322	1,950,243	10.7	666,551	1,900,912	12.1	753,764	2,162,648
2021	6,431,909	10.6	681,782	1,970,059	10.7	688,214	1,920,227	12.1	778,261	2,184,622
2022	6,640,946	10.6	703,940	1,987,361	10.7	710,581	1,937,091	12.1	803,554	2,203,808
2023	6,856,777	10.6	726,818	2,001,838	10.7	733,675	1,951,201	12.1	829,670	2,219,861
2024	7,079,622	10.6	750,440	2,013,152	10.7	757,520	1,962,229	12.1	856,634	2,232,407
2025	7,309,710	10.6	774,829	2,020,937	10.7	782,139	1,969,817	12.1	884,475	2,241,040
2026	7,547,276	10.6	800,011	2,024,796	10.7	807,559	1,973,578	12.1	913,220	2,245,319

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 5,659,521	12.9%	\$730,078	\$ 2,159,505	13.6%	\$769,695	\$ 2,285,495	15.1%	\$854,588	\$ 2,486,998
2018	5,843,456	12.9	753,806	2,189,090	13.6	794,710	2,316,806	15.1	882,362	2,521,069
2019	6,033,368	12.9	778,304	2,216,693	13.6	820,538	2,346,019	15.1	911,039	2,552,858
2020	6,229,452	12.9	803,599	2,242,036	13.6	847,205	2,372,841	15.1	940,647	2,582,045
2021	6,431,909	12.9	829,716	2,264,817	13.6	874,740	2,396,951	15.1	971,218	2,608,281
2022	6,640,946	12.9	856,682	2,284,707	13.6	903,169	2,418,002	15.1	1,002,783	2,631,188
2023	6,856,777	12.9	884,524	2,301,350	13.6	932,522	2,435,616	15.1	1,035,373	2,650,354
2024	7,079,622	12.9	913,271	2,314,356	13.6	962,829	2,449,381	15.1	1,069,023	2,665,333
2025	7,309,710	12.9	942,953	2,323,306	13.6	994,121	2,458,853	15.1	1,103,766	2,675,640
2026	7,547,276	12.9	973,599	2,327,742	13.6	1,026,430	2,463,548	15.1	1,139,639	2,680,749

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

Cottleville Fire Protection District - Fire

Employer Contribution Rates (Contributory Plan - 3 Year FAS)

(4% member contributions are additional)

Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2017	\$ 5,659,521	6.5%	\$367,869	\$ 1,211,445	8.8%	\$498,038	\$ 1,555,357	9.5%	\$537,655	\$ 1,733,715
2018	5,843,456	6.5	379,825	1,228,042	8.8	514,224	1,576,665	9.5	555,128	1,757,467
2019	6,033,368	6.5	392,169	1,243,527	8.8	530,936	1,596,546	9.5	573,170	1,779,628
2020	6,229,452	6.5	404,914	1,257,744	8.8	548,192	1,614,799	9.5	591,798	1,799,974
2021	6,431,909	6.5	418,074	1,270,524	8.8	566,008	1,631,207	9.5	611,031	1,818,263
2022	6,640,946	6.5	431,661	1,281,682	8.8	584,403	1,645,533	9.5	630,890	1,834,232
2023	6,856,777	6.5	445,691	1,291,018	8.8	603,396	1,657,520	9.5	651,394	1,847,593
2024	7,079,622	6.5	460,175	1,298,314	8.8	623,007	1,666,888	9.5	672,564	1,858,035
2025	7,309,710	6.5	475,131	1,303,335	8.8	643,254	1,673,334	9.5	694,422	1,865,220
2026	7,547,276	6.5	490,573	1,305,824	8.8	664,160	1,676,529	9.5	716,991	1,868,782

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 5,659,521	11.1%	\$628,207	\$ 1,946,972	11.1%	\$628,207	\$ 1,896,045	12.7%	\$718,759	\$ 2,157,209
2018	5,843,456	11.1	648,624	1,973,645	11.1	648,624	1,922,021	12.7	742,119	2,186,762
2019	6,033,368	11.1	669,704	1,998,531	11.1	669,704	1,946,256	12.7	766,238	2,214,336
2020	6,229,452	11.1	691,469	2,021,380	11.1	691,469	1,968,507	12.7	791,140	2,239,652
2021	6,431,909	11.1	713,942	2,041,919	11.1	713,942	1,988,509	12.7	816,852	2,262,409
2022	6,640,946	11.1	737,145	2,059,852	11.1	737,145	2,005,973	12.7	843,400	2,282,278
2023	6,856,777	11.1	761,102	2,074,857	11.1	761,102	2,020,585	12.7	870,811	2,298,903
2024	7,079,622	11.1	785,838	2,086,583	11.1	785,838	2,032,005	12.7	899,112	2,311,896
2025	7,309,710	11.1	811,378	2,094,652	11.1	811,378	2,039,863	12.7	928,333	2,320,836
2026	7,547,276	11.1	837,748	2,098,652	11.1	837,748	2,043,758	12.7	958,504	2,325,268

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 5,659,521	13.4%	\$758,376	\$ 2,234,903	14.2%	\$803,652	\$ 2,365,342	15.7%	\$888,545	\$ 2,572,712
2018	5,843,456	13.4	783,023	2,265,521	14.2	829,771	2,397,747	15.7	917,423	2,607,958
2019	6,033,368	13.4	808,471	2,294,088	14.2	856,738	2,427,981	15.7	947,239	2,640,843
2020	6,229,452	13.4	834,747	2,320,316	14.2	884,582	2,455,740	15.7	978,024	2,671,036
2021	6,431,909	13.4	861,876	2,343,893	14.2	913,331	2,480,693	15.7	1,009,810	2,698,176
2022	6,640,946	13.4	889,887	2,364,478	14.2	943,014	2,502,479	15.7	1,042,629	2,721,872
2023	6,856,777	13.4	918,808	2,381,702	14.2	973,662	2,520,708	15.7	1,076,514	2,741,699
2024	7,079,622	13.4	948,669	2,395,163	14.2	1,005,306	2,534,954	15.7	1,111,501	2,757,194
2025	7,309,710	13.4	979,501	2,404,425	14.2	1,037,979	2,544,757	15.7	1,147,624	2,767,856
2026	7,547,276	13.4	1,011,335	2,409,016	14.2	1,071,713	2,549,616	15.7	1,184,922	2,773,141

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

Cottleville Fire Protection District - Fire

Employer Contribution Rates (Non-Contributory Plan - 5 Year FAS)

(0% member contributions are additional)

Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2017	\$ 5,659,521	10.0%	\$565,952	\$ 1,231,725	12.3%	\$696,121	\$ 1,539,803	13.0%	\$735,738	\$ 1,733,819
2018	5,843,456	10.0	584,346	1,248,599	12.3	718,745	1,560,898	13.0	759,649	1,757,572
2019	6,033,368	10.0	603,337	1,264,343	12.3	742,104	1,580,580	13.0	784,338	1,779,734
2020	6,229,452	10.0	622,945	1,278,798	12.3	766,223	1,598,651	13.0	809,829	1,800,082
2021	6,431,909	10.0	643,191	1,291,792	12.3	791,125	1,614,895	13.0	836,148	1,818,372
2022	6,640,946	10.0	664,095	1,303,137	12.3	816,836	1,629,078	13.0	863,323	1,834,342
2023	6,856,777	10.0	685,678	1,312,629	12.3	843,384	1,640,945	13.0	891,381	1,847,704
2024	7,079,622	10.0	707,962	1,320,048	12.3	870,794	1,650,219	13.0	920,351	1,858,147
2025	7,309,710	10.0	730,971	1,325,153	12.3	899,094	1,656,600	13.0	950,262	1,865,333
2026	7,547,276	10.0	754,728	1,327,683	12.3	928,315	1,659,763	13.0	981,146	1,868,895

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 5,659,521	14.5%	\$820,631	\$ 1,916,307	14.6%	\$826,290	\$ 1,854,676	16.0%	\$905,523	\$ 2,098,748
2018	5,843,456	14.5	847,301	1,942,560	14.6	853,145	1,880,085	16.0	934,953	2,127,501
2019	6,033,368	14.5	874,838	1,967,054	14.6	880,872	1,903,792	16.0	965,339	2,154,327
2020	6,229,452	14.5	903,271	1,989,543	14.6	909,500	1,925,558	16.0	996,712	2,178,957
2021	6,431,909	14.5	932,627	2,009,759	14.6	939,059	1,945,123	16.0	1,029,105	2,201,097
2022	6,640,946	14.5	962,937	2,027,409	14.6	969,578	1,962,206	16.0	1,062,551	2,220,428
2023	6,856,777	14.5	994,233	2,042,177	14.6	1,001,089	1,976,499	16.0	1,097,084	2,236,602
2024	7,079,622	14.5	1,026,545	2,053,719	14.6	1,033,625	1,987,670	16.0	1,132,740	2,249,243
2025	7,309,710	14.5	1,059,908	2,061,661	14.6	1,067,218	1,995,356	16.0	1,169,554	2,257,941
2026	7,547,276	14.5	1,094,355	2,065,598	14.6	1,101,902	1,999,166	16.0	1,207,564	2,262,252

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 5,659,521	16.8%	\$950,800	\$ 2,155,624	17.5%	\$990,416	\$ 2,281,128	19.0%	\$1,075,309	\$ 2,463,574
2018	5,843,456	16.8	981,701	2,185,156	17.5	1,022,605	2,312,379	19.0	1,110,257	2,497,325
2019	6,033,368	16.8	1,013,606	2,212,709	17.5	1,055,839	2,341,537	19.0	1,146,340	2,528,815
2020	6,229,452	16.8	1,046,548	2,238,007	17.5	1,090,154	2,368,308	19.0	1,183,596	2,557,727
2021	6,431,909	16.8	1,080,561	2,260,747	17.5	1,125,584	2,392,372	19.0	1,222,063	2,583,716
2022	6,640,946	16.8	1,115,679	2,280,602	17.5	1,162,166	2,413,383	19.0	1,261,780	2,606,407
2023	6,856,777	16.8	1,151,939	2,297,215	17.5	1,199,936	2,430,963	19.0	1,302,788	2,625,393
2024	7,079,622	16.8	1,189,376	2,310,198	17.5	1,238,934	2,444,702	19.0	1,345,128	2,640,231
2025	7,309,710	16.8	1,228,031	2,319,132	17.5	1,279,199	2,454,156	19.0	1,388,845	2,650,441
2026	7,547,276	16.8	1,267,942	2,323,560	17.5	1,320,773	2,458,842	19.0	1,433,982	2,655,502

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

Cottleville Fire Protection District - Fire

Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS)

(0% member contributions are additional)

Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2017	\$ 5,659,521	10.4%	\$588,590	\$ 1,271,000	12.7%	\$718,759	\$ 1,588,830	13.4%	\$758,376	\$ 1,790,980
2018	5,843,456	10.4	607,719	1,288,413	12.7	742,119	1,610,597	13.4	783,023	1,815,516
2019	6,033,368	10.4	627,470	1,304,659	12.7	766,238	1,630,906	13.4	808,471	1,838,409
2020	6,229,452	10.4	647,863	1,319,575	12.7	791,140	1,649,552	13.4	834,747	1,859,427
2021	6,431,909	10.4	668,919	1,332,983	12.7	816,852	1,666,313	13.4	861,876	1,878,320
2022	6,640,946	10.4	690,658	1,344,690	12.7	843,400	1,680,947	13.4	889,887	1,894,816
2023	6,856,777	10.4	713,105	1,354,485	12.7	870,811	1,693,192	13.4	918,808	1,908,618
2024	7,079,622	10.4	736,281	1,362,140	12.7	899,112	1,702,761	13.4	948,669	1,919,405
2025	7,309,710	10.4	760,210	1,367,407	12.7	928,333	1,709,346	13.4	979,501	1,926,827
2026	7,547,276	10.4	784,917	1,370,018	12.7	958,504	1,712,610	13.4	1,011,335	1,930,506

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 5,659,521	15.0%	\$848,928	\$ 1,978,844	15.0%	\$848,928	\$ 1,906,490	16.6%	\$939,481	\$ 2,166,467
2018	5,843,456	15.0	876,518	2,005,954	15.0	876,518	1,932,609	16.6	970,014	2,196,147
2019	6,033,368	15.0	905,005	2,031,248	15.0	905,005	1,956,978	16.6	1,001,539	2,223,839
2020	6,229,452	15.0	934,418	2,054,471	15.0	934,418	1,979,352	16.6	1,034,089	2,249,264
2021	6,431,909	15.0	964,786	2,075,346	15.0	964,786	1,999,464	16.6	1,067,697	2,272,119
2022	6,640,946	15.0	996,142	2,093,572	15.0	996,142	2,017,024	16.6	1,102,397	2,292,074
2023	6,856,777	15.0	1,028,517	2,108,822	15.0	1,028,517	2,031,717	16.6	1,138,225	2,308,770
2024	7,079,622	15.0	1,061,943	2,120,740	15.0	1,061,943	2,043,200	16.6	1,175,217	2,321,818
2025	7,309,710	15.0	1,096,457	2,128,941	15.0	1,096,457	2,051,101	16.6	1,213,412	2,330,797
2026	7,547,276	15.0	1,132,091	2,133,006	15.0	1,132,091	2,055,018	16.6	1,252,848	2,335,248

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2017	\$ 5,659,521	17.3%	\$979,097	\$ 2,224,269	18.1%	\$1,024,373	\$ 2,354,284	19.6%	\$1,109,266	\$ 2,541,935
2018	5,843,456	17.3	1,010,918	2,254,741	18.1	1,057,666	2,386,537	19.6	1,145,317	2,576,759
2019	6,033,368	17.3	1,043,773	2,283,172	18.1	1,092,040	2,416,630	19.6	1,182,540	2,609,250
2020	6,229,452	17.3	1,077,695	2,309,275	18.1	1,127,531	2,444,259	19.6	1,220,973	2,639,081
2021	6,431,909	17.3	1,112,720	2,332,739	18.1	1,164,176	2,469,095	19.6	1,260,654	2,665,896
2022	6,640,946	17.3	1,148,884	2,353,226	18.1	1,202,011	2,490,779	19.6	1,301,625	2,689,309
2023	6,856,777	17.3	1,186,222	2,370,368	18.1	1,241,077	2,508,923	19.6	1,343,928	2,708,899
2024	7,079,622	17.3	1,224,775	2,383,765	18.1	1,281,412	2,523,103	19.6	1,387,606	2,724,209
2025	7,309,710	17.3	1,264,580	2,392,983	18.1	1,323,058	2,532,860	19.6	1,432,703	2,734,744
2026	7,547,276	17.3	1,305,679	2,397,552	18.1	1,366,057	2,537,696	19.6	1,479,266	2,739,966

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
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