



The Initial Valuation For  
**Cole County SWCD**  
as of June 30, 2018



# Table of Contents

	<b>Page</b>
Actuary's Certification Letter .....	1
Alternate Plans Available .....	3
Employer Contribution Rates	
Regular Eligibility:	
Contributory Plan .....	4
Non-Contributory Plan .....	6
Rule of 80 Eligibility:	
Contributory Plan .....	8
Non-Contributory Plan .....	10
Employer Contribution Dollars .....	12
Appendix I	
Unfunded Actuarial Accrued Liability .....	15
Appendix II	
Summary of Financial Assumptions .....	17
Appendix III	
Summary of LAGERS Provisions .....	21
Appendix IV	
Benefit Illustrations .....	24
Appendix V	
Age & Service Characteristics of Employees .....	33



August 13, 2018

Cole County SWCD  
Jefferson City, 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, 2018.

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 June 30, 2018. 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,



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.

# Cole County SWCD

## 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	0.40%	3.60%	0.20%	4.20%
L-3	General	0.60	5.10	0.30	6.00
LT-4(65)	General	0.30	4.50	0.20	5.00
LT-5(65)	General	0.50	5.80	0.30	6.60
L-7	General	0.70	6.70	0.30	7.70
LT-8(65)	General	0.70	7.10	0.30	8.10
L-12	General	0.90	8.20	0.40	9.50
LT-14(65)	General	0.80	8.40	0.40	9.60
L-6	General	1.00	9.70	0.50	11.20

\* Prior service credit was given for vesting purposes only.

# Cole County SWCD

## 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	0.50%	3.90%	0.20%	4.60%
L-3	General	0.60	5.40	0.30	6.30
LT-4(65)	General	0.30	4.70	0.20	5.20
LT-5(65)	General	0.50	6.10	0.30	6.90
L-7	General	0.70	7.00	0.30	8.00
LT-8(65)	General	0.70	7.40	0.30	8.40
L-12	General	0.90	8.50	0.40	9.80
LT-14(65)	General	0.90	8.70	0.40	10.00
L-6	General	1.00	10.10	0.50	11.60

\* Prior service credit was given for vesting purposes only.

# Cole County SWCD

## 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	0.50%	7.20%	0.20%	7.90%
L-3	General	0.60	8.80	0.30	9.70
LT-4(65)	General	0.40	8.10	0.20	8.70
LT-5(65)	General	0.50	9.40	0.30	10.20
L-7	General	0.70	10.40	0.30	11.40
LT-8(65)	General	0.70	10.80	0.30	11.80
L-12	General	0.90	12.00	0.40	13.30
LT-14(65)	General	0.80	12.20	0.40	13.40
L-6	General	1.00	13.60	0.50	15.10

\* Prior service credit was given for vesting purposes only.



# Cole County SWCD

## 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	0.50%	7.50%	0.20%	8.20%
L-3	General	0.60	9.10	0.30	10.00
LT-4(65)	General	0.40	8.30	0.20	8.90
LT-5(65)	General	0.50	9.70	0.30	10.50
L-7	General	0.80	10.70	0.30	11.80
LT-8(65)	General	0.70	11.20	0.30	12.20
L-12	General	0.90	12.40	0.40	13.70
LT-14(65)	General	0.90	12.60	0.40	13.90
L-6	General	1.00	14.00	0.50	15.50

\* Prior service credit was given for vesting purposes only.

# Cole County SWCD

## 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	0.40%	3.80%	0.20%	4.40%
L-3	General	0.60	5.40	0.30	6.30
LT-4(65)	General	0.30	4.90	0.20	5.40
LT-5(65)	General	0.40	6.20	0.30	6.90
L-7	General	0.70	7.00	0.30	8.00
LT-8(65)	General	0.60	7.50	0.30	8.40
L-12	General	0.80	8.50	0.40	9.70
LT-14(65)	General	0.80	8.80	0.40	10.00
L-6	General	0.90	10.10	0.50	11.50

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

\* Prior service credit was given for vesting purposes only.

# Cole County SWCD

## 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			Total Employer Contribution Rate
		Prior Service Cost *	Current Cost	Disability Cost	
L-1	General	0.40%	4.10%	0.20%	4.70%
L-3	General	0.60	5.70	0.30	6.60
LT-4(65)	General	0.30	5.20	0.20	5.70
LT-5(65)	General	0.50	6.50	0.30	7.30
L-7	General	0.70	7.30	0.30	8.30
LT-8(65)	General	0.60	7.80	0.30	8.70
L-12	General	0.80	8.90	0.40	10.10
LT-14(65)	General	0.80	9.20	0.40	10.40
L-6	General	1.00	10.50	0.50	12.00

# 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.

\* Prior service credit was given for vesting purposes only.

# Cole County SWCD

## 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	0.50%	7.40%	0.20%	8.10%
L-3	General	0.60	9.10	0.30	10.00
LT-4(65)	General	0.30	8.50	0.20	9.00
LT-5(65)	General	0.50	9.90	0.30	10.70
L-7	General	0.70	10.70	0.30	11.70
LT-8(65)	General	0.60	11.20	0.30	12.10
L-12	General	0.80	12.30	0.40	13.50
LT-14(65)	General	0.80	12.60	0.40	13.80
L-6	General	0.90	14.00	0.50	15.40

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

\* Prior service credit was given for vesting purposes only.

# Cole County SWCD

## 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	0.50%	7.70%	0.20%	8.40%
L-3	General	0.60	9.30	0.30	10.20
LT-4(65)	General	0.30	8.80	0.20	9.30
LT-5(65)	General	0.50	10.20	0.30	11.00
L-7	General	0.70	11.00	0.30	12.00
LT-8(65)	General	0.60	11.60	0.30	12.50
L-12	General	0.80	12.70	0.40	13.90
LT-14(65)	General	0.80	13.00	0.40	14.20
L-6	General	1.00	14.40	0.50	15.90

# 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.

\* Prior service credit was given for vesting purposes only.

# Cole County SWCD

## Employer Contribution Dollars Regular Retirement Eligibility

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

### Contributory Plan

5 Year FAS	
Benefit Program	General
L-1	\$ 3,120
L-3	4,458
LT-4(65)	3,715
LT-5(65)	4,904
L-7	5,721
LT-8(65)	6,018
L-12	7,058
LT-14(65)	7,133
L-6	8,321

3 Year FAS	
Benefit Program	General
L-1	\$ 3,418
L-3	4,681
LT-4(65)	3,863
LT-5(65)	5,126
L-7	5,944
LT-8(65)	6,241
L-12	7,281
LT-14(65)	7,430
L-6	8,618

### Non-Contributory Plan

5 Year FAS	
Benefit Program	General
L-1	\$ 5,869
L-3	7,207
LT-4(65)	6,464
LT-5(65)	7,578
L-7	8,470
LT-8(65)	8,767
L-12	9,882
LT-14(65)	9,956
L-6	11,219

3 Year FAS	
Benefit Program	General
L-1	\$ 6,092
L-3	7,430
LT-4(65)	6,612
LT-5(65)	7,801
L-7	8,767
LT-8(65)	9,064
L-12	10,179
LT-14(65)	10,327
L-6	11,516

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.

# Cole County SWCD

## Employer Contribution Dollars Rule of 80 Retirement Eligibility

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

### Contributory Plan

5 Year FAS	
Benefit Program	General
L-1	\$ 3,269
L-3	4,681
LT-4(65)	4,012
LT-5(65)	5,126
L-7	5,944
LT-8(65)	6,241
L-12	7,207
LT-14(65)	7,430
L-6	8,544

3 Year FAS	
Benefit Program	General
L-1	\$ 3,492
L-3	4,904
LT-4(65)	4,235
LT-5(65)	5,424
L-7	6,167
LT-8(65)	6,464
L-12	7,504
LT-14(65)	7,727
L-6	8,916

### Non-Contributory Plan

5 Year FAS	
Benefit Program	General
L-1	\$ 6,018
L-3	7,430
LT-4(65)	6,687
LT-5(65)	7,950
L-7	8,693
LT-8(65)	8,990
L-12	10,030
LT-14(65)	10,253
L-6	11,442

3 Year FAS	
Benefit Program	General
L-1	\$ 6,241
L-3	7,578
LT-4(65)	6,910
LT-5(65)	8,173
L-7	8,916
LT-8(65)	9,287
L-12	10,327
LT-14(65)	10,550
L-6	11,813

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.

# Cole County SWCD

## Employees and Payroll Included in the Valuation

	General
Number of Employees	2
Annual Payroll	\$ 74,297

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:

### Cole County SWCD

#### 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	\$ 5,844	\$ 6,056	\$ 6,503	\$ 6,685
L-3	General	7,660	7,917	8,131	8,362
LT-4(65)	General	4,246	4,408	4,922	5,052
LT-5(65)	General	6,464	6,679	6,947	7,132
L-7	General	9,460	9,772	9,758	10,032
LT-8(65)	General	8,667	8,947	8,966	9,213
L-12	General	11,265	11,630	11,381	11,696
LT-14(65)	General	10,866	11,218	10,987	11,290
L-6	General	13,068	13,474	13,006	13,377

# Cole County SWCD

## 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	\$ 5,492	\$ 5,688	\$ 6,152	\$ 6,321
L-3	General	7,214	7,459	7,689	7,907
LT-4(65)	General	3,504	3,636	4,184	4,286
LT-5(65)	General	5,729	5,920	6,213	6,374
L-7	General	8,931	9,223	9,230	9,486
LT-8(65)	General	7,941	8,197	8,244	8,464
L-12	General	10,648	10,985	10,767	11,061
LT-14(65)	General	10,152	10,476	10,277	10,552
L-6	General	12,363	12,743	12,304	12,646

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

#### Normal Retirement

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

## Schedule 2. (Continued)

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

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



## **APPENDIX III**

---

### **SUMMARY OF LAGERS PROVISIONS**

# Missouri Local Government Employees Retirement System

## Brief Summary of LAGERS

### Benefits and Conditions Evaluated and/or Considered as of February 28, 2018

#### (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 <sup>1</sup> )

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>	Estimated Social Security <sup>2</sup>	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$ 525	\$ 889	\$1,414	94%
2,000	700	1,032	1,732	87%
2,500	875	1,175	2,050	82%
3,000	1,050	1,318	2,368	79%
3,500	1,225	1,462	2,687	77%
4,000	1,400	1,604	3,004	75%
25 Years of Service:				
\$1,500	\$ 375	\$ 889	\$1,264	84%
2,000	500	1,032	1,532	77%
2,500	625	1,175	1,800	72%
3,000	750	1,318	2,068	69%
3,500	875	1,462	2,337	67%
4,000	1,000	1,604	2,604	65%
15 Years of Service:				
\$1,500	\$225	\$ 889	\$1,114	74%
2,000	300	1,032	1,332	67%
2,500	375	1,175	1,550	62%
3,000	450	1,318	1,768	59%
3,500	525	1,462	1,987	57%
4,000	600	1,604	2,204	55%

<sup>1</sup> "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.

<sup>2</sup> "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 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

<sup>3</sup> 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 <sup>1</sup> )

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>	Estimated Social Security <sup>2</sup>	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$ 656	\$ 889	\$1,545	103%
2,000	875	1,032	1,907	95%
2,500	1,094	1,175	2,269	91%
3,000	1,313	1,318	2,631	88%
3,500	1,531	1,462	2,993	86%
4,000	1,750	1,604	3,354	84%
25 Years of Service:				
\$1,500	\$ 469	\$ 889	\$1,358	91%
2,000	625	1,032	1,657	83%
2,500	781	1,175	1,956	78%
3,000	938	1,318	2,256	75%
3,500	1,094	1,462	2,556	73%
4,000	1,250	1,604	2,854	71%
15 Years of Service:				
\$1,500	\$281	\$ 889	\$1,170	78%
2,000	375	1,032	1,407	70%
2,500	469	1,175	1,644	66%
3,000	563	1,318	1,881	63%
3,500	656	1,462	2,118	61%
4,000	750	1,604	2,354	59%

<sup>1</sup> "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.

<sup>2</sup> "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 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

<sup>3</sup> 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 <sup>1</sup> )**

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>	Estimated Social Security <sup>2</sup>	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$ 788	\$ 889	\$1,677	112%
2,000	1,050	1,032	2,082	104%
2,500	1,313	1,175	2,488	100%
3,000	1,575	1,318	2,893	96%
3,500	1,838	1,462	3,300	94%
4,000	2,100	1,604	3,704	93%
25 Years of Service:				
\$1,500	\$ 563	\$ 889	\$1,452	97%
2,000	750	1,032	1,782	89%
2,500	938	1,175	2,113	85%
3,000	1,125	1,318	2,443	81%
3,500	1,313	1,462	2,775	79%
4,000	1,500	1,604	3,104	78%
15 Years of Service:				
\$1,500	\$338	\$ 889	\$1,227	82%
2,000	450	1,032	1,482	74%
2,500	563	1,175	1,738	70%
3,000	675	1,318	1,993	66%
3,500	788	1,462	2,250	64%
4,000	900	1,604	2,504	63%

<sup>1</sup> "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.

<sup>2</sup> "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 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

<sup>3</sup> 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 <sup>1</sup> )**

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>	Estimated Social Security <sup>2</sup>	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$ 919	\$ 889	\$1,808	121%
2,000	1,225	1,032	2,257	113%
2,500	1,531	1,175	2,706	108%
3,000	1,838	1,318	3,156	105%
3,500	2,144	1,462	3,606	103%
4,000	2,450	1,604	4,054	101%
25 Years of Service:				
\$1,500	\$ 656	\$ 889	\$1,545	103%
2,000	875	1,032	1,907	95%
2,500	1,094	1,175	2,269	91%
3,000	1,313	1,318	2,631	88%
3,500	1,531	1,462	2,993	86%
4,000	1,750	1,604	3,354	84%
15 Years of Service:				
\$1,500	\$ 394	\$ 889	\$1,283	86%
2,000	525	1,032	1,557	78%
2,500	656	1,175	1,831	73%
3,000	788	1,318	2,106	70%
3,500	919	1,462	2,381	68%
4,000	1,050	1,604	2,654	66%

<sup>1</sup> "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.

<sup>2</sup> "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 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

<sup>3</sup> 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 <sup>1</sup> )

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>	Estimated Social Security <sup>2</sup>	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$1,050	\$ 889	\$1,939	129%
2,000	1,400	1,032	2,432	122%
2,500	1,750	1,175	2,925	117%
3,000	2,100	1,318	3,418	114%
3,500	2,450	1,462	3,912	112%
4,000	2,800	1,604	4,404	110%
25 Years of Service:				
\$1,500	\$ 750	\$ 889	\$1,639	109%
2,000	1,000	1,032	2,032	102%
2,500	1,250	1,175	2,425	97%
3,000	1,500	1,318	2,818	94%
3,500	1,750	1,462	3,212	92%
4,000	2,000	1,604	3,604	90%
15 Years of Service:				
\$1,500	\$ 450	\$ 889	\$1,339	89%
2,000	600	1,032	1,632	82%
2,500	750	1,175	1,925	77%
3,000	900	1,318	2,218	74%
3,500	1,050	1,462	2,512	72%
4,000	1,200	1,604	2,804	70%

<sup>1</sup> "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.

<sup>2</sup> "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 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

<sup>3</sup> 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 <sup>1</sup> to age 65)**  
**1.00% of FAS <sup>1</sup> at age 65)**

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>		Estimated Social Security <sup>2</sup>	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	\$ 889	\$1,050	\$1,414	70%	94%
2,000	1,400	700	1,032	1,400	1,732	70%	87%
2,500	1,750	875	1,175	1,750	2,050	70%	82%
3,000	2,100	1,050	1,318	2,100	2,368	70%	79%
3,500	2,450	1,225	1,462	2,450	2,687	70%	77%
4,000	2,800	1,400	1,604	2,800	3,004	70%	75%
25 Years of Service:							
\$1,500	\$ 750	\$ 375	\$ 889	\$ 750	\$1,264	50%	84%
2,000	1,000	500	1,032	1,000	1,532	50%	77%
2,500	1,250	625	1,175	1,250	1,800	50%	72%
3,000	1,500	750	1,318	1,500	2,068	50%	69%
3,500	1,750	875	1,462	1,750	2,337	50%	67%
4,000	2,000	1,000	1,604	2,000	2,604	50%	65%
15 Years of Service:							
\$1,500	\$ 450	\$225	\$ 889	\$ 450	\$1,114	30%	74%
2,000	600	300	1,032	600	1,332	30%	67%
2,500	750	375	1,175	750	1,550	30%	62%
3,000	900	450	1,318	900	1,768	30%	59%
3,500	1,050	525	1,462	1,050	1,987	30%	57%
4,000	1,200	600	1,604	1,200	2,204	30%	55%

<sup>1</sup> "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.

<sup>2</sup> "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 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

<sup>3</sup> 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<sup>1</sup> to age 65) 1.25% of FAS<sup>1</sup> at age 65)

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>		Estimated Social Security <sup>2</sup>	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	\$ 889	\$1,050	\$1,545	70%	103%
2,000	1,400	875	1,032	1,400	1,907	70%	95%
2,500	1,750	1,094	1,175	1,750	2,269	70%	91%
3,000	2,100	1,313	1,318	2,100	2,631	70%	88%
3,500	2,450	1,531	1,462	2,450	2,993	70%	86%
4,000	2,800	1,750	1,604	2,800	3,354	70%	84%
25 Years of Service:							
\$1,500	\$ 750	\$ 469	\$ 889	\$ 750	\$1,358	50%	91%
2,000	1,000	625	1,032	1,000	1,657	50%	83%
2,500	1,250	781	1,175	1,250	1,956	50%	78%
3,000	1,500	938	1,318	1,500	2,256	50%	75%
3,500	1,750	1,094	1,462	1,750	2,556	50%	73%
4,000	2,000	1,250	1,604	2,000	2,854	50%	71%
15 Years of Service:							
\$1,500	\$ 450	\$281	\$ 889	\$ 450	\$1,170	30%	78%
2,000	600	375	1,032	600	1,407	30%	70%
2,500	750	469	1,175	750	1,644	30%	66%
3,000	900	563	1,318	900	1,881	30%	63%
3,500	1,050	656	1,462	1,050	2,118	30%	61%
4,000	1,200	750	1,604	1,200	2,354	30%	59%

<sup>1</sup> "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.

<sup>2</sup> "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 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

<sup>3</sup> 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 <sup>1</sup> to age 65)**  
**1.50% of FAS <sup>1</sup> at age 65)**

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>		Estimated Social Security <sup>2</sup>	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	\$ 889	\$1,050	\$1,677	70%	112%
2,000	1,400	1,050	1,032	1,400	2,082	70%	104%
2,500	1,750	1,313	1,175	1,750	2,488	70%	100%
3,000	2,100	1,575	1,318	2,100	2,893	70%	96%
3,500	2,450	1,838	1,462	2,450	3,300	70%	94%
4,000	2,800	2,100	1,604	2,800	3,704	70%	93%
25 Years of Service:							
\$1,500	\$ 750	\$ 563	\$ 889	\$ 750	\$1,452	50%	97%
2,000	1,000	750	1,032	1,000	1,782	50%	89%
2,500	1,250	938	1,175	1,250	2,113	50%	85%
3,000	1,500	1,125	1,318	1,500	2,443	50%	81%
3,500	1,750	1,313	1,462	1,750	2,775	50%	79%
4,000	2,000	1,500	1,604	2,000	3,104	50%	78%
15 Years of Service:							
\$1,500	\$ 450	\$338	\$ 889	\$ 450	\$1,227	30%	82%
2,000	600	450	1,032	600	1,482	30%	74%
2,500	750	563	1,175	750	1,738	30%	70%
3,000	900	675	1,318	900	1,993	30%	66%
3,500	1,050	788	1,462	1,050	2,250	30%	64%
4,000	1,200	900	1,604	1,200	2,504	30%	63%

<sup>1</sup> "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.

<sup>2</sup> "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 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

<sup>3</sup> 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 <sup>1</sup> to age 65)  
1.75% of FAS <sup>1</sup> at age 65)

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>		Estimated Social Security <sup>2</sup>	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	\$ 889	\$1,050	\$1,808	70%	121%
2,000	1,400	1,225	1,032	1,400	2,257	70%	113%
2,500	1,750	1,531	1,175	1,750	2,706	70%	108%
3,000	2,100	1,838	1,318	2,100	3,156	70%	105%
3,500	2,450	2,144	1,462	2,450	3,606	70%	103%
4,000	2,800	2,450	1,604	2,800	4,054	70%	101%
25 Years of Service:							
\$1,500	\$ 750	\$ 656	\$ 889	\$ 750	\$1,545	50%	103%
2,000	1,000	875	1,032	1,000	1,907	50%	95%
2,500	1,250	1,094	1,175	1,250	2,269	50%	91%
3,000	1,500	1,313	1,318	1,500	2,631	50%	88%
3,500	1,750	1,531	1,462	1,750	2,993	50%	86%
4,000	2,000	1,750	1,604	2,000	3,354	50%	84%
15 Years of Service:							
\$1,500	\$ 450	\$ 394	\$ 889	\$ 450	\$1,283	30%	86%
2,000	600	525	1,032	600	1,557	30%	78%
2,500	750	656	1,175	750	1,831	30%	73%
3,000	900	788	1,318	900	2,106	30%	70%
3,500	1,050	919	1,462	1,050	2,381	30%	68%
4,000	1,200	1,050	1,604	1,200	2,654	30%	66%

<sup>1</sup> "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.

<sup>2</sup> "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 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

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

## **APPENDIX V**

---

### **AGE AND SERVICE CHARACTERISTICS OF EMPLOYEES**

# Cole County SWCD

June 30, 2018

## 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
<b>Under 20</b>									
20-24									
25-29									
30-34									
35-39									
40-44									
45-49									
50-54									
55-59									
60-64				1				1	\$ 36,420
65-69							1	1	\$ 37,877
<b>70 &amp; Over</b>									
<b>Totals</b>				<b>1</b>			<b>1</b>	<b>2</b>	<b>\$ 74,297</b>

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

Age: 64.6 years.

Benefit Service: 0.0 years.

Annual Pay: \$37,149.





August 13, 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 June 30, 2018 Initial Actuarial Valuation of LAGERS benefits for the employees of

Cole County SWCD

Sincerely,

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

Mita D. Drazilov, ASA, FCA, MAAA

MDD:wp

August 13, 2018

Cole County SWCD  
Jefferson City, Missouri

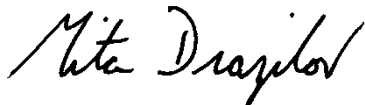
Ladies and Gentlemen:

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 June 30, 2018 Initial Valuation for the Cole County SWCD dated August 13, 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, 2018.

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

# Cole County SWCD - 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 Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2018	\$ 74,297	4.2%	\$3,120	\$ 5,844	6.0%	\$4,458	\$ 7,660	5.0%	\$3,715	\$ 4,246
2019	76,712	4.2	3,222	5,924	6.0	4,603	7,765	5.0	3,836	4,304
2020	79,205	4.2	3,327	5,999	6.0	4,752	7,863	5.0	3,960	4,358
2021	81,779	4.2	3,435	6,068	6.0	4,907	7,953	5.0	4,089	4,408
2022	84,437	4.2	3,546	6,130	6.0	5,066	8,034	5.0	4,222	4,453
2023	87,181	4.2	3,662	6,184	6.0	5,231	8,105	5.0	4,359	4,492
2024	90,014	4.2	3,781	6,229	6.0	5,401	8,164	5.0	4,501	4,525
2025	92,939	4.2	3,903	6,264	6.0	5,576	8,210	5.0	4,647	4,551
2026	95,960	4.2	4,030	6,288	6.0	5,758	8,242	5.0	4,798	4,569
2027	99,079	4.2	4,161	6,300	6.0	5,945	8,258	5.0	4,954	4,578

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2018	\$ 74,297	6.6%	\$4,904	\$ 6,464	7.7%	\$5,721	\$ 9,460	8.1%	\$6,018	\$ 8,667
2019	76,712	6.6	5,063	6,553	7.7	5,907	9,590	8.1	6,214	8,786
2020	79,205	6.6	5,228	6,636	7.7	6,099	9,711	8.1	6,416	8,897
2021	81,779	6.6	5,397	6,712	7.7	6,297	9,822	8.1	6,624	8,999
2022	84,437	6.6	5,573	6,780	7.7	6,502	9,922	8.1	6,839	9,090
2023	87,181	6.6	5,754	6,840	7.7	6,713	10,009	8.1	7,062	9,170
2024	90,014	6.6	5,941	6,890	7.7	6,931	10,082	8.1	7,291	9,237
2025	92,939	6.6	6,134	6,929	7.7	7,156	10,139	8.1	7,528	9,289
2026	95,960	6.6	6,333	6,956	7.7	7,389	10,178	8.1	7,773	9,325
2027	99,079	6.6	6,539	6,969	7.7	7,629	10,197	8.1	8,025	9,343

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2018	\$ 74,297	9.5%	\$7,058	\$ 11,265	9.6%	\$7,133	\$ 10,866	11.2%	\$8,321	\$ 13,068
2019	76,712	9.5	7,288	11,419	9.6	7,364	11,015	11.2	8,592	13,247
2020	79,205	9.5	7,524	11,563	9.6	7,604	11,154	11.2	8,871	13,414
2021	81,779	9.5	7,769	11,695	9.6	7,851	11,282	11.2	9,159	13,567
2022	84,437	9.5	8,022	11,814	9.6	8,106	11,397	11.2	9,457	13,705
2023	87,181	9.5	8,282	11,918	9.6	8,369	11,497	11.2	9,764	13,825
2024	90,014	9.5	8,551	12,005	9.6	8,641	11,581	11.2	10,082	13,926
2025	92,939	9.5	8,829	12,073	9.6	8,922	11,646	11.2	10,409	14,005
2026	95,960	9.5	9,116	12,120	9.6	9,212	11,691	11.2	10,748	14,059
2027	99,079	9.5	9,413	12,143	9.6	9,512	11,713	11.2	11,097	14,086

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 28<sup>th</sup> 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.

# Cole County SWCD - 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 % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 74,297	4.6%	\$3,418	\$ 6,056	6.3%	\$4,681	\$ 7,917	5.2%	\$3,863	\$ 4,408
2019	76,712	4.6	3,529	6,139	6.3	4,833	8,025	5.2	3,989	4,468
2020	79,205	4.6	3,643	6,216	6.3	4,990	8,126	5.2	4,119	4,524
2021	81,779	4.6	3,762	6,287	6.3	5,152	8,219	5.2	4,253	4,576
2022	84,437	4.6	3,884	6,351	6.3	5,320	8,303	5.2	4,391	4,622
2023	87,181	4.6	4,010	6,407	6.3	5,492	8,376	5.2	4,533	4,663
2024	90,014	4.6	4,141	6,454	6.3	5,671	8,437	5.2	4,681	4,697
2025	92,939	4.6	4,275	6,490	6.3	5,855	8,485	5.2	4,833	4,724
2026	95,960	4.6	4,414	6,515	6.3	6,045	8,518	5.2	4,990	4,742
2027	99,079	4.6	4,558	6,527	6.3	6,242	8,534	5.2	5,152	4,751

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 Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 74,297	6.9%	\$5,126	\$ 6,679	8.0%	\$5,944	\$ 9,772	8.4%	\$6,241	\$ 8,947
2019	76,712	6.9	5,293	6,771	8.0	6,137	9,906	8.4	6,444	9,070
2020	79,205	6.9	5,465	6,856	8.0	6,336	10,031	8.4	6,653	9,184
2021	81,779	6.9	5,643	6,934	8.0	6,542	10,146	8.4	6,869	9,289
2022	84,437	6.9	5,826	7,004	8.0	6,755	10,249	8.4	7,093	9,383
2023	87,181	6.9	6,015	7,066	8.0	6,974	10,339	8.4	7,323	9,465
2024	90,014	6.9	6,211	7,117	8.0	7,201	10,414	8.4	7,561	9,534
2025	92,939	6.9	6,413	7,157	8.0	7,435	10,473	8.4	7,807	9,588
2026	95,960	6.9	6,621	7,185	8.0	7,677	10,513	8.4	8,061	9,625
2027	99,079	6.9	6,836	7,199	8.0	7,926	10,533	8.4	8,323	9,643

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 Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 74,297	9.8%	\$7,281	\$ 11,630	10.0%	\$7,430	\$ 11,218	11.6%	\$8,618	\$ 13,474
2019	76,712	9.8	7,518	11,789	10.0	7,671	11,372	11.6	8,899	13,659
2020	79,205	9.8	7,762	11,938	10.0	7,921	11,515	11.6	9,188	13,831
2021	81,779	9.8	8,014	12,074	10.0	8,178	11,647	11.6	9,486	13,989
2022	84,437	9.8	8,275	12,197	10.0	8,444	11,765	11.6	9,795	14,131
2023	87,181	9.8	8,544	12,304	10.0	8,718	11,868	11.6	10,113	14,255
2024	90,014	9.8	8,821	12,394	10.0	9,001	11,954	11.6	10,442	14,359
2025	92,939	9.8	9,108	12,464	10.0	9,294	12,022	11.6	10,781	14,440
2026	95,960	9.8	9,404	12,512	10.0	9,596	12,068	11.6	11,131	14,496
2027	99,079	9.8	9,710	12,536	10.0	9,908	12,091	11.6	11,493	14,524

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 28<sup>th</sup> 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.

# Cole County SWCD - 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 Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2018	\$ 74,297	7.9%	\$5,869	\$ 6,503	9.7%	\$7,207	\$ 8,131	8.7%	\$6,464	\$ 4,922
2019	76,712	7.9	6,060	6,592	9.7	7,441	8,242	8.7	6,674	4,989
2020	79,205	7.9	6,257	6,675	9.7	7,683	8,346	8.7	6,891	5,052
2021	81,779	7.9	6,461	6,751	9.7	7,933	8,441	8.7	7,115	5,110
2022	84,437	7.9	6,671	6,820	9.7	8,190	8,527	8.7	7,346	5,162
2023	87,181	7.9	6,887	6,880	9.7	8,457	8,602	8.7	7,585	5,207
2024	90,014	7.9	7,111	6,930	9.7	8,731	8,665	8.7	7,831	5,245
2025	92,939	7.9	7,342	6,969	9.7	9,015	8,714	8.7	8,086	5,275
2026	95,960	7.9	7,581	6,996	9.7	9,308	8,748	8.7	8,349	5,295
2027	99,079	7.9	7,827	7,009	9.7	9,611	8,765	8.7	8,620	5,305

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2018	\$ 74,297	10.2%	\$7,578	\$ 6,947	11.4%	\$8,470	\$ 9,758	11.8%	\$8,767	\$ 8,966
2019	76,712	10.2	7,825	7,042	11.4	8,745	9,892	11.8	9,052	9,089
2020	79,205	10.2	8,079	7,131	11.4	9,029	10,017	11.8	9,346	9,204
2021	81,779	10.2	8,341	7,213	11.4	9,323	10,132	11.8	9,650	9,309
2022	84,437	10.2	8,613	7,286	11.4	9,626	10,235	11.8	9,964	9,404
2023	87,181	10.2	8,892	7,350	11.4	9,939	10,325	11.8	10,287	9,487
2024	90,014	10.2	9,181	7,404	11.4	10,262	10,400	11.8	10,622	9,556
2025	92,939	10.2	9,480	7,446	11.4	10,595	10,459	11.8	10,967	9,610
2026	95,960	10.2	9,788	7,475	11.4	10,939	10,499	11.8	11,323	9,647
2027	99,079	10.2	10,106	7,489	11.4	11,295	10,519	11.8	11,691	9,665

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2018	\$ 74,297	13.3%	\$9,882	\$ 11,381	13.4%	\$9,956	\$ 10,987	15.1%	\$11,219	\$ 13,006
2019	76,712	13.3	10,203	11,537	13.4	10,279	11,138	15.1	11,584	13,184
2020	79,205	13.3	10,534	11,682	13.4	10,613	11,278	15.1	11,960	13,350
2021	81,779	13.3	10,877	11,816	13.4	10,958	11,407	15.1	12,349	13,503
2022	84,437	13.3	11,230	11,936	13.4	11,315	11,523	15.1	12,750	13,640
2023	87,181	13.3	11,595	12,041	13.4	11,682	11,624	15.1	13,164	13,760
2024	90,014	13.3	11,972	12,129	13.4	12,062	11,709	15.1	13,592	13,860
2025	92,939	13.3	12,361	12,198	13.4	12,454	11,775	15.1	14,034	13,938
2026	95,960	13.3	12,763	12,245	13.4	12,859	11,821	15.1	14,490	13,992
2027	99,079	13.3	13,178	12,268	13.4	13,277	11,844	15.1	14,961	14,019

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 28<sup>th</sup> 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.

# Cole County SWCD - 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 Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2018	\$ 74,297	8.2%	\$6,092	\$ 6,685	10.0%	\$7,430	\$ 8,362	8.9%	\$6,612	\$ 5,052
2019	76,712	8.2	6,290	6,777	10.0	7,671	8,477	8.9	6,827	5,121
2020	79,205	8.2	6,495	6,862	10.0	7,921	8,584	8.9	7,049	5,186
2021	81,779	8.2	6,706	6,940	10.0	8,178	8,682	8.9	7,278	5,245
2022	84,437	8.2	6,924	7,011	10.0	8,444	8,770	8.9	7,515	5,298
2023	87,181	8.2	7,149	7,073	10.0	8,718	8,847	8.9	7,759	5,345
2024	90,014	8.2	7,381	7,125	10.0	9,001	8,911	8.9	8,011	5,384
2025	92,939	8.2	7,621	7,165	10.0	9,294	8,961	8.9	8,272	5,414
2026	95,960	8.2	7,869	7,193	10.0	9,596	8,996	8.9	8,540	5,435
2027	99,079	8.2	8,124	7,207	10.0	9,908	9,013	8.9	8,818	5,445

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2018	\$ 74,297	10.5%	\$7,801	\$ 7,132	11.8%	\$8,767	\$ 10,032	12.2%	\$9,064	\$ 9,213
2019	76,712	10.5	8,055	7,230	11.8	9,052	10,169	12.2	9,359	9,339
2020	79,205	10.5	8,317	7,321	11.8	9,346	10,297	12.2	9,663	9,457
2021	81,779	10.5	8,587	7,405	11.8	9,650	10,415	12.2	9,977	9,565
2022	84,437	10.5	8,866	7,480	11.8	9,964	10,521	12.2	10,301	9,662
2023	87,181	10.5	9,154	7,546	11.8	10,287	10,613	12.2	10,636	9,747
2024	90,014	10.5	9,451	7,601	11.8	10,622	10,690	12.2	10,982	9,818
2025	92,939	10.5	9,759	7,644	11.8	10,967	10,750	12.2	11,339	9,873
2026	95,960	10.5	10,076	7,674	11.8	11,323	10,792	12.2	11,707	9,911
2027	99,079	10.5	10,403	7,689	11.8	11,691	10,813	12.2	12,088	9,930

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2018	\$ 74,297	13.7%	\$10,179	\$ 11,696	13.9%	\$10,327	\$ 11,290	15.5%	\$11,516	\$ 13,377
2019	76,712	13.7	10,510	11,856	13.9	10,663	11,445	15.5	11,890	13,560
2020	79,205	13.7	10,851	12,005	13.9	11,009	11,589	15.5	12,277	13,731
2021	81,779	13.7	11,204	12,142	13.9	11,367	11,721	15.5	12,676	13,888
2022	84,437	13.7	11,568	12,265	13.9	11,737	11,840	15.5	13,088	14,029
2023	87,181	13.7	11,944	12,373	13.9	12,118	11,944	15.5	13,513	14,152
2024	90,014	13.7	12,332	12,463	13.9	12,512	12,031	15.5	13,952	14,255
2025	92,939	13.7	12,733	12,533	13.9	12,919	12,099	15.5	14,406	14,336
2026	95,960	13.7	13,147	12,581	13.9	13,338	12,146	15.5	14,874	14,391
2027	99,079	13.7	13,574	12,605	13.9	13,772	12,169	15.5	15,357	14,418

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 28<sup>th</sup> 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.

# Cole County SWCD - 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 Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2018	\$ 74,297	4.4%	\$3,269	\$ 5,492	6.3%	\$4,681	\$ 7,214	5.4%	\$4,012	\$ 3,504
2019	76,712	4.4	3,375	5,567	6.3	4,833	7,313	5.4	4,142	3,552
2020	79,205	4.4	3,485	5,637	6.3	4,990	7,405	5.4	4,277	3,597
2021	81,779	4.4	3,598	5,701	6.3	5,152	7,490	5.4	4,416	3,638
2022	84,437	4.4	3,715	5,759	6.3	5,320	7,566	5.4	4,560	3,675
2023	87,181	4.4	3,836	5,810	6.3	5,492	7,632	5.4	4,708	3,707
2024	90,014	4.4	3,961	5,852	6.3	5,671	7,688	5.4	4,861	3,734
2025	92,939	4.4	4,089	5,885	6.3	5,855	7,731	5.4	5,019	3,755
2026	95,960	4.4	4,222	5,908	6.3	6,045	7,761	5.4	5,182	3,770
2027	99,079	4.4	4,359	5,919	6.3	6,242	7,776	5.4	5,350	3,777

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2018	\$ 74,297	6.9%	\$5,126	\$ 5,729	8.0%	\$5,944	\$ 8,931	8.4%	\$6,241	\$ 7,941
2019	76,712	6.9	5,293	5,807	8.0	6,137	9,053	8.4	6,444	8,050
2020	79,205	6.9	5,465	5,880	8.0	6,336	9,167	8.4	6,653	8,152
2021	81,779	6.9	5,643	5,947	8.0	6,542	9,272	8.4	6,869	8,245
2022	84,437	6.9	5,826	6,007	8.0	6,755	9,366	8.4	7,093	8,329
2023	87,181	6.9	6,015	6,060	8.0	6,974	9,448	8.4	7,323	8,402
2024	90,014	6.9	6,211	6,104	8.0	7,201	9,517	8.4	7,561	8,463
2025	92,939	6.9	6,413	6,138	8.0	7,435	9,571	8.4	7,807	8,511
2026	95,960	6.9	6,621	6,162	8.0	7,677	9,608	8.4	8,061	8,544
2027	99,079	6.9	6,836	6,174	8.0	7,926	9,626	8.4	8,323	8,560

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2018	\$ 74,297	9.7%	\$7,207	\$ 10,648	10.0%	\$7,430	\$ 10,152	11.5%	\$8,544	\$ 12,363
2019	76,712	9.7	7,441	10,794	10.0	7,671	10,291	11.5	8,822	12,532
2020	79,205	9.7	7,683	10,930	10.0	7,921	10,421	11.5	9,109	12,690
2021	81,779	9.7	7,933	11,055	10.0	8,178	10,540	11.5	9,405	12,835
2022	84,437	9.7	8,190	11,167	10.0	8,444	10,647	11.5	9,710	12,965
2023	87,181	9.7	8,457	11,265	10.0	8,718	10,741	11.5	10,026	13,079
2024	90,014	9.7	8,731	11,347	10.0	9,001	10,819	11.5	10,352	13,174
2025	92,939	9.7	9,015	11,411	10.0	9,294	10,880	11.5	10,688	13,248
2026	95,960	9.7	9,308	11,455	10.0	9,596	10,922	11.5	11,035	13,299
2027	99,079	9.7	9,611	11,477	10.0	9,908	10,943	11.5	11,394	13,324

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 28<sup>th</sup> 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.

# Cole County SWCD - 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 Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2018	\$ 74,297	4.7%	\$3,492	\$ 5,688	6.6%	\$4,904	\$ 7,459	5.7%	\$4,235	\$ 3,636
2019	76,712	4.7	3,605	5,766	6.6	5,063	7,561	5.7	4,373	3,686
2020	79,205	4.7	3,723	5,839	6.6	5,228	7,656	5.7	4,515	3,732
2021	81,779	4.7	3,844	5,906	6.6	5,397	7,744	5.7	4,661	3,775
2022	84,437	4.7	3,969	5,966	6.6	5,573	7,823	5.7	4,813	3,813
2023	87,181	4.7	4,098	6,018	6.6	5,754	7,892	5.7	4,969	3,846
2024	90,014	4.7	4,231	6,062	6.6	5,941	7,949	5.7	5,131	3,874
2025	92,939	4.7	4,368	6,096	6.6	6,134	7,994	5.7	5,298	3,896
2026	95,960	4.7	4,510	6,120	6.6	6,333	8,025	5.7	5,470	3,911
2027	99,079	4.7	4,657	6,132	6.6	6,539	8,040	5.7	5,648	3,918

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2018	\$ 74,297	7.3%	\$5,424	\$ 5,920	8.3%	\$6,167	\$ 9,223	8.7%	\$6,464	\$ 8,197
2019	76,712	7.3	5,600	6,001	8.3	6,367	9,349	8.7	6,674	8,309
2020	79,205	7.3	5,782	6,077	8.3	6,574	9,467	8.7	6,891	8,414
2021	81,779	7.3	5,970	6,146	8.3	6,788	9,575	8.7	7,115	8,510
2022	84,437	7.3	6,164	6,208	8.3	7,008	9,672	8.7	7,346	8,596
2023	87,181	7.3	6,364	6,263	8.3	7,236	9,757	8.7	7,585	8,671
2024	90,014	7.3	6,571	6,309	8.3	7,471	9,828	8.7	7,831	8,734
2025	92,939	7.3	6,785	6,345	8.3	7,714	9,884	8.7	8,086	8,783
2026	95,960	7.3	7,005	6,370	8.3	7,965	9,922	8.7	8,349	8,817
2027	99,079	7.3	7,233	6,382	8.3	8,224	9,941	8.7	8,620	8,834

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2018	\$ 74,297	10.1%	\$7,504	\$ 10,985	10.4%	\$7,727	\$ 10,476	12.0%	\$8,916	\$ 12,743
2019	76,712	10.1	7,748	11,135	10.4	7,978	10,620	12.0	9,205	12,918
2020	79,205	10.1	8,000	11,275	10.4	8,237	10,754	12.0	9,505	13,081
2021	81,779	10.1	8,260	11,404	10.4	8,505	10,877	12.0	9,813	13,231
2022	84,437	10.1	8,528	11,520	10.4	8,781	10,988	12.0	10,132	13,365
2023	87,181	10.1	8,805	11,621	10.4	9,067	11,085	12.0	10,462	13,482
2024	90,014	10.1	9,091	11,706	10.4	9,361	11,166	12.0	10,802	13,580
2025	92,939	10.1	9,387	11,772	10.4	9,666	11,229	12.0	11,153	13,657
2026	95,960	10.1	9,692	11,818	10.4	9,980	11,272	12.0	11,515	13,710
2027	99,079	10.1	10,007	11,841	10.4	10,304	11,294	12.0	11,889	13,736

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 28<sup>th</sup> 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.



# Cole County SWCD - 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 % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 74,297	8.1%	\$6,018	\$ 6,152	10.0%	\$7,430	\$ 7,689	9.0%	\$6,687	\$ 4,184
2019	76,712	8.1	6,214	6,236	10.0	7,671	7,794	9.0	6,904	4,241
2020	79,205	8.1	6,416	6,315	10.0	7,921	7,892	9.0	7,128	4,294
2021	81,779	8.1	6,624	6,387	10.0	8,178	7,982	9.0	7,360	4,343
2022	84,437	8.1	6,839	6,452	10.0	8,444	8,063	9.0	7,599	4,387
2023	87,181	8.1	7,062	6,509	10.0	8,718	8,134	9.0	7,846	4,426
2024	90,014	8.1	7,291	6,556	10.0	9,001	8,193	9.0	8,101	4,458
2025	92,939	8.1	7,528	6,593	10.0	9,294	8,239	9.0	8,365	4,483
2026	95,960	8.1	7,773	6,618	10.0	9,596	8,271	9.0	8,636	4,500
2027	99,079	8.1	8,025	6,631	10.0	9,908	8,287	9.0	8,917	4,509

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 Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 74,297	10.7%	\$7,950	\$ 6,213	11.7%	\$8,693	\$ 9,230	12.1%	\$8,990	\$ 8,244
2019	76,712	10.7	8,208	6,298	11.7	8,975	9,356	12.1	9,282	8,357
2020	79,205	10.7	8,475	6,377	11.7	9,267	9,474	12.1	9,584	8,462
2021	81,779	10.7	8,750	6,450	11.7	9,568	9,582	12.1	9,895	8,559
2022	84,437	10.7	9,035	6,516	11.7	9,879	9,679	12.1	10,217	8,646
2023	87,181	10.7	9,328	6,573	11.7	10,200	9,764	12.1	10,549	8,722
2024	90,014	10.7	9,631	6,621	11.7	10,532	9,835	12.1	10,892	8,786
2025	92,939	10.7	9,944	6,658	11.7	10,874	9,891	12.1	11,246	8,836
2026	95,960	10.7	10,268	6,684	11.7	11,227	9,929	12.1	11,611	8,870
2027	99,079	10.7	10,601	6,697	11.7	11,592	9,948	12.1	11,989	8,887

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 Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 74,297	13.5%	\$10,030	\$ 10,767	13.8%	\$10,253	\$ 10,277	15.4%	\$11,442	\$ 12,304
2019	76,712	13.5	10,356	10,915	13.8	10,586	10,418	15.4	11,814	12,473
2020	79,205	13.5	10,693	11,053	13.8	10,930	10,549	15.4	12,198	12,630
2021	81,779	13.5	11,040	11,179	13.8	11,286	10,670	15.4	12,594	12,774
2022	84,437	13.5	11,399	11,293	13.8	11,652	10,778	15.4	13,003	12,904
2023	87,181	13.5	11,769	11,392	13.8	12,031	10,873	15.4	13,426	13,017
2024	90,014	13.5	12,152	11,475	13.8	12,422	10,952	15.4	13,862	13,112
2025	92,939	13.5	12,547	11,540	13.8	12,826	11,014	15.4	14,313	13,186
2026	95,960	13.5	12,955	11,585	13.8	13,242	11,057	15.4	14,778	13,237
2027	99,079	13.5	13,376	11,607	13.8	13,673	11,078	15.4	15,258	13,262

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 28<sup>th</sup> 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.

# Cole County SWCD - 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 Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2018	\$ 74,297	8.4%	\$6,241	\$ 6,321	10.2%	\$7,578	\$ 7,907	9.3%	\$6,910	\$ 4,286
2019	76,712	8.4	6,444	6,408	10.2	7,825	8,015	9.3	7,134	4,345
2020	79,205	8.4	6,653	6,489	10.2	8,079	8,116	9.3	7,366	4,400
2021	81,779	8.4	6,869	6,563	10.2	8,341	8,209	9.3	7,605	4,450
2022	84,437	8.4	7,093	6,630	10.2	8,613	8,292	9.3	7,853	4,495
2023	87,181	8.4	7,323	6,688	10.2	8,892	8,365	9.3	8,108	4,534
2024	90,014	8.4	7,561	6,737	10.2	9,181	8,426	9.3	8,371	4,567
2025	92,939	8.4	7,807	6,775	10.2	9,480	8,474	9.3	8,643	4,593
2026	95,960	8.4	8,061	6,801	10.2	9,788	8,507	9.3	8,924	4,611
2027	99,079	8.4	8,323	6,814	10.2	10,106	8,523	9.3	9,214	4,620

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2018	\$ 74,297	11.0%	\$8,173	\$ 6,374	12.0%	\$8,916	\$ 9,486	12.5%	\$9,287	\$ 8,464
2019	76,712	11.0	8,438	6,461	12.0	9,205	9,616	12.5	9,589	8,580
2020	79,205	11.0	8,713	6,542	12.0	9,505	9,737	12.5	9,901	8,688
2021	81,779	11.0	8,996	6,617	12.0	9,813	9,848	12.5	10,222	8,787
2022	84,437	11.0	9,288	6,684	12.0	10,132	9,948	12.5	10,555	8,876
2023	87,181	11.0	9,590	6,743	12.0	10,462	10,035	12.5	10,898	8,954
2024	90,014	11.0	9,902	6,792	12.0	10,802	10,108	12.5	11,252	9,019
2025	92,939	11.0	10,223	6,830	12.0	11,153	10,165	12.5	11,617	9,070
2026	95,960	11.0	10,556	6,856	12.0	11,515	10,204	12.5	11,995	9,105
2027	99,079	11.0	10,899	6,869	12.0	11,889	10,223	12.5	12,385	9,122

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability	Estimated Employer Contribution		Unfunded Actuarial Accrued Liability
		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars		As a % of Payroll	Annual Dollars	
2018	\$ 74,297	13.9%	\$10,327	\$ 11,061	14.2%	\$10,550	\$ 10,552	15.9%	\$11,813	\$ 12,646
2019	76,712	13.9	10,663	11,213	14.2	10,893	10,697	15.9	12,197	12,819
2020	79,205	13.9	11,009	11,354	14.2	11,247	10,832	15.9	12,594	12,981
2021	81,779	13.9	11,367	11,484	14.2	11,613	10,956	15.9	13,003	13,129
2022	84,437	13.9	11,737	11,601	14.2	11,990	11,067	15.9	13,425	13,262
2023	87,181	13.9	12,118	11,703	14.2	12,380	11,164	15.9	13,862	13,378
2024	90,014	13.9	12,512	11,788	14.2	12,782	11,245	15.9	14,312	13,475
2025	92,939	13.9	12,919	11,855	14.2	13,197	11,309	15.9	14,777	13,551
2026	95,960	13.9	13,338	11,901	14.2	13,626	11,353	15.9	15,258	13,603
2027	99,079	13.9	13,772	11,924	14.2	14,069	11,375	15.9	15,754	13,629

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 28<sup>th</sup> 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.